

# Anti-Dumping Commission

## **Exporter Questionnaire**



Case number: 495

Product: Steel reinforcing bar

From: Republic of Turkey

Investigation period: 1 October 2017 to 30 September 2018

Response due by: Monday 24 December 2018<sup>1</sup>

Response for Sections B to H extended to

14 January 2019

Case manager: Gavin Crooks

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Return completed questionnaire to:

investigations3@adcommission.gov.au

Anti-Dumping <u>www.adcommission.gov.au</u>

**Commission website:** 

<sup>&</sup>lt;sup>1</sup> As the actual due date of 23 December 2018 falls on a Sunday, the effective due date is the following business day.

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## SECTION A COMPANY INFORMATION

## A-1 Company representative and location

1. Please nominate a contact person within your company:

| Name:                    | Sedat Cevik             |
|--------------------------|-------------------------|
| Position in the company: | Reporting Supervisor    |
| Telephone:               | +90 216 681 26 00       |
| E-mail address:          | scevik@colakoglu.com.tr |

2. If you have appointed a representative, provide their contact details:

| Name:           | Moulis Legal   |
|-----------------|--|
| Address:        | 6/2 Brindabella Circuit Brindabella Business Park Canberra International Airport Australian Capital Territory Australia 2609 |
| Telephone:      | +61 2 6163 1000  |
| E-mail address: | charles.zhan@moulislegal.com   |

In nominating a representative, you are granting authority to the Commission to discuss matters relating to the case with the nominated representative, including your company's confidential information.

3. Please provide the location where the company's financial records are held.

The financial record of Çolakoglu Metalurji A.S. ("Çolakoglu") is held at its office address at Rüzgarlıbahçe Mahallesi, Kavak Sokak, No: 16, 34805 Kavacık, Beykoz, Istanbul, Turkey.

4. Please provide the location where the company's production records are held.

Çolakoglu produces the goods under consideration ("GUC") at its factory facility at Dilovası Organize Sanayi Bölgesi, 5. Kısım D 5007 Sokak Yunus Emre Caddesi No. 21 Dilovası, Kocaeli. The production records are accessible through the ERP system in the Istanbul office as indicated in A-1.3 above.

## A-2 Company information

1. What is the legal name of your business?

Çolakoglu Metalurji A.S.

2. Does your company trade under a different name and/or brand? If yes, provide details.

No. However export sales to Australia and certain other regions are conducted via Colakoglu's wholly owned subsidiary company Colakoglu Dis Ticaret A.S. (literally, Colakoglu foreign trade company, hereinafter "COTAS") being an export trading arm of Colakoglu.

3. Was your company ever known by a different legal and/or trading name? If yes, provide details.

Not applicable.

4. Provide a list of your current board of directors and any changes in the last two years.

Please see a list of board of directors in Attachment A-2.4. [CONFIDENTIAL ATTACHMENT] There have not been any changes in the last two years.

- 5. Is your company part of a group (e.g. parent company with subsidiaries, common ownership, joint-ventures)? If yes, provide:
  - (a) A diagram showing the complete ownership structure; and
  - (b) A list of all related companies and its functions

Please see Attachment A-2.5 [CONFIDENTIAL ATTACHMENT] for a list of Çolakoglu's affiliates and subsidiaries organized by their field of operation.

For the GUC exported to Australia, Çolakoglu is the manufacturer and seller of the goods. As indicated above, Çolakoglu facilitated the export sales in the name of its wholly owned subsidiary COTAS. [CONFIDENTIAL TEXT DELETED – corporate arrangement regarding export sales]

6. Is your company or parent company publicly listed?

If yes, please provide:

- (a) The stock exchange where it is listed; and
- (b) Any principle shareholders<sup>2</sup>

If no, please provide:

(a) A list of all principal shareholders and the shareholding percentages.

Çolakoglu is not publicly listed. A list of all principal shareholders and their shareholding percentages is provided in Attachment A-2.6 [CONFIDENTIAL ATTACHMENT].

7. What is the overall nature of your company's business? Include details of the products that your company manufacture and sell and the market your company sells into.

Çolakoglu is the manufacturer and seller for the GUC both in the Turkish domestic market and for export markets. Currently, apart from reinforcing bar, Çolakoglu also produces steel slab, billets, and hot rolled coil.

Çolakoglu is also the functional parent company of a group of companies whose operations include iron and steel production that offers billets, slabs, reinforcing bars, hot rolled coils, and hot rolled sheets, trading, investment, energy, logistics, aviation, mining, and hardware and software support services.

<sup>&</sup>lt;sup>2</sup> Principal shareholders are those who are able to cast, or control the casting of, 5% or more of the maximum amount of votes that could be cast at a general meeting of your company.

Çolakoglu's involvement in the iron and steel business began with the steel trade business that founder Mehmet Rüştü Çolakoglu started in Karaköy, Istanbul, in 1945. The first Çolakoglu rolling mill was commissioned in Sütlüce, Istanbul, in 1960. The first meltshop went into production in Dilovasi in 1969 to supply billets to the domestic market. The company strengthened its sectoral leadership when it started wire rod production in 1985. In 1990, Çolakoglu added reinforcing bars to its production line. Çolakoglu invested in a new meltshop and rolling mill for flat products in 2007. At the time the meltshop was commissioned, it was the world's largest electric arc furnace. Çolakoglu also made the first hot-rolled coil investment in the private sector in Turkey.

- 8. If your business does not perform all of the following functions in relation to the goods under consideration, then please provide names and addresses of the companies which perform each function:
  - (a) produce or manufacture;
  - (b) sell in the domestic market;
  - (c) export to Australia; and
  - (d) export to countries other than Australia.

Colakoglu performs all of these functions.

9. Provide your company's internal organisation chart.

Please see Attachment A-2.9 [CONFIDENTIAL ATTACHMENT].

10. Describe the functions performed by each group within the organisation.

As seen in Çolakoglu's organization chart, Çolakoglu's operations are structured by function, organized under the Board of Directors and the General Manager. The major divisions that are involved in the sale and manufacturing of subject merchandise are the manufacturing, product and process development, sales and marketing, supply chain, purchasing, trade operations and financial affairs departments.

Rebar is produced in Çolakoglu's rebar rolling mill, which is part of the manufacturing division. The sales and marketing division oversees the sale, distribution, and marketing of rebar in Turkey and other markets, and is responsible for the sale of rebar and related products. Rebar sales are conducted under "Billet and Rebar" sales department.

11. Does your company produce brochures, pamphlets or other promotional material? If yes, please provide them.

Please see Attachment A-2.11 for Çolakoglu's product catalogue.

## A-4 General accounting information

1. What is your financial accounting period?

Çolakoglu's financial accounting period is the calendar year, ie. 1 January to 31 December.

2. Are your financial accounts audited? If yes, who is the auditor?

Çolakoglu's statutory financial accounts are audited by independent tax auditors [CONFIDENTIAL TEXT DELETED - auditor]. Also, the company prepares consolidated audited financial statements that are prepared according to international financial reporting standards "IFRS", and are audited by [CONFIDENTIAL TEXT DELETED - auditor].

3. What currency are your accounts kept in?

**Turkish Lira** 

4. What is the name of your financial accounting system?

Colakoglu uses the SAP integrated ERP system as its financial accounting system.

5. What is the name of your sales system?

Colakoglu uses the SAP integrated ERP system as its sales system.

6. What is the name of your production system?

Colakoglu uses the SAP integrated ERP system as its production system

7. If your financial accounting, sales and production systems are different, how do the systems interact? Is it electronical or manual? Please provide a detailed explanation and include diagrams.

The systems are not different.

8. Do your accounting practices differ in any way from the generally accepted accounting principles in your country? If yes, please provide details.

**Collakoglu's accounting practices are in accordance with generally accepted accounting principles in Turkey.** 

9. Have there been any changes to your accounting practices and/or policies over the last two years? If yes, please provide details.

There have been no such changes.

### A-5 Financial Documents

 Please provide the two most recently completed annual reports and/or financial statements for your company and any other related companies involved in the production and sale of the goods.

Çolakoglu provides the consolidated group financial statements for financial years 2016 and 2017 [CONFIDENTIAL ATTACHMENTS] These consolidated financial statements cover all of the Çolakoglu group companies including COTAS.

- 2. If the financial statements in A-5.1 are unaudited, provide for each company:
  - (a) the tax returns relating to the same period; and
  - (b) reconciliation of the revenue, cost of goods sold, and net profit before tax between the financial statements and tax returns.

Colakoglu's financial statements as provided in A-5.1 are audited.

- 3. Does your company maintain different profit centres? If yes, provide profit and loss statements for the profit centre that the goods falls into for:
  - (a) the most recent financial year; and
  - (b) the period.

Not applicable, in that Çolakoglu does not have divisional profit and loss statements or statements for different profit centres.

- 4. If the period is different to your financial period, please provide:
  - (a) Income statements directly from your accounting information system covering the most recent financial period and the period; or
  - (b) Quarterly or half yearly income statements directly from your accounting system covering the most recent financial period and the period.

Çolakoglu provides income statements directly from accounting system for January to September 2017, calendar year 2017 and January to September 2018. An income statement covering the period is also included based on the information for the forementioned periods. Please see Attachment A-5.4 [CONFIDENTIAL ATTACHMENT].

5. Please provide a copy of your company's trial balance covering the most recent financial year.

Çolakoglu provides its monthly trial balance covering calendar year 2017 and for 2018 up to September [CONFIDENTIAL ATTACHMENT].

6. Please provide your company's chart of accounts

Çolakoglu provides its chart of accounts at Attachment A-5.6 [CONFIDENTIAL ATTACHMENT].

If any of the documents are not in English, please provide a complete translation of the documents.

## SECTION B EXPORT SALES TO AUSTRALIA

## **B-1** Australian export sales process

- 1. Provide details (and diagrams if appropriate) of the export sales process of your company and any entities (e.g. agents) including:
  - (a) Marketing and advertising activities
  - (b) Price determination and/or negotiation process
  - (c) Order placement process
  - (d) Order fulfilment process and lead time
  - (e) Delivery terms and process
  - (f) Invoicing process
  - (g) Payment terms and process

Çolakoglu sells directly to unaffiliated importers in Australia. The goods move from the manufacturing plant to a port of loading in Turkey and then are shipped to Australia. There are no agency or distributor agreements.

Çolakoglu's export sales team negotiate directly with unaffiliated importers in Australia. The negotiation process may involve face-to-face meetings as well as an exchange of correspondence. After initial discussions, [CONFIDENTIAL TEXT DELETED – detailed negotiation and sales process].

Çolakoglu is not involved in any marketing or any advertising activities in Australia. The delivery is made usually in containers. Invoicing takes place [CONFIDENTIAL TEXT DELETED – invoicing process]. Goods are shipped within [CONFIDENTIAL TEXT DELETED –number] days of the order is received.

[CONFIDENTIAL TEXT DELETED – corporate arrangement concerning Australian sales]

- 2. In what currency do you invoice your Australian customers? If it is not in your local currency:
  - (a) Do your customers pay you into a foreign currency denominated account? If yes, provide details;
  - (b) Do you use forward contracts to lock in the foreign exchange rate relating to the export sales? If yes, provide details;
  - (c) How is the exchange rate determined and how often is it updated in your accounting system?

Çolakoglu's customers in Australia pay in [CONFIDENTIAL TEXT DELETED – currency] into Çolakoglu's foreign currency accounts through letters of credit. [CONFIDENTIAL TEXT DELETED – use of forward contract] The exchange rate in accounting system is daily updated based on Turkish Central Bank exchange rates.

3. Are there any Australian customers related to your company? If yes, please provide a list of each related customer and provide details on how the selling price is set.

The Australian customers are not related to Colakoglu.

4. If sales are in accordance with price lists or price extras list, provide copies of these lists.

Colakoglu does not have any price lists for sales to Australia.

5. Do your export selling prices vary according to the distribution channel identified? If yes, provide details. Real differences in trade levels are characterised by consistent and distinct differences in functions and prices.

#### [CONFIDENTIAL TEXT DELETED - level of trade]

6. Did you provide on-invoice discounts and/or off-invoice rebates to any Australian customer or an associate of the customer in relation to the sale of the goods during the period? If yes, provide a description and explain the terms and conditions that must be met by the customer to obtain the discount.

### [CONFIDENTIAL TEXT DELETED – discount and rebate policy]

7. Did you issue any credit or debit notes (directly or indirectly) to the customer or associate of the customer in relation to the sale of the goods during the period? If yes, provide details of the credit/debit notes including the reasons the credit/debit notes were issued.

Çolakoglu did not issue any credit or debit notes (directly or indirectly) to the customer or associate of the customers in relation to the sale of the goods during the period.

- 8. The invoice date will normally be taken to be the date of sale. If you are making a claim that a different date should be taken as the date of sale:
  - (a) What date are you claiming as the date of sale?
  - (b) Why does this date best reflect the material terms of sale?

Invoice date has been reported as the date of sale.

## **B-2** Australian sales listing

- 1. Complete the worksheet named "B-2 Australian sales"
  - This worksheet lists all export sales (i.e. transaction by transaction) to Australia of the goods invoiced within the period.
  - If you have claimed in B-1.8 that the date of sale is one other than the invoice date, then add the sales within your claimed date of sale.
  - You must provide this list in electronic format using the template provided.
  - If you have used formulas to complete this worksheet, these formulas must be retained.
  - If there are any direct selling expenses incurred in respect of the exports to Australia not
    listed in the spreadsheet, add a column. For example, if the delivery terms make you
    responsible for arrival of the goods at an agreed point within Australia (e.g. delivered duty
    paid), insert additional columns in the spreadsheet for all other costs incurred.

Çolakoglu provides Australian sales listing in the requested format. [CONFIDENTIAL ATTACHMENT]

Direct expenses have been reported, in existing and added columns as applicable.

2. Provide a table listing the source of the data for each column in the export sales listing (B-2.1).

All the information reported in the export sales listing is sourced from the SAP report of Çolakoglu and COTAS, specifically, [CONFIDENTIAL TEXT DELETED – code] (Sales Detail Report). The expenses are reported based on actual charges by the service providers on a transaction by transaction basis. Model information is manually assigned to each transaction based on the product description in the SAP system.

[CONFIDENTIAL TEXT DELETED – explanation of confidential spreadsheet]

## **B-3** Sample export documents

- 1. Select the two largest invoices by value and provide the following documentation:
  - Contracts
  - Purchase order and order confirmation
  - · Commercial invoice and packing list
  - Proof of payment and accounts receivable ledger
  - · Documents showing bank charges
  - Invoices for inland transport
  - Invoices for port handling and other export charges
  - Bill of lading
  - Invoices for ocean freight and marine insurance (if applicable)
  - Country of origin certificates (if applicable)

If the documents are not in English, please provide a translation of the documents.

Please see Attachment B-3.1 [CONFIDENTIAL ATTACHMENT] being the relevant documents for the two largest invoices by value, CM3004/20180498-1 and CM3004/20180498-2.

2. For each document, please annotate the documents or provide a table reconciling the details in the export listing (in B-2) to the source documents (in B-3.1).

The nature and description of each document is typed or identified on the relevant document as well as for the relevant field in the B-2 sales listing it relates to. An annotation is provided in Attachment B-3.2 [CONFIDENTIAL ATTACHMENT].

[CONFIDENTIAL TEXT DELETED - explanation of confidential spreadsheet]

### B-4 Reconciliation of sales to financial accounts

- 1. Please complete the worksheet named "B-4 Upwards sales" to demonstrate that the sales listing in B-2, D-2 and F-2 are complete.
  - You must provide this list in electronic format using the template provided.
  - Please use the currency that your accounts are kept in.
  - If you have used formulas to complete this worksheet, these formulas must be retained.

## Please see Attachment B-4 [CONFIDENTIAL ATTACHMENT].

The currency is accounting currency i.e. Turkish Lira. Because Çolakoglu prepares quarterly income statements, the income statement figure corresponds to the investigation period and no adjustment is required for "Difference between Investigation and Accounting Periods" Also, Çolakoglu's accounting is based on actual figures so no variances are reported.

2. Please provide all documents (e.g. general ledgers, trial balances), other than those in A-5, B-2 and D-2, required to complete the "Upwards sales" worksheet. If the documents include spreadsheets, all formulas used must be retained.

The reconciliation is largely based on the trial balance, which is provided in Attachment A-5.5. Please refer to Attachment B-4 for further information.

- 3. For any amount in the "Upwards sales" worksheet that is hard coded (i.e. not a formula), please cross-reference by providing:
  - the name of the source document, including the relevant page number, in column F of the worksheet; <u>and</u>
  - highlight or annotate the amount shown in the source document.

As noted in B-4, the reconciliation is based on information from trial balance. The relevant account number has been provided.

## B-5 Reconciliation of direct selling expenses to financial accounts

- 1. Please complete the worksheet named "B-5 Upwards selling expense" to demonstrate that the direct selling expenses (e.g. Inland transport) in B-2 and D-2 are complete.
  - You must provide this list in electronic format using the template provided.
  - Please use the currency that your accounts are kept in.
  - If you have used formulas to complete this worksheet, these formulas must be retained.
- 2. Please provide all documents (e.g. general ledgers, trial balances), other than those in A-5, B-2 and D-2, required to complete the "Upwards SG&A" worksheet. If the documents include spreadsheets, all formulas used must be retained.
- 3. For any amount in the "Upwards sales" worksheet that is hard coded (i.e. not a formula), please cross-reference by providing:
  - the name of the source document, including the relevant page number, in column F of the worksheet; <u>and</u>
  - highlight or annotate the amount shown in the source document.

As noted above, actual charges on a transaction specific basis have been reported based on actual expenses incurred per transaction. The direct expenses are identified in G-4 below.

## SECTION C EXPORTED GOODS AND LIKE GOODS

## C-1 Models exported to Australia

1. Fully describe all of the goods your company exported to Australia during the period. Include specification details and any technical and illustrative material that may be helpful in identifying, or classifying, the goods exported to Australia.

The goods Çolakoglu exported to Australia are steel reinforcing bars conforming to Australian specification grade B 500N in lengths ranging from 6 to 12 meters and diameters ranging from 12 to 32 mm. A copy of the relevant Australian standard is provided in Attachment C-1.1

- 1. Provide a list of MCCs of the goods exported to Australia. This must cover all MCCs listed in the Australian sales listing in B-2.
  - This list must be disclosed in the public record version of the response.

**Colakoglu sold the following MCCs to Australia.** 

- P-C-S-B-1
- P-C-S-B-2
- P-C-S-C-1
- P-C-S-C-2

## C-2 Models sold in the domestic market

1. Fully describe all like goods your company sold on the domestic market during the period. Include specification details and any technical and illustrative material that may be helpful in identifying, or classifying, the like goods sold on the domestic market.

The like goods Çolakoglu sold in the domestic market are steel reinforcing bars conforming to Turkish standard TSE 708 grades B420, B500, and S420 in lengths ranging from 6 to 14 meters and diameters ranging from 8 to 32 mm. Çolakoglu also sold a limited amount of ASTM A706 Grade 60 product. A copy of the Turkish standard TSE 708 and the standard for ASTM A706 are provided in Attachment C-2.1 [CONFIDENTIAL ATTACHMENT].

In this regard, Çolakoglu would like to draw the Commission's attention to the fact that, in the Turkish domestic market, Colakoglu's rebar with yield strength of 420mpa and 500mpa are considered like goods. Whilst rebar with yield strength 420mpa is the most common grade used in Turkey, customers occasionally require products with 500mpa. Such demand can be [CONFIDENTIAL TEXT DELETED – technical production requirement]. This slight modification [CONFIDENTIAL TEXT DELETED – impact on pricing]. The likeness of these products is also supported in the cost to make information provided under G-3.1. As shown, products with MCCs which are otherwise identical but for the different yield strength sub-category in B and C [CONFIDENTIAL TEXT DELETED – cost comparison].

For the purpose of complying with the requirement of this EQ, Çolakoglu has reported its domestic sales and cost based on the Commission's default MCC structure, separating products with yield strength of 420mpa and 500mpa under identifiers B and C separately. However, in light of the commercial reality in the Turkish domestic market, and the [CONFIDENTIAL TEXT DELETED – cost comparison], Çolakoglu hereby

proposes to modify the MCC so that its products with yield strength 420mpa and 500mpa should be considered as like goods for model matching purpose. That is, for Çolakoglu, products with yield strength 420mpa and 500mpa should be identified as fall within the same sub-category for MCC purpose.

- 2. Provide a list of MCCs of like goods sold on the domestic market. This must cover all MCCs listed in the domestic sales listing in D-2.
  - This list must be disclosed in the public record version of the response.

**Colakoglu sold the following MCCs in the domestic market.** 

- N-A-S-A-1
- P-B-S-A-2
- P-B-S-B-2
- P-B-S-B-3
- P-B-S-C-2
- P-B-S-C-3
- P-B-S-D-2
- P-C-S-A-2
- P-C-S-B-2
- P-C-S-C-2
- P-C-S-D-2

## C-3 Internal product codes

- 1. Does your company use product codes or stock keeping unit (SKU) codes?
  - If yes:
    - (a) Provide details of the product or SKU coding system for the goods, such as a legend or key of the meaning for each code within the product or SKU code.
    - (b) Provide details on how you mapped the product or SKU codes to the MCC for the purpose of completing this questionnaire.
    - (c) Provide a table of showing the product or SKU codes for each MCC.

If no:

(a) Provide details on the method used to identify the MCC in the sales and cost spreadsheets.

[CONFIDENTIAL TEXT DELETED – product coding and MCC mapping process]

## SECTION D DOMESTIC SALES

## **D-1** Domestic sales process

- 1. Provide details (and diagrams if appropriate) of the domestic sales process of your company and any other related entities including:
  - (a) Marketing and advertising activities
  - (b) Price determination and/or negotiation process
  - (c) Order placement process
  - (d) Order fulfilment process and lead time
  - (e) Delivery terms and process
  - (f) Invoicing process
  - (g) Payment terms and process

Çolakoglu's domestic sales team negotiates commercial terms with its domestic customers generally by email or phone. [CONFIDENTIAL TEXT DELETED – sales process].

Final commercial and technical terms are then input as a confirmed sales order into the system, which is electronically transmitted to the manufacturing units to be added to the production plan. Once the production of customer's order is completed, the system sends an automatic email informing the customer of the readiness of the order. The customer specifies delivery details and the goods are then shipped to the customer accordingly. For each shipment a waybill ("sevk irsaliyesi") is created. Invoices are issued the same or the next business day.

For domestic sales, [CONFIDENTIAL TEXT DELETED – sales and invoicing practice]. Once the details are finalized, the invoice is prepared and the goods are shipped.

Payment time is specified when the order is made and is made either in advance of delivery or on a deferred basis. A flowchart of the sales process is provided in Attachment D-1.1

Colakoglu sells rebar to both traders and end users in the domestic market.

2. Are any domestic customers related to your company? If yes, please provide a list of each related customer and provide details on how the selling price is set.

Çolakoglu does not sell subject products to affiliated companies in the domestic market

3. If sales are in accordance with price lists or price extras list, provide copies of these lists.

Çolakoglu does not use price lists.

4. Do your domestic selling prices vary according to the distribution channel identified? If yes, provide details. Real differences in trade levels are characterised by consistent and distinct differences in functions and prices.

[CONFIDENTIAL TEXT DELETED - pricing policy regarding level of trade]

5. Did you provide on-invoice discounts and/or off-invoice rebates to the customer or an associate of the customer in relation to the sale of the like goods during the period? If yes, provide a

description; and explain the terms and conditions that must be met by the importer to obtain the discount.

### [CONFIDENTIAL TEXT DELETED – discount and rebate policy]

6. Did you issue any credit or debit notes (directly or indirectly) to the customer or associate of the customer in relation to the sale of the like goods during the period? If yes, provide details of the credit/debit notes including the reasons the credit/debit notes were issued.

In some rare occasions, Çolakoglu issued or received credit or debit notes in relation to pricing errors. These price adjustments are captured in field "Other Charges" where applicable to subject products. Please see further details in E-4.3 below.

- 7. The invoice date will normally be taken to be the date of sale. If you are making a claim that a different date should be taken as the date of sale:
  - (a) What date are you claiming as the date of sale?
  - (b) Why does this date best reflects the material terms of sale?

Colakoglu agrees the date of sale in the home market should be invoice date.

## D-2 Domestic sales listing

- 1. Complete the worksheet named "D-2 Domestic sales"
  - This worksheet lists all domestic sales (i.e. transaction by transaction) of like goods invoiced within the period, even if they are models not exported to Australia.
  - If you have claimed in D-1.7 that the date of sale is one other than the invoice date, then add the sales within your claimed date of sale.
  - You must provide this list in electronic format using the template provided.
  - If you have used formulas to complete this worksheet, these formulas must be retained.
  - If there are any other costs, charges or expenses incurred in respect of the sales listed which have not been identified in the table in question D-2 above, add a column for each item. For example, certain other selling expenses incurred.

Çolakoglu provides the domestic sales listing as requested in Attachment D-2.1 [CONFIDENTIAL ATTACHMENT]

Çolakoglu added certain fields to the format for ease of reference. These fields are listed below:

- 0 Sequence No: This field is added for easier reference to source extract Çolakoglu worked with
  - Customer Code: System code for the customer
  - o Description of the Product (since product code is not used)
- 11 Gross invoice value (Original Currency): total value in the currency invoiced
- 11.1 Currency: Certain domestic sales are made in US dollars. The currency field is added to indicate the sale currency
- 11.2 FX Rate: exchange rate for sale in US dollars
- 11.3 Gross invoice value (TL): Invoice value converted to TL
- 11.4 Unit Gross Invoice Value (TL/Ton) Unit invoice value converted to TL/ton

- 22 Other costs (Billing Adjustment) TL: billing corrections for certain transactions
- 23 Other costs (Credit Cost) TL: The credit cost for offering terms to the customer. Calculated by Gross invoice value (TL) x Interest Rate (12.68% - see E-1.1) x Payment terms (days) / 365
- 24 other costs (inventory carrying) TL: the inventory carrying costs calculated based on average inventory turnover and applicable interest rate.
- 2. Provide a table listing the source of the data for each column in the domestic sales listing prepared for your response to question D-2.1.

Çolakoglu provides its sales listing in Attachment D-2 as requested. All the information reported in the domestic sales listing is provided in the SAP report [CONFIDENTIAL TEXT DELETED – code] (Sales Detail Report). The expenses are reported based on actual charges or allocations as explained in Section E.

## D-3 Sample domestic sales documents

- 1. Select the two largest invoices by value and provide the following documentation:
  - Contracts
  - Purchase order and order confirmation
  - Commercial invoice and packing list
  - Proof of payment and accounts receivable ledger
  - · Documents showing bank charges
  - · Delivery invoices

If the documents are not in English, please provide a translation of the documents.

Please see the requested documentation in Attachment D-3.1 [CONFIDENTIAL ATTACHMENT]

The two largest invoices by value are [CONFIDENTIAL TEXT DELETED – domestic sales samples].

2. For each document, please annotate the documents or provide a table reconciling the details in the domestic sales listing (in D-2) to the source documents (in D-3.1).

The nature and description of each document is typed on the relevant document as well as which field in the sales listing it supports. Also, relevant parts referencing D-2 are marked on the sales documents. An annotation is provided in Attachment D-3.2 [CONFIDENTIAL ATTACHMENT].

Certain expense invoices (such as inland freight and survey) cover more sales than the one being presented but the unit value of the reported expense will tie to the invoice.

## D-4 Reconciliation of sales to financial accounts

This section is not required if you have completed B-4.

- 1. Please complete the worksheet named "B-4 Upwards sales" to demonstrate that the sales listing in D-2 is complete.
  - You must provide this list in electronic format using the template provided.

- Please use the currency that your accounts are kept in.
- If you have used formulas to complete this worksheet, these formulas must be retained.
- Please provide all documents (e.g. general ledgers, trial balances), other than those in A-5 and D-2, required to complete the "Upwards sales" worksheet. If the documents include spreadsheets, all formulas used must be retained.
- 3. For any amount in the "Upwards sales" worksheet that is hard coded (i.e. not a formula), please cross-reference by providing:
  - the name of the source document, including the relevant page number, in column F of the worksheet; <u>and</u>
  - highlight or annotate the amount shown in the source document.

Please see Attachment B-4 [CONFIDENTIAL ATTACHMENT]

## SECTION E DUE ALLOWANCE

## E-1 Credit expense

- 1. Do you provide credit to any domestic customers in relation to sales of like goods (i.e. payment terms that are not on a cash or pre-payment basis)? If yes:
  - (a) Do you provide a rolling credit facility to your domestic customers (i.e. no specific payment terms agreed at the time of sale)? If yes:
    - i. Calculate the accounts receivable turnover for each domestic customer (credit sales divided by the average accounts receivable).
    - ii. Calculate the average credit term for each domestic customer by dividing 365 by the accounts receivable turnover.

Çolakoglu provides payment terms up to [CONFIDENTIAL TEXT DELETED – number] days in the domestic market. These terms are provided in field "Payment terms (days)"

(b) Do you have short term borrowings or an overdraft facility? If yes, what is the interest rate, or average of interest rates?

Çolakoglu does not have short term borrowings or an overdraft facility. For purposes of calculating a credit expense for domestic sales, Çolakoglu relied on Turkish Central Bank Overnight Interest rates for TL which are provided in Attachment E-1.1 (b) [CONFIDENTIAL ATTACHMENT]

(c) Do you have term deposits or other cash product (e.g. bonds)? If yes, what is the interest rate, or average of interest rates?

Çolakoglu does have term deposits. The interest rates for the time deposits are provided in the consolidated financial statements on page 52. This part is provided again in Attachment E-1.1 (c) [CONFIDENTIAL ATTACHMENT].

2. Do you provide credit to any Australian customers in relation to sales of the goods (i.e. payment terms that are not on a cash or pre-payment basis)?

Çolakoglu does not provide credit to Australian customers. All sales are paid on an L/C at sight basis i.e. as soon as the sales documents are submitted to the bank, the value of goods is deposited.

#### If yes:

- (a) Do you provide a rolling credit facility to your Australian customers (i.e. no specific payment terms agreed at the time of sale)? If yes:
  - Calculate the accounts receivable turnover for each domestic customer (credit sales divided by the average accounts receivable).
  - ii. Calculate the average credit term for each domestic customer by dividing 365 by the accounts receivable turnover.
- (b) If your Australian customers pay you into a foreign currency denominated account (question B-1.2(a) refers):
  - i. Do you have short term borrowings or an overdraft facility denominated in the same foreign currency? If yes, what is the interest rate, or average of interest rates?

ii. What is the interest rate, or average of interest rates, applying to term deposits or other cash product (e.g. bonds) denominated in the same foreign currency? If yes, what is the interest rate, or average of interest rates?

## E-2 Packaging

1. What is the packaging used for your domestic sales of like goods?

Common packaging used for domestic sales involves wire rod for tying and securing bundles, tags and signees used to attach tags to each bundle. These expenses are accumulated in GL account [CONFIDENTIAL TEXT DELETE – account number] and roll up to the cost of manufacture.

2. What is the packaging used for your export sales of the goods to Australia?

Packaging used for export sales contains the common packaging costs above plus wooden dunnage. These expenses are accumulated in GL account [CONFIDENTIAL TEXT DELETE – account number] in selling and marketing expenses.

- 3. If there are distinct differences in packaging between your domestic and export sales:
  - (a) Provide details of the differences.
  - (b) Calculate the weighted average packaging cost for each model sold on the domestic market.
  - (c) Calculate the weighted average packaging cost for each model exported to Australia.

Please see Attachment E-2.3 [CONFIDENTIAL ATTACHMENT] for the calculation of per unit packaging expense, separately for export and domestic. As shown here in this attachment, the common packing expenses (domestic) is taken directly from the cost extract on a per product basis and summarized by model codes. Per unit export packing expenses are added that are calculated by taking the total packaging expenses reported in [CONFIDENTIAL TEXT DELETE – account number] and dividing by total export quantity. The main difference between export and domestic packing are the additional wooden dunnage placed in between bundles used for export ocean freight for the purpose of avoiding friction during shipping.

## E-3 Delivery

1. Are any domestic sales of like goods delivered to the customer? If yes, how were the transportation costs calculated in the domestic sales listing in D-2?

Çolakoglu makes both delivered and ex works sales in the domestic market. The delivery terms are recorded in the order and reported for each sale in the column for Delivery terms in Attachment D-2.

[CONFIDENTIAL TEXT DELETE – freight cost record for domestic sales] To report inland transportation, Çolakoglu obtained freight schedules applicable for the period of investigation for each destination and applied the per unit freight as per schedules for all delivered sales specific to the destination.

2. What are the delivery terms of the export sales of the goods to Australia?

All export sales to Australia are made on [CONFIDENTIAL TEXT DELETE – shipping term].

3. If the delivery terms of the Australian sales includes delivery to the port, how were the inland transport and port charges calculated in the Australian sales listing in B-2?

Delivery to the port in Turkey is reported on a transaction specific basis based on actual invoices pertaining to the order.

4. If the delivery terms of the Australian sales includes ocean freight, how was the ocean freight cost calculated in the Australian sales listing in B-2?

Ocean freight is reported on a transaction specific basis based on actual invoices pertaining to the order.

5. If the delivery terms of the Australian sales includes marine insurance, how was the marine insurance calculated in the Australian sales listing in B-2?

Çolakoglu did not incur marine insurance costs for sales to Australia.

6. If the delivery terms of the Australian sales includes delivered duty paid, how were the Australian importation and delivery costs calculated in the Australian sales listing in B-2?

Çolakoglu did not incur Australian importation and delivery costs for sales to Australia.

## E-4 Other direct selling expenses

1. Do you provide sales commissions for domestic sales of like goods and/or export sales of the goods? If yes, provide details.

Colakoglu did not pay commissions for domestic sales.

- 2. Are there any differences in tax liability between domestic and export sales? If yes, provide details, for example:
  - What is the rate of value-added tax (VAT) on sales of the goods and like goods?
  - How is VAT accounted for in your records in relation to sales of the goods and like goods?
  - Do you receive a VAT refund in relation to sales of the goods and/or like goods?
  - Do you receive a remission or drawback of import duties on inputs consumed in the productions of the goods or like goods?

The only difference in tax liability between domestic and export sales relates to the exemption on tax and duty for raw material imports used for producing goods for exports.

Çolakoglu's Australian sales of the goods is eligible for import duty and tax exemptions under the Turkish inward processing regime ("IPR"). The IPR provides such exemptions to the Turkish manufacturer/exporters by permitting manufacturer/exporters to import raw materials free of import duties and value added tax ("VAT") if such inputs are intended for producing final goods for export. Under this system, the beneficiary of IPR has to submit to the Customs authorities at the time of import a letter of guarantee or pledge of money covering the total of all duties and VAT that would otherwise be owed. Turkish IPR Regulation and Customs Law and English translations are provided in Attachment H-4.1

Çolakoglu imported billets from various countries with a commitment to export the finished product that is manufactured by using the imported billets. Upon import, Çolakoglu is exempt from paying import duties, including customs duty, charges and VAT on the condition that the finished products will be exported. Upon completion of

production and exportation, Çolakoglu must submit a completion report demonstrating the export of finished goods. According to the IPR, failure to demonstrate that the finished goods are exported would result in retroactive collection of all the import duties and value added tax.

To calculate the per unit duty exemption, Colakoglu took the following steps:

- Çolakoglu is required to use the Ministry of Economy's online IPR system to apply for the opening and closing of a certificate under the IPR ("the IPC"). The IPCs obtained during the investigation period is used to identify the relevant imports and exports for the calculation of duty drawback.
- After identifying the IPCs; Çolakoglu extracted all imports and exports made under each certificate from the IPR's online system.
- After compiling the import data; Çolakoglu prepared the "duty drawback calculation" worksheet provided in Attachment E-4.2
- Çolakoglu then calculated the reported per unit amount of duty drawback by dividing the total amount of import duties and charges corresponding to the imports made under the identified IPCs by the total of exports made as a commitment against the imports to close the IPCs. Note that Çolakoglu has included all imports and exports under the IPC.

Please see Attachment E-4.2 [CONFIDENTIAL ATTACHMENT]. The relevant IPC application and closing documents are provided in Attachments H-4.18 and H-4.19.

[CONFIDENTIAL TEXT DELETED - details of the confidential attachment].

Colakoglu submits that the import duty exemptions on raw material inputs enjoyed by Colakoglu's Australian sales of the goods should be taken into account as a downward adjustment to the normal value. These duty exemptions are reported in Attachment B-2.

- 3. Are there any other direct selling expenses incurred by your company in relation to domestic sales of like goods?
  - These direct selling expenses must be included in the reconciliation of direct selling expenses in B-5.

In addition to freight, credit, packing, Çolakoglu reported billing corrections (for only two sales) in the domestic market in Other Adjustments field. Please see Attachment E-4.3 [CONFIDENTIAL ATTACHMENT] for the calculation of the per unit billing adjustments.

- 4. Are there any other direct selling expenses incurred by your company in relation to export sales of the goods to Australia?
  - These direct selling expenses must be included in the reconciliation of direct selling expenses in B-5.

In addition to packing, ocean freight, inland freight, duty drawback Çolakoglu reported the following expenses:

- Exporters Association fees: All exporters in Turkey must be registered to an
  exporters association by law who provide trainings and administrative services
  such as the administration of inward processing system. The fee is charged to
  cover their expenses. A fee is charged for the exportation corresponding to
  [CONFIDENTIAL TEXT DELETED percentage] of FOB value.
- Independent survey: For surveying loading, quality, Çolakoglu hires independent survey companies. The charges are fixed [CONFIDENTIAL TEXT DELETED – number] US\$/ton

## E-5 Other adjustment claims

- Are there any other adjustments required to ensure a fair comparison between the export price and the normal value (based on domestic sales, costs and/or third country sales)? If yes, provide details.
  - An adjustment will only be made where there is evidence that the difference affects price comparability.
  - Refer to Chapter 14 of the Dumping and Subsidy Manual for more information.

Given that domestic sales of the goods are generally made from inventory, as compared to Australian sales, which are made to order, Çolakoglu considers that an inventory carrying cost based adjustment is warranted for the longer period of inventory carrying related to the domestic sales. Please see Attachment E-5. [CONFIDENTIAL ATTACHMENT]. The adjustment value is also reported in Attachment D-2.

## SECTION F THIRD COUNTRY SALES

## F-1 Third country sales process

1. Are your sales processes to any third country (i.e. exports to countries other than Australia) different to the sales process described in B-1.1? If yes, provide details of the differences.

Çolakoglu's sales process to third counties are the same except sales to [CONFIDENTIAL TEXT DELETED – destination] which are made through [CONFIDENTIAL TEXT DELETED – affiliated company overseas].

Are there any third country customers related to your company? If yes, please provide a list of each related customer and provide details on how the selling price is set.

As noted above, [CONFIDENTIAL TEXT DELETED – third country sales practice and pricing policy].

- 3. The invoice date will normally be taken to be the date of sale. If you are making a claim that a different date should be taken as the date of sale:
  - (a) What date are you claiming as the date of sale?
  - (b) Why does this date best reflects the material terms of sale?

Çolakoglu's date of sale for third countries can be taken as the invoice date.

## F-2 Third country sales listing

- 1. Complete the worksheet named "F-2 Third country sales"
  - This worksheet lists all export sales, summarised by country and customer, to third countries
    of like goods invoiced within the period.
  - If you have claimed in F-1.3 that the date of sale is one other than the invoice date, then add sales with your claimed date of sale.
  - You must provide this list in electronic format using the template provided.
  - If you have used formulas to complete this worksheet, these formulas must be retained.
- 2. Provide a table listing the source of the data for each column in the export sales listing (F-2.1).

Please see Attachment F-2 [CONFIDENTIAL ATTACHMENT]. As with domestic and export sales, this list is also obtained from SAP report [CONFIDENTIAL TEXT DELETED – code] (Sales Detail Report)

### F-3 Differences in sales to third countries

1. Are there any differences in sales to third countries which may affect their comparison to export sales to Australia? If yes, provide details.

The primary difference in sales to third countries are that [CONFIDENTIAL TEXT DELETED – differences]

## SECTION G COST TO MAKE AND SELL

## G-1. Production process

1. Describe the production process for the goods and provide a flowchart of the process. Include details of all products manufactured using the same production facilities as those used for the goods. Also specify all scrap or by-products that result from producing the goods.

In the production process, scrap is first melted in the electric arc furnace in the meltshop. The molten metal is then adjusted in a ladle furnace and cast into billets. Billets leaving the casting stage are transferred either to one of the rolling mills or sold to third parties.

The rolling mill receives most of their billets directly from the melt-shop (Çolakoglu also purchases some billets for use in the production of rebar). These are first reheated to 1200 degrees C in the re-heating stage. The hot billets are then forced continuously through successive stages of shaped rollers with decreasing clearances, forming a thick continuous rod of steel. After the final diameter is reached the rebar is cut to various lengths. These products are transported laterally by rollers to a packing area where they are bundled and stored or held for shipment.

A production process flowchart is provided in Attachment G-1.1 [CONFIDENTIAL ATTACHMENT].

2. Are any of your suppliers related to your company (regardless of whether it is relevant to the manufacture of the goods)? If yes, please provide details including the product or services supplied by the related company.

Colakoglu does not purchase any raw materials from related companies.

## G-2. Cost accounting practices

1. Is your company's cost accounting system based on actual or standard costs (budgeted)?

Çolakoglu's cost accounting system is based on actual costs.

2. If you company uses standard costs:

Not applicable. Colakoglu's cost accounting system is based on actual costs.

- (a) Were standard costs used as the basis of actual costs in your responses G-3.1 and G-5.1?
- (b) Have all variances (i.e. differences between standard and actual production costs) been allocated to the goods?
- (c) How were those variances allocated?
- (d) Provide details of any significant or unusual cost variances that occurred during the period.
- 3. Do you have different cost centres in your company's cost accounting system? If yes, list the cost centres, provide a description of each cost centre and the allocation methodology used in your accounting system.

Please see Attachment G-2.3 for cost centres and the allocation basis [CONFIDENTIAL

#### ATTACHMENT].

4. To what level of product specificity (models, grades etc.) does your company's cost accounting system normally record production costs?

Colakoglu calculates order specific costs that capture all product specifications.

5. Are there any costs for management accounting purposes valued differently to financial accounting purposes? If yes, provide details of the differences.

No.

- 6. Has your company engaged in any start-up operations in relation to the goods? If yes:
  - (a) Describe in detail the start-up operation giving dates (actual or projected) of each stage of the start-up operation.
  - (b) State the total cost of the start-up operation and the way that your company has treated the costs of the start-up operation it its accounting records.

Çolakoglu did not engage in any start-up operations in relation to the goods during the POI.

7. What is the method of valuation for raw material, work-in-process, and finished goods inventories (e.g. last in first out –LIFO, first in first out-FIFO, weighted average)?

Raw materials are entered into inventory at purchase prices actually paid, including shipment and insurance costs if purchased on a delivered basis and other additional costs (e.g. stevedoring costs). The costs of scrap consumed from inventory are calculated [CONFIDENTIAL TEXT DELTED – cost accounting method]. In the statutory books, finished goods inventory is valued at the costs coming from the cost accounting system on an order basis.

8. What are the valuation methods for damaged or sub-standard goods generated at the various stages of production?

Costs are assigned to sub-standard goods the same way as standard rebar based on actual consumption of raw material, labour and overhead.

9. What are the valuation methods for scrap, by products, or joint products?

Scrap is re-used in the production process and treated as a raw material offset. Offset for scrap recovery is valued based on [CONFIDENTIAL TEXT DELTED – cost accounting method].

10. Are any management fees/corporate allocations charged to your company by your parent or related company? If yes, provide details.

Not applicable. There are no management fees/corporate allocations charged to Colakoglu

## G-3 Cost to make on domestic market

- 1. Complete the worksheet named "G-3 Domestic CTM".
  - This worksheet lists the quarterly cost to make the domestic models of like goods by MCC manufactured within the period, even if they are models not exported to Australia.

- The costs must be based on actual cost of production (i.e. not standard costs or cost of goods sold) for each MCC.
- If any imputation tax (e.g. value-added tax) is payable on the purchase of goods or services
  to manufacture like goods, report the costs excluding the imputation tax. All other taxes
  payable (e.g. import duty) must be included as 'other costs' if not already included, for
  example, under material costs.
- You must provide this list in electronic format using the template provided.
- If you have used formulas to complete this worksheet, these formulas must be retained.
- If you have claimed in D-1.7 that the date of sale is one other than the invoice date, then provide the cost for the quarters that all domestic sales are made within your claimed date of sale, even if doing so means that such cost data predates the commencement of the period.

Requested cost to make and sell information is provided in Attachment G-3 [CONFIDENTIAL ATTACHMENT]. As requested, the information is provided based on cost of production of all models and reported on a quarterly basis. All costs are net of VAT.

Note that, the reported production costs represent the production of that model for all markets, as it is not possible to determine the market on the production side.

2. Provide a table listing the source of the data for each column of the "Domestic CTM" listing (G-3.1).

All of the information in Domestic CTM is originating in SAP report listing costs called "[CONFIDENTIAL TEXT DELTED – code]"

## G-4 Selling, General & Administration expenses

- 1. Complete the worksheet named "G-4.1 SG&A listing".
  - This worksheet lists all selling, general and administration expenses by account code for the most recent accounting period and the period.
  - You must provide this list in electronic format using the template provided.
  - If you have used formulas to complete this worksheet, these formulas must be retained.
- 2. Complete the worksheet named "G-4.2 Domestic SG&A calculation".
  - This worksheet calculates the unit domestic SG&A for each MCC.
  - You must provide this list in electronic format using the template provided.
  - Please use the formulas provided.

Please see Attachment G-4. Çolakoglu separately identified direct expenses (such as freight) and indirect expenses. The unit domestic SG&A is calculated by dividing total indirect expenses by the sales revenue. Çolakoglu included the following lines from its income statement:

- F-3-Interest Income
- F-7-Foreign Exchange Gains
- G-4-Foreign Exchange Losses (-)
- E-2-Selling & Marketing Expenses (-)
- E-3-General Administrative Expenses (-)
- H-Financial Expenses

Direct expenses have been separately reported in Attachment D-2.

## G-5 Cost to make the goods exported to Australia

- 1. Complete the worksheet named "Australian CTM".
  - This worksheet lists the quarterly cost to make the Australian models of the goods under consideration by MCC manufactured within the period.
  - The costs must be based on actual cost of production (i.e. not standard costs or cost of goods sold) for each MCC.
  - If any imputation tax (e.g. value-added tax) is payable on the purchase of goods or services
    to manufacture the goods, report the costs excluding the imputation tax. All other taxes
    payable (e.g. import duty) must be included as 'other costs' if not already included, for
    example, under material costs.
  - You must provide this list in electronic format using the template provided.
  - If you have used formulas to complete this worksheet, these formulas must be retained.
  - If you have claimed in B-1.8 that the date of sale is one other than the invoice date, then
    provide the cost for the quarters that all Australian sales are made within your claimed date
    of sale, even if doing so means that such cost data predates the commencement of the
    period.

Please see Attachment G-5, prepared on the same basis as Attachment G-3.

2. Provide a table listing the source of the data for each column of the "Australian CTM" listing (G-5.1).

All of the information in Australia CTM is originating in SAP report listing costs called ""[CONFIDENTIAL TEXT DELTED – code]"

## G-6 Cost allocation methodology

- 1. What is the allocation methodology used to complete in G-3 domestic CTM and G-5 Australian CTM for:
  - (a) Raw materials
  - (b) Labour
  - (c) Manufacturing overheads

Çolakoglu directly obtained the reported costs from its cost accounting system. There are three stages in Çolakoglu's cost accounting system:

- 1. Liquid steel
- 2. Semi-finished: Billet
- 3. Finished: Rebar.

Actual processing costs incurred at each stage are allocated to the products on a daily basis. Scrap mixes are defined for the various heat qualities. The consumption of ferroalloys and other grade-related materials that are added to each heat in the ladle are measured and costed accordingly on an actual basis. Melt shop labour and overhead expenses incurred each month are allocated [CONFIDENTIAL TEXT DELTED – cost accounting policy].

Melt shop costs transferred to rolling mill for the billet that are processed are included

in the costs of rebar. The particular grade/type of billet and the weight consumed is tracked as well as the output weight. The actual cost of billet consumed is allocated based on the [CONFIDENTIAL TEXT DELTED – cost accounting policy]. Actual labour and overhead expenses incurred for the rolling mill are allocated [CONFIDENTIAL TEXT DELTED – cost accounting policy]

The cost accounting system tracks the actual consumption of inputs, including consumption of purchased billet and own produced billet to each specific production order and calculates costs on that basis

2. Select the domestic model (export model if you have no domestic production of like goods) with the largest production volume over the period and provide worksheets demonstrating the allocation methodology described in G-6.1 from your normal cost accounting system to the cost for that model reported in G-3.1.

Please see Attachment G-6.2 [CONFIDENTIAL ATTACHMENT].

## G-7 Major raw material costs

1. What are the major raw materials used in the manufacture of the goods?

Major raw materials used in the manufacture of rebar is steel scrap. As noted above, scrap is melted and transformed into billets, which is the semi-finished goods used in the production of rebar.

- 2. Are any raw materials sourced as part of an integrated production process or from a subsidiary company which your company exercise control? If yes, complete the worksheet named "G-7.2 Raw material CTM" for these raw materials.
  - This worksheet lists the quarterly cost to make the raw material manufactured within the period.
  - The costs must be based on actual cost of production (i.e. not standard costs or cost of goods sold).
  - If any imputation tax (e.g. value-added tax) is payable on the purchase of goods or services to manufacture the raw material, report the costs excluding the imputation tax. All other taxes payable (e.g. import duty) must be included as 'other costs' if not already included, for example, under material costs.
  - You must provide this list in electronic format using the template provided.
  - If you have used formulas to complete this worksheet, these formulas must be retained.

As noted above, Çolakoglu produces its own billets. In accordance with the Commission's instructions, Çolakoglu provides the cost to make billets in Attachment G-7.2 [CONFIDENTIAL ATTACHMENT]

3. Using the domestic cost data in G-3, calculate the weighted average percentage of each raw material cost (listed in G-7.1) as a proportion of total cost to make.

As noted above, the only major raw material is steel billet (or the steel scrap Çolakoglu used to make the billet).

- 4. For each raw material identified in G-7.3 which individually account for 10% or more of the total cost to make, complete the worksheet named "G-7.4 Raw material purchases"
  - This worksheet lists all raw material purchases (i.e. transaction by transaction) purchased by your company within the period.
  - You must provide this list in electronic format using the template provided.

If you have used formulas to complete this worksheet, these formulas must be retained.

Çolakoglu provides purchases of imported scrap and billets in Attachment G-7.4 Raw material purchases [CONFIDENTIAL ATTACHMENT].

5. Provide a table listing the source of the data for each column of the "Raw material purchases" listing (G-7.4).

The information is extracted directly from Colakoglu's SAP system.

- 6. For each raw material:
  - (a) Select the two largest invoices by value and provide the commercial invoice and proof of payment.

Çolakoglu provides requested invoices and proof of payment in Attachment G-7.6 (a) Raw material purchases [CONFIDENTIAL ATTACHMENT]. [CONFIDENTIAL TEXT DELTED – scrap purchase practices].

(b) Reconcile the total value listed of the purchases in G-7.4 to relevant purchase ledgers or trial balances in your accounting system. Provide copies of all documents used to demonstrate the reconciliation.

Please see Attachment G-7.6(b) [CONFIDENTIAL ATTACHMENT].

7. Are any of the suppliers listed in G-7.4 related to your company? If yes, please provide details on how the price is set.

None of the suppliers are related to Çolakoglu.

## G-8 Reconciliation of cost to make to audited financial statements

- 1. Please complete the worksheet named "Upwards costs".
  - You must provide this list in electronic format using the template provided.
  - Please use the currency that your accounts are kept in.
  - If you have used formulas to complete this worksheet, these formulas must be retained.

Requested reconciliation is provided in Attachment G-8.1. [CONFIDENTIAL ATTACHMENT].

Because the subject products costs are reported in a unique GL account GL Acct [CONFIDENTIAL TEXT DELETED – account code], in the upwards costs worksheet, Çolakoglu presented rebar related cost figures only.

[CONFIDENTIAL TEXT DELETED – reconciliation process]

2. Please provide any documents, other than those in A-5, G-3 and G-5, required to complete the "Upwards costs" worksheet.

The figures are coming from the trial balance to a large extent. As noted above, supporting documents and worksheets are included in the file G-8.1 - Upwards Costs [CONFIDENTIAL ATTACHMENT]

3. For any amount that is hard coded (i.e. not a formula), please cross-reference by providing:

- the name of the source document, including the relevant page number, in column F of the worksheet; <u>and</u>
- highlight or annotate the amount shown in the source document.

As noted above, the figures are coming from the trial balance to a large extent. As noted above, supporting documents and worksheets are included in the file G-8.1 - Upwards Costs.

## SECTION H COUNTERVAILING

## Introduction

In the application, the applicant alleged the existence of a total of 32 programs, based on the findings of previous investigations undertaken by the US Department of Commerce (USDOC). The Commission also held a consultation with the Government of Turkey in relation to the application prior to this investigation being initiated. As part of the consultation process, the Government of Turkey provided a submission regarding the operation of the subsidies alleged by the applicant. The submission forms Non-Confidential Attachment 6 to *Anti-Dumping Consideration Report No.495*.

The Commission notes that there was minimal detail in the application for some of the 32 programs. In the limited time available to examine the application, the Commission had regard to the information provided by the Government of Turkey in its consultation submission and the Government of Turkey's New and Full Notification Pursuant to Article XVI:1 of the GATT 1994 and Article 25 of the Agreement on Subsidies and Countervailing Measures.

The Commission observed that there appeared to be some duplication in the programs listed in the application.

Based on available information, the Commission has limited this questionnaire to investigating the following. If further information comes to hand during the course of the investigation, the Commission may choose to investigate further programs. In this event, the Commission may issue a supplementary questionnaire.

| Program<br>Category       | No. | Program name  |
|---------------------------|-----|---|
| Provision of              | 1   | Natural Gas for Less than Adequate Remuneration   |
| goods                     | 2   | Land for Less than Adequate Remuneration  |
|                           | 3   | Electricity for Less than Adequate Remuneration   |
|                           | 4   | Provision of Lignite for Less than Adequate Remuneration  |
|                           |     |   |
| Preferential tax policies | 5   | Deductions from Taxable Income for Export Revenue   |
| tax policies              | 6   | R&D Income Tax Deduction  |
|                           | 7   | Withholding of Income Tax on Wages and Salaries   |
|                           | 8   | Exemption from property tax   |
|                           | 9   | Exemption from Income Tax on Wages Paid to Workers  |
|                           |     |   |
| Tariff & VAT Exemptions   | 10  | Import duty rebates/drawbacks under Article 22 of Turkey's Domestic Processing Regime (RDP) Resolution 2005/839 (RDP duty drawback program) |
| Lxemptions                | 11  | Investment Encouragement Program VAT and Import Duty Exemptions   |
|                           | 12  | Inward Processing Certificate Exemption Program   |

| Program<br>Category    | No. | Program name  |
|------------------------|-----|---|
|                        |     |   |
| Preferential Loans /   | 13  | Pre-shipment Turkish Lira Export Credits                    |
| Financial<br>Arrangeme | 14  | Pre-shipment Foreign Currency Export Credits                |
| nts                    | 15  | Pre-export Credits  |
|                        | 16  | Short-term Export Credit Discounts                          |
|                        | 17  | Rediscount Program  |
|                        | 18  | Foreign Trade Company Export Loans                          |
|                        | 19  | Investments Provided under Turkish Law No. 5746             |
|                        | 20  | Turkish Development Bank Loans                              |
|                        |     |   |
| Direct<br>Funds        | 21  | Industrial R&D Projects Grant Program                       |
|                        |     |   |
| Other                  | 22  | Assistance to Offset Costs Related to AD/CVD Investigations |
|                        | 23  | Social Security Premium Support (Employer's Share)          |
|                        | 24  | Social Security Premium Support (Employee's Share)          |
|                        | 25  | Investment Incentive Program                                |

Table H-1: Subsidy programs

## H-1 General

- 1. Complete the worksheet named "H-1 Company turnover":
  - This worksheet is a table of the total company revenue over the period and split into:
    - o Total revenue for Australian sales, domestic sales and third country sales
    - Revenue of the goods for Australian sales, domestic sales and third country sales
  - You must provide this table in electronic format using the template provided.
  - If you have used formulas to complete this worksheet, these formulas must be retained.

Please see Attachment H-1. [CONFIDENTIAL ATTACHMENT]

## H-2 Provision of goods (Programs 1 to 4)

**Specific Questions** 

1. Does your business or any related business generate electricity from its own power plant facilities?

Çolakoglu has two power plants that generate electricity located in Dilovasi/Kocaeli. One of the plants, which has a combined capacity of [CONFIDENTIAL TEXT DELETED number] megawatts, uses steam coal to generate electricity. In the other, which has a combined capacity of [CONFIDENTIAL TEXT DELETED - number] megawatts, uses natural gas to generate electricity. [CONFIDENTIAL TEXT DELETED - operation of power plants]

2. If your business purchased natural gas in relation to the production of rebar, whether this be for power generation or other processes relating to the production of rebar, was the gas utility company a wholly state owned enterprise (SOE) or a state invested enterprise (SIE)? Please provide the names of the companies that supplied your company natural gas during the investigation period indicating the nature of the supplier, e.g. SOE, SIE or private.

During the period, Çolakoglu did not purchase natural gas from any SOE or SIE. [CONFIDENTIAL TEXT DELETED – details of natural gas purchases]

3. Please provide copies of any relevant contracts or purchase agreements relating to your suppliers of natural gas listed in your response to H-2.2.

**CONFIDENTIAL TEXT DELETED - Suppliers**] in Attachment H-2-3 [CONFIDENTIAL ATTACHMENT].

4. Provide a summary of all payments made for natural gas during the investigation period in the attached spreadsheet labelled "H-2.4 Natural Gas" and provide copies of invoices and evidence of payment.

Çolakoglu provides a summary of all payments made to [CONFIDENTIAL TEXT DELETED - suppliers] during the period as well as copies of invoices and evidence of payments in Attachment H-2-4 [CONFIDENTIAL ATTACHMENT].

5. Does your business or related business lease or purchase land use rights in relation to land from a SOE or SIE? If so provide a copy of the agreement(s).

Çolakoglu rented land from Treasury for building its port and pier. The rent is based on the market value.

6. Does your business or related business purchase electricity for use in the production of rebar? If not, what alternative power source is used in your production of rebar?

Electricity is purchased and generated for the production of rebar

 Provide a list, including a contact name and address, of all your suppliers of electricity, including those purchased through related businesses. Indicate whether the supplier is a SOE, a SIE or private and provide evidence supporting this.

Please see Attachment H-2.7 for a list of electricity suppliers. [CONFIDENTIAL ATTACHMENT]

Çolakoglu provides web-page addresses of its suppliers and relevant screenshots of these web-pages supporting the fact that all of its electricity suppliers are private companies.

8. Provide a summary of all payments and sales your company made for electricity during the investigation period in the attached spreadsheet labelled "H-2.8 Electricity" and provide copies of invoices and evidence of payment.

Çolakoglu provides a summary of all payments made during the IP as well as copies of invoices and evidence of payments in Attachment H-2-8 [CONFIDENTIAL ATTACHMENT].

9. If your company generates surplus electricity, outline how this surplus energy is used. During the investigation period, was any surplus electricity sold to a SOE or SIE? If so, provide details.

Çolakoglu did not sell electricity to SOE or SIE during the period. Çolakoglu sold surplus electricity on the electricity market and to the wholesale companies during the IP. In Turkey, electricity market is operated by Enerji Piyasaları işletme A.Ş. ("EPIAS-Energy Market Operating Corporation"). EPIAS (previously TEIAS) is a joint stock company and makes financial settlement for transactions made in electricity markets and manages payment, invoicing and other financial activities. It operates the Market Management System, an online software system where market participants (sellers and buyers) place offers and bids.

10. Does your business operate any form of power generation which requires lignite (also known as "brown coal")? If yes, outline how your power generation relates to the production of the rebar?

Çolakoglu does not generate power from lignite coal. As noted in response to question H-2-1 Colakoglu uses steam coal to generate electricity in the coal fired power plant.

11. Provide an itemised list of lignite purchases in the worksheet named "H-2.11 Lignite".

Not applicable, in that Colakoglu did not purchase lignite coal during the period.

#### General Questions (answer in relation to each program)

- 12. Did your business or any related business receive any benefit under the above programs during the period? If yes, provide details.
- 13. Did your business receive any reduction/reduced price for the purchase of these goods/services during the investigation period? If so, describe the eligibility criteria that your business had to meet in order to qualify for any reduction in the price paid for the goods/services.
- 14. Describe the application and approval procedures for obtaining a benefit under the program.
- 15. Provide copies of all contractual agreements that detail the obligations of the SOE or SIE and your business with reference to the granting and receipt of the assistance/benefits.

Colakoglu did not receive any benefit under programs 1 to 4. Specifically:

- Program 1: as reported in Attachment H-2-4, Çolakoglu did not purchase natural gas from any government entity during the period.
- Program 2: Çolakoglu did not lease or purchase any land from any government entity during the period at reduced rate.
- Program 3: Çolakoglu did not purchase electricity from any government entity during the IP.
- Program 4: Çolakoglu did not purchase lignite coal.

## H-3 Preferential tax policies (Programs 5 to 9)

1. Did your business or any related business receive <u>any benefit</u> under the above tax programs during the investigation period **1 October 2017 to 30 September 2018**?

During the period, Çolakoglu only received benefit under Program 8– Exemption From Property Tax.

- 2. Complete the worksheet named "H-3.2 Income Tax":
  - This worksheet is a table of your company's income tax liability over the last three income tax years.
  - You must provide this table in electronic format using the template provided.
  - If you have used formulas to complete this worksheet, these formulas must be retained.

### See Attachment H-3-2 Income Tax [CONFIDENTIAL ATTACHMENT]

3. Provide a copy, bearing the official stamp of the appropriate level of the government, of all corporate income tax acknowledgement form(s) and the income tax return(s) that your company filed for the last **THREE** completed income tax years. If the documents are not in English, please provide a translation of the documents or annotate documents where appropriate.

**Note:** If your company did not file an income tax return in the last three financial years, provide an explanation stating the reasons why you were exempt from filing such a return and the applicable section[s] of the relevant law under which you were exempt from doing so.

See Attachment H-3-3 for Colakoglu's corporate tax returns [CONFIDENTIAL ATTACHMENT]

4. Please provide copies of any tax computations or other similar documents which support the completion of your company's income tax returns for each tax year referred to in H-3.3. If the documents are not in English, please provide a translation of the documents or annotate documents where appropriate.

See Attachment H-3-3 for Colakoglu's corporate tax returns

5. Provide proof of your company's tax payments to your tax authority over the last three income tax years, including any progress payments made and related forms submitted to reconcile the tax returns referred to in H-3.3.

See Attachment H-3-3 for Colakoglu's corporate tax returns which include tax accrual slips.

6. What is the general tax rate for enterprises in Turkey (also referred to as the company or corporate tax rate) during the previous three financial years?

The corporate tax rate was 20 percent during the previous three financial years in Turkey.

7. In relation to the programs 5-9, outline:

As noted above, Çolakoglu only received benefit under Program 8. Accordingly, Colakoglu provides responses for the below questions in relation to Program 8.

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<sup>&</sup>lt;sup>3</sup> Refer to the Glossary of Terms for a definition of benefit in this context.

a. In which tax year was the tax paid or payable, less than the general tax rate for that particular year?

According to Articles 4, clause (m) of Property Tax Law No. 1319, property tax is exempted for buildings located in organized industry zones, free zones, industrial zones and industrial sites as of June 18, 2017. Since Çolakoglu has a building in Dilovası Organized Industrial Zone, this building was exempted from property tax as of June 2017.

In Turkey, property tax is paid in two instalments (first instalment in first half of the year, second instalment in the second half of the year). Since the exemption has entered into force in June 2017, Çolakoglu was exempted from the second instalment of the 2017 property tax.

b. What is the name of the authority granting your company the reduced tax rate?

The property tax exemption program is administered by Turkish Ministry of Finance.

c. Outline the eligibility criteria your business had to satisfy to benefit from the reduced tax rate?

# Pease refer to our response at H-3.7.a above.

- d. State whether your eligibility for the program was conditional on one or more of the following criteria:
  - whether or not your business exports or has increased its exports;
  - the use of domestic rather than imported inputs;
  - the industry to which your business belongs; or
  - the region in which your business is located.

As explained above the property tax exemption is provided based on location of the building owned by Çolakoglu.

 e. Provide details of the application process, if applicable, provide a copy of the blank application from. If the documents are not in English, please provide a translation of the documents.

There is no application or approval process. Pursuant to the relevant provision of the Property Tax Law, property tax for buildings located in the eligible area is automatically exempt.

f. Provide a copy of your company's completed application form, including all attachments to the application form. If the documents are not in English, please provide a translation of the documents.

# See response to question H-3-7-e.

g. Provide a copy of any confirmation or other correspondence from the authority approving your company for the reduction in tax rate. If the documents are not in English, please provide a translation of the documents.

# See response to question H-3-7-e.

 Outline the fees charged to, or expenses incurred by your business for purposes of receiving the program.

# There is no such charges or expenses incurred.

 If the benefit was provided in relation to a specific activity or project of your entity, please identify the activity and provide supporting documentation.

# Not applicable, in that the benefit is provided in relation to location of the building.

j. Indicate where benefits under this program can be found in your accounting system (i.e. specify the ledgers or journals) and financial statements

As mentioned above, Çolakoglu is eligible for property tax exemption in relation to the second instalment of 2017 property tax and the first instalment of 2018 property tax for the period. Since the nature of the program is an exemption, the exemption amount is not recorded in the accounting system. However, since Çolakoglu paid the first instalment of 2017 property tax, this can be used as reference for the value of the exemption for the second instalment of 2018, which was Turkish Lira [CONFIDENTIAL TEXT DELETED - number].

k. To your knowledge, does the program still operate or has it been terminated?

# Çolakoglu understands the Program 8 is still operational.

I. If the program has been terminated, please provide details (when, why). When is the last date that your business could apply for or claim benefits under the program? When is the last date that your business could receive benefits under the program?

# Colakoglu understands the Program 8 is still operational.

8. If your business currently pays income tax at a rate less than the general tax rate referred to in the previous questions, or paid at a rate less than that during the investigation period, please indicate whether the reduced rate of tax payable relates to any of the tax programs identified above.

As explained above, Çolakoglu enjoys tax exemption for certain buildings located in the eligible industrial zone under Program 8.

9. <u>IF</u> the reduced rate of tax payable relates to programs which have <u>NOT</u> been identified at programs 5-9 please refer to these below.

# Not applicable to Colakoglu.

- m. What tax rate did your company pay?
- n. In which tax year was the tax paid or payable, less than the general tax rate for that particular year?
- o. What is the name of the program?
- p. What is the name of the authority granting your company the reduced tax rate?
- q. Outline the eligibility criteria your business had to satisfy to benefit from the reduced tax rate?
- r. State whether your eligibility for the program was conditional on one or more of the following criteria:
  - whether or not your business exports or has increased its exports;
  - the use of domestic rather than imported inputs;
  - the industry to which your business belongs; or

- the region in which your business is located.
- s. Provide details of the application process, if applicable, provide a copy of the blank application from. If the documents are not in English, please provide a translation of the documents.
- t. Provide a copy of your company's completed application from, including all attachments to the application form. If the documents are not in English, please provide a translation of the documents.
- u. Provide a copy of any confirmation or other correspondence from the authority approving your company for the reduction in tax rate. If the documents are not in English, please provide a translation of the documents.
- v. Outline the fees charged to, or expenses incurred by your business for purposes of receiving the program.
- w. If the benefit was provided in relation to a specific activity or project of your entity, please identify the activity and provide supporting documentation.
- x. Indicate where benefits under this program can be found in your accounting system (i.e. specify the ledgers or journals) and financial statements
- y. To your knowledge, does the program still operate or has it been terminated?
- z. If the program has been terminated, please provide details (when, why). When is the last date that your business could apply for or claim benefits under the program? When is the last date that your business could receive benefits under the program?

# H-4 Tariff & VAT Exemptions (Programs 10 to 12)

It is the Commission's understanding that certain enterprises in Turkey may be eligible for exemption from the payment of import duties and VAT in certain circumstances.

If your business or a related business received benefits under any such program during the period 1 October 2017 to 30 September 2018, please answer the following questions.

Among the listed programs 10 to 12; Çolakoglu used Program 12, Inward Processing Regime Program. Çolakoglu also notes that "Inward Processing Regime" is stipulated by Resolution Numbered 2005/8391; thus Program 10 and 12 are the same. Therefore, below questions are responded for Program 10 and 12.

During the period, Çolakoglu did not use Program 11-Investment Encouragement Program.

 Provide complete details involving the exemption of import duties or VAT received for any purchases.

Çolakoglu participates to Inward Processing Regime ("IPR") under Turkish law. IPR provides tax exemptions to the Turkish manufacturer/exporters by permitting manufacturer/exporters to import raw materials free of import duties and value added tax ("VAT") if such inputs are intended for producing final goods for export. Under this system, the beneficiary of IPR has to submit to the Customs Authorities at the time of import a letter of guarantee or pledge of money covering the total of all duties and VAT that would otherwise be owed. The Turkish IPR Regulation and an English translation are provided in Attachment H-4.1.

Çolakoglu imports raw materials with a commitment to export the finished product that is manufactured by using the imported raw materials under D-1 certificates. It does not participate in D-3 certificates which relate to domestic market sales.

Upon import, Çolakoglu is exempted from paying import duties, charges and VAT on the condition that the finished products will be exported. The Government has an online system (e-portal) in place to confirm which inputs, and in what amounts, are

consumed in the production of the exported product as explained below.

In order to apply for an IPC, Çolakoglu must first enter the products and quantities it intends to export, and then the product and quantity of imports required to produce the stated exports. The said online system never permits Çolakoglu to exceed the quantity of imports based on certain pre-set limits (waste/yield ratios) set by the Ministry of Economy within the system. If the import quantity exceeds the pre-set limit, the system automatically rejects the import quantity entered, with a notation in red indicating by how much the import figures exceed the pre-set limits. Thus, based on the objective pre-set limits an IPC with a specific number is issued by the Ministry of Economy upon Colakoglu's application.

Once the issuance of the IPC Çolakoglu is allowed to begin to import the required raw materials. When the imported material arrives, Turkish Customs enters the import information, including the IPC number indicated on the Customs Entry Document, into its online system. Upon exportation, Turkish Customs enters the relevant information, including the IPC number indicated on the Customs Exit Declaration, into the online system. The Customs and the Ministry of Economy systems are linked, and all of the imports and exports under a given IPC can be viewed in the IPR e-portal; thus, the Government can track all of the imports and exports made under a particular IPC.

Upon completion of production and exportation, Çolakoglu submits realized import and export lists to the Ministry of Economy demonstrating the export of finished goods linked to the imported inputs. Accordingly, the Turkish Government – Ministry of Economy – closed off these certificates after confirming Çolakoglu fully realized its export commitments set out in the IPCs.

Çolakoglu notes that Turkey's Inward Processing Regime is compliance with World Trade Organization Subsidies and Countervailing Measures Agreement provisions which renders this program as non-countervailable.

2. Provide information relating to your imports of plant, equipment and materials by completing the worksheet "<u>H-4 Imported Goods</u>". Has your company received exemption from payment, or refunds of import duty, for imported material inputs including technologies and equipment at any time that were used in the production of the goods during the investigation period? Please ensure this is clearly identified in the worksheet.

Çolakoglu reports the raw materials (i.e. scrap) imported under IPR to be used in the production of rebar in Attachment H-4.2. [CONFIDENTIAL ATTACHMENT] To report the importation under IPR during the IP - without paying customs duties and other charges - Çolakoglu extracted electronic realized import lists of each IPC from the online e-portal.

After processing the raw material secondary/auxiliary processed products like slag are often produced. In such a case, these secondary products must also be either exported or the applicable customs duties and charges paid when it is sold in the domestic market pursuant to Article 20 of the IPR Regulation.

3. Describe the application and approval procedures for obtaining a benefit under these programs.

As explained above, Çolakoglu uses the online e-portal system of the Ministry of Economy which is linked to Customs to make an application. Çolakoglu enters the products and quantities it intends to export, and then the product and quantity of imports required to produce the stated exports. The online system permits Çolakoglu to import based on certain waste/yield ratios embodied in the system. Once the IPC is approved by the Ministry of Economy, Çolakoglu receives a certificate (IPC) from the Ministry.

4. Where applicable, provide copies of the application form or other documentation used to apply for these programs, all attachments and all contractual agreements entered into between your business and the government in relation to the program.

Information such as importation, exportation, status, type of the IPC is kept in the online e-portal system. The application for a certificate and tracking of imports and exports is all done on-line through the portal which is linked to the Turkish Customs authority electronic entry system. Çolakoglu provides sample screenshots from the online e-portal system in Attachment H-4.4. [CONFIDENTIAL ATTACHMENT]

Outline the fees charged to, or expenses incurred by your business for purposes of receiving these programs.

There is not fees or expenses incurred.

6. Outline the eligibility criteria your business had to meet in order to receive benefits under these programs.

Eligibility criteria during the application for an IPC and closing off the IPC is to make and meet this export commitment. Failure to meet the export commitment in an IPC, results in very significant penalties and possible criminal prosecution under Turkish law.

- 7. State whether your eligibility for these programs was conditional on one or more of the following criteria:
  - whether or not your business exports or has increased its exports:
  - the use of domestic rather than imported inputs:
  - the industry to which your business belongs; or
  - the region in which your business is located.

None of the above. Please refer to See response above regarding the IPR.

8. If the benefit was provided in relation to a specific activity or project of your entity, please identify the activity and provide supporting documentation.

Please refer to See response above regarding the requirement and eligibility of the IPR.

9. What records does your business keep regarding each of the benefits received under these programs? Provide copies of any records kept in relation to the program.

Information such as importation, exportation, status, type of the IPC is kept in the online e-portal system. The application for drawback and tracking of imports and exports is all done on-line through the portal which is linked to the Turkish Customs authority electronic entry system.

10. Indicate where benefits under these programs can be found in your accounting system (i.e., specify the ledgers or journals) and financial statements.

There is not any record in the accounting system since Çolakoglu is eligible for duty and tax exemption under the IPR and does not incur payment or liabilities unless the commitment is not met.

11. To your knowledge, do these programs still operate or have they been terminated?

Programs 10 and 12 are still operational.

12. If these programs have been terminated, please provide details (when, why). When is the last date that your business could apply for or claim benefits under the program? When is the last date that your business could receive benefits under the program?

Not applicable.

13. If any of these programs have been terminated and is being substituted for by another program, identify the program and answer all the questions in this part in relation to this program.

Not applicable.

- 14. Were the materials and/or equipment that were entitled to an exemption of import duty used in the production of the goods during the investigation period? If yes, provide the following information:
  - type of inputs;
  - cost of inputs;
  - quantity of inputs; and
  - amount of duty exempted.

Please refer to Attachment H-4.2 for the relevant information required.

15. Explain if (and how) the government determines which imported inputs are consumed by your business in the production of the subject goods and in what amounts, and the amount of duty paid or payable on the inputs (including any allowance for waste).

As explained in response to question H-4.1, above, the Turkish government has an online e-portal system in place which enables it to track importation and exportation to prevent any over-rebate or excess drawback.

- 16. Explain how the government determined the percentage rate of duty exemption.

  Please note that goods consumed in the production of exported goods (inputs) include:
  - goods incorporated into the exported goods; and
  - energy, fuel, oil and catalysts that are used or consumed in the production of the exported goods.

Import duties and value added tax ("VAT") for raw materials used in the production of exported products are fully exempt.

17. Provide a representative sample of copies of import entry documents listed in worksheet "<u>H-4 Imported Goods</u>" (for example: bill of entry, invoice from supplier, etc.) for each type of importation covering duty-exempt or VAT exempt imports and duty-paid imports use in the manufacture of the subject goods.

**Çolakoglu provides sample of copies of import entry documents in Attachment H-4.17.** [CONFIDENTIAL ATTACHMENT]

18. In addition to the import entry documents, you must also provide copies, if applicable, of any applications submitted to and/or approval document received from the government relating to the exemption from the payment of import duty on imported inputs and in relation to the amount of benefit in relation to the exportation of the subject goods.

The application for drawback and tracking of imports and exports is all done on-line through the portal which is linked to the Turkish Customs authority electronic entry system. Further, after acceptance of the application, Ministry of Economy sends a correspondence regarding the issuance the IPC. See Attachment H-4.18 for the sample copy of said correspondence. [CONFIDENTIAL ATTACHMENT]

19. Provide copies of reports and audits by the government authority responsible for administering the import duty exemption scheme with respect to the verification of the importation and use of inputs and the remittance or drawback of the related duty paid or payable.

There are no such reports. Ministry of Economy examines each IPC to see whether a company meets export commitment against the quantity of imported goods by considering the waste ratios. If the commitments are met, afterwards the Ministry sends an official correspondence for each IPC confirming the closure of the IPC. See Attachment H-4.19 for the sample copy of said correspondence. [CONFIDENTIAL ATTACHMENT]

# H-5 Preferential Loans/Financial Assistance (Programs 13 to 20)

It is our understanding that certain enterprises in Turkey benefit from low (subsidised) interest rates or credit facilities from state owned commercial banks (SOCB) and government banks.

If your business or a related business received benefits under any such program during the period **1 October 2014 to 31 September 2018**, answer the following questions.

1. Provide give a general overview of how your company secures necessary financial resources on the financial market (e.g. Loans, issuance of bonds etc.)

Çolakoglu obtained bank loans.

Provide answers to the following questions in "H-5 Preferential Loans".

Provide a list of all the loans provided to your company from banks and financial institutions which have not been fully reimbursed by the end of the investigation period.

[CONFIDENTIAL TEXT DELETD – use of loans under Programs 13 to 20]. Thus, there is no loan obtained from any state-owned commercial banks and/or government banks which has not fully reimbursed by the end of the investigation. Çolakoglu provides list of all the loans which have not been fully reimbursed by the end of the IP in Attachment H-5.2 Loans [CONFIDENTIAL ATTACHMENT]

3. Provide specific details of the loan, including the start date of the loan, the principal amount of the loan, terms and conditions of the loan, purpose of the loan, the repayment terms/frequency, repayment amount, interest rate, interest type (e.g. fixed, variable etc.), if the loan has been redrawn any time during its duration, please provide the redraw date, amount and the reason for redraw.

# Please see Attachment H-5.2 Loans

 Indicate whether each bank is Turkish or foreign-owned and give the percentage of government ownership of each bank (including ownership by entities owned or controlled by a government).

The bank referred to in Attachment H-5.2 is foreign owned.

5. In the case of each loan from government-owned or controlled bank, please explain the reason for borrowing from such a bank rather than a commercial bank. What are the differences in the terms and conditions of loans between the government and commercial banks?

Not applicable, in that Çolakoglu did not use any loan from a government-owned or controlled bank.

6. Explain how the decisions to grant the loan or its conditions are dependent on the purpose of the loan and give details on the process your company went through to apply for the loan. Please provide detail on what conditions or criteria your company needed to fulfil to be granted the loan.

Not applicable, in that the loan listed in H-5.2 is provided by a foreign bank. Please see further details at H-5.7. [CONFIDENTIAL ATTACHMENT]

7. For each of the loans listed, provide copies of signed loan agreements between the bank which provided the loan and company which was the addressee of the loan specifying the conditions of the loan such as amount, term of repayment, interest rate etc. Also provide a copy of your application for the loan.

Note: If your company has more than one loan from same bank/financial Institution which were not repaid by the end of the investigation period and the loan agreements for these loans are standardised, it is sufficient <u>at this stage</u> to provide an English translation for one of them only (e.g. If your company has multiple loans from one particular bank which only differ in amounts you only need to translate one of them into English for your questionnaire response. However it is necessary to translate <u>all credit line agreements</u> from which loans not repaid by the end of the investigation period were drawn.

# See Attachment H-5.7.

8. Please explain whether the granting of the specific loan depended on the link between the purpose of the loan and the goals specified in any government plan or development program. Provide a copy of the laws, regulations, administrative guidelines and any other acts relevant for the operation of this lending with any subsequent amendments. Also include a copy of any governmental or development plan of which the scheme represents a direct implementation.

Not applicable, please refer to the information provided above.

9. For each loan application, please explain the involvement of third parties such as government departments, local councils, party committees in the whole process since the application for the loan up to the decision whether the loan is granted or not.

Not applicable, please refer to the information provided above.

10. In the ""H-6 Preferential Loans" spreadsheet, provide the information requested on guarantees for the loans provided to your company.

Not applicable, there is no such guarantees provided.

11. Please give details of all loan applications during the investigation period which were <u>refused</u>; give the name of the bank, the amount of the loan requested and the reasons for refusal.

Not applicable, in that no application was refused during the investigation period.

12. Provide any other information you may deem necessary for the commission to make an assessment on the subsidisation of producers/exporters of the product under investigation. You may adjust the table in the "Loans" tab as necessary to include this additional information.

# H-6 Direct Transfer of Funds (Program 21)

- 1. Complete the worksheet named "H-5 Transfers"
  - This worksheet is a table of the grants received by company over the period plus the <u>TWO</u> preceding years.

- You must provide this table in electronic format using the template provided.
- If you have used formulas to complete this worksheet, these formulas must be retained.

**Collakoglu did not use the Industrial R&D Project Grant Program during the period and the two preceding years.** 

2. Provide a copy of your company's non-operating income and/or other business income ledgers, extracted directly from your accounting system, for the period covering the period plus the <a href="https://example.com/theps://ex

# See Attachment H-6.2. [CONFIDENTIAL ATTACHMENT]

3. Did your company receive any grants (or any other financial contribution) from any level of government during the investigation period and the two preceding years?

If yes:

- a. Were any of the grants related to any program listed in the table at the top of Section H above? If yes, identify the program.
- b. Were any of the grants related to programs not listed in the table at the top of Section H above? If yes, provide the names of the programs.

Çolakoglu received immaterial amount of support for participation in trade fairs in abroad in 2016 and 2018.

In 2017, Çolakoglu received immaterial amount of support about Turkish Lira [CONFIDENTIAL TEXT DELETED - number] for subscribing to trade related websites Trade Atlas and Steel Orbis respectively.

Please see Attachment H-6.3 Transfers [CONFIDENTIAL ATTACHMENT]

- 4. In relation to this program please address the following:
  - a. What is the name of the grant?
  - 1. Support for participation in trade fairs in abroad.
  - 2. Support on subscribing e-trade web-sites.
    - b. What is the name of the authority providing the grant?

Both programs are administered by the Turkish Ministry of Economy.

- c. What is the eligibility criteria to receive the grant?
- 1. Participation to fairs in abroad.
- 2. Subscribing e-trade web sites.
  - d. Is the grant directly related to the goods under consideration, export sales to Australia and/or export sales generally?

The trade fair support is received for participation in a trade fair in Italy. This is not related to export sales to Australia.

The support received for website subscription are for general e-trade websites therefore relates to Colakoglu's business generally.

e. Provide details of the application process.

For the trade fair support, Çolakoglu makes application to Exporters' Association

Union within 3 months following the end date of the fair. Çolakoglu submitted documents such as payment documents for booth construction and decoration, transportation services, travel tickets, etc. for proving its participation to the fair and some other official documents related with company like capacity report, circular of signature, etc.

For the e-trade website subscription, Çolakoglu makes application to Turkish Ministry of Economy by submitting application form through an official correspondence. Çolakoglu also provides a copy of the invoice showing the subscription fee paid for an e-trade web-site. The Ministry supports only some portion of the subscription cost.

f. Provide a copy of the blank application from. If the documents are not in English, please provide a translation of the documents.

There is no application form for the support received for trade fair participation. For the subscription support, please see Attachment H-6.4.f. [CONFIDENTIAL ATTACHMENT]

g. Provide a copy of your company's completed application from, including all attachments to the application form. If the documents are not in English, please provide a translation of the documents.

# Please see Attachments H-6.4.f and H-6.4.g. [CONFIDENTIAL ATTACHMENT]

h. Provide a copy of any confirmation or other correspondence from the authority approving the grant. If the documents are not in English, please provide a translation of the documents.

Çolakoglu provides bank statements in Attachment H-6.4.h. [CONFIDENTIAL ATTACHMENT]

i. Provide evidence of any payments received by your company in respect of receiving the grant (e.g. bank statements).

Colakoglu provides evidence of payments received in Attachment H-6.4.h.

j. Provide a copy of the accounting journal entries relating to the grant.

For both of the programs; Çolakoglu recorded the payments received under Account # [CONFIDENTIAL TEXT DELETED – account code]. Çolakoglu provides a copy of accounting journal entries in Attachment H-6.4.j. [CONFIDENTIAL ATTACHMENT]

k. Outline the fees charged to, or expenses incurred by your business for purposes of receiving the grant.

No such fees were incurred.

# H-7 Other Category Programs (Programs 22 to 24)

Indicate whether your company benefited from any of the listed programs.

Among Programs 22 – 25, Çolakoglu benefited under "Program 22 – Assistance to Offset Costs Related to AD/CVD Investigations".

Çolakoglu also benefitted from some social security premium payment support programs like "minimum wage support", "employment of handicapped staff" which are social welfare programs and found non-countervailable by US. Department of Commerce. This is further explained in H-9 below.

Accordingly, Çolakoglu provides responses for the information required for "Program 22 – Assistance to Offset Costs Related to AD/CVD Investigations".

2. If yes, indicate which goods you produced that benefited from the program (e.g. the program may have benefited all production, or only certain products that have undergone research and development).

In Turkey, exporters are obliged to be a member of an exporters' association, which are non-profit business and trade associations. Exporters' associations are organized under the jurisdiction of Turkish Exporters' Assembly (TEA) which was established by the Law No. 5910 Regarding the Establishment of Turkish Exporters' Assembly and Exporters' Associations (the Law No. 5910). TEA is a legal entity and has its own budget, which consists of contributions and dues transferred by exporters' associations to TEA. TEA facilitates the coordination of exporters' associations and carries out activities in order to solve the problems of Turkish exporters and to develop foreign trade.

Most Turkish steel producers are members of the Turkish Steel Exporter's Association (TSEA), which is, in turn, part of the Istanbul Minerals and Metal Exporters' Association. Members of TSEA, including Çolakoglu, pay nominal membership fees on a yearly basis in addition to the TSEA's charges equivalent to [CONFIDENTIAL TEXT DELETED - number]% of the FOB value of all exports on a transaction basis, collected upon export of steel products. Membership fees collected are then used for export promotion, education, information sharing, and to assist individual members who are investigated in antidumping and countervailing duty investigations by reimbursing a portion of the legal and consulting fees. In addition, the decision – whether to provide a legal support to a member company – is made by the Board of Directors of the relevant exporters' association, which is also comprised of representatives of the member companies. In other words, there is no approval and/or confirmation mechanism in which the government is involved. Exporters' associations are non-profit trade associations and the income of these associations are only fees collected from members.

Thus, as being a member of TSEA, during the IP Çolakoglu received negligible amount of money from TSEA to cover some portion of its expenses incurred for getting legal support in anti-dumping and countervailing duty investigations.

During the investigation period, Çolakoglu received support from TSEA for antidumping proceeding conducted against Colakoglu's hot-rolled steel export to the U.S.

3. Describe the application and approval procedures for obtaining a benefit under the program.

Çolakoglu makes application to TSEA regarding a particular AD/CV investigation. If TSEA's Board of Directors approves Colakoglu's application, it receives funding from TSEA

4. Where applicable, provide copies of the application form or other documentation used to apply for the program, all attachments and all contractual agreements entered into between your business and the Government of Turkey in relation to the program.

Çolakoglu does not believe this is a government sponsored program or a subsidy since the funder is not Government of Turkey instead it is a non-profit organization. In other words, Çolakoglu did not make any application to any government authority and therefore there is no approval and/or confirmation mechanism in which the government is involved.

While making the application to TSEA, Çolakoglu submits an official letter to TSEA and provides a copy of the agreement with the relevant law firm from which consulting services were received, copy of the invoice issued for the payment to the law/consulting firm, and bank receipt of the payment made to the law/consulting firm as attachment. Thus, there is no such printed application form. Çolakoglu provides a copy

of the official letter submitted to TSEA and bank slip showing the receipt of payment from TSEA in Attachment H-7-4. [CONFIDENTIAL ATTACHMENT]

5. Outline the fees charged to, or expenses incurred by your business for purposes of receiving the program.

There is no such fees or expenses incurred.

6. Outline the eligibility criteria your business had to meet in order to receive benefits under this program.

The Applicant has to be a member of TSEA and has been selected as a respondent in an AD/CVD investigation. The Board of Directors of TSEA, which is composed of the representatives of the member companies, decides to provide assistance based on its budget constraints.

- 7. State whether your eligibility for the program was conditional on one or more of the following criteria:
  - a) whether or not your business exports or has increased its exports;
  - b) the use of domestic rather than imported inputs;
  - c) the industry to which your business belongs; or
  - d) the region in which your business is located.

None of the above.

8. If the benefit was provided in relation to a specific activity or project of your entity, please identify the activity and provide supporting documentation.

The funding received from TSEA related to the AD/CVD investigation conducted by US Department of Commerce of which Çolakoglu was a respondent company. For supporting documentation see Attachment H-7-4.

9. What records does your business keep regarding each of the benefits received under this program? Provide copies of any records kept in relation to the program.

To receive this funding Colakoglu submitted a document to TSEA for requesting support. Colakoglu provides the document in Attachment H-7-4. [CONFIDENTIAL ATTACHMENT]

10. Indicate where benefits under this program can be found in your accounting system (i.e., specify the ledgers or journals) and financial statements.

Assistance from the Association is recorded under [CONFIDENTIAL TEXT DELETED – account code]. Çolakoglu provides the accounting journal entry of the assistance amount in Attachment H-7-10. [CONFIDENTIAL ATTACHMENT]

11. To your knowledge, does the program still operate or has it been terminated?

To Colakoglu's knowledge, the support by TSEA continues.

12. If the program has been terminated, please provide details (including when and why). When is the last date that your business could apply for or claim benefits under the program? When is the last date that your business could receive benefits under the program?

If the program terminated has been substituted for by another program, identify the program and answer all the questions in category H-7 in relation to this program

To Colakoglu's knowledge, the support by TSEA continues.

# H-8 Investment Incentive Program (Program 25)

The application refers to the Investment Encouragement Program implemented by Customs Duty and VAT Exemptions Council Ministers' Decree 2012/3305. The existence of this program was identified as Program No. I - Investment Incentive Program by the Government of Turkey in its New and Full Notification Pursuant to Article XVI:1 of the GATT 1994 and Article 25 of the Agreement on Subsidies and Countervailing Measures (the notification), dated 31 August 2017. The notification outlines the policy objective of this program.

The notification lists four different incentive schemes and nine different exemption measures that are in the scope of the program. These schemes and measures as set out in the notification are provided below. For the purpose of this questionnaire, each scheme listed in the Government of Turkey's notification will be treated as a program.

| Scheme<br>No. | Program<br>(Scheme) Name                      | Measures   |
|---------------|---|--|
| I.            | General<br>Investment<br>Incentive Scheme     | <ul><li>i. Customs duty exemption</li><li>ii. VAT exemption</li><li>iii. Income Tax Withholding Support (Only for Region 6)</li></ul>  |
| II.           | Regional<br>Investment<br>Incentive Scheme    | i. Customs duty exemption ii. VAT exemption iii. Tax deduction iv. Social security premium support - Employer's share v. Interest support (For Region 3,4,5 and 6) vi. Land allocation vii. Social security premium support -Employee's share (Only for Region 6) viii. Income Tax Withholding Support (Only for Region 6) |
| III.          | Large Scale<br>Investment<br>Incentive Scheme | i. Customs duty exemption ii. VAT exemption iii. Tax deduction iv. Social security premium support - Employer's share v. Land allocation vi. Social security premium support -Employee's share (Only for Region 6) vii. Income Tax Withholding Support (Only for Region 6)   |
| IV.           | Strategic<br>Investment<br>Incentive Scheme   | i. Customs duty exemption ii. VAT exemption  |

| Scheme<br>No. | Program<br>(Scheme) Name | Measures  |
|---------------|--------------------------|---|
|               |                          | iii. Tax deduction  |
|               |                          | iv. Social security premium support - Employer's share                      |
|               |                          | v. Interest support (For Region 3,4,5 and 6)                                |
|               |                          | vi. Land allocation   |
|               |                          | vii. VAT Refund   |
|               |                          | viii. Social security premium support -Employee's share (Only for Region 6) |
|               |                          | ix. Income Tax Withholding Support (Only for Region 6)                      |

To the extent that any of the schemes and measures listed above are separately identified in Table H-1 please indicate this in your response to the questions from Section H in relation to the particular program. Otherwise complete a response to the following for each program.

Indicate whether your company benefited from any of the programs listed above.

# Colakoglu did not use investment incentive program during the period.

- If yes, indicate which goods you produced that benefited from the program (e.g. the program may have benefited all production, or only certain products that have undergone research and development).
- 3. Describe the application and approval procedures for obtaining a benefit under the program.
- 4. Where applicable, provide copies of the application form or other documentation used to apply for the program, all attachments and all contractual agreements entered into between your business and the Government of Turkey in relation to the program.
- 5. Outline the fees charged to, or expenses incurred by your business for purposes of receiving the program.
- 6. Outline the eligibility criteria your business had to meet in order to receive benefits under this program.
- State whether your eligibility for the program was conditional on one or more of the following criteria:
  - a) whether or not your business exports or has increased its exports;
  - b) the use of domestic rather than imported inputs;
  - c) the industry to which your business belongs; or
  - d) the region in which your business is located.
- 8. If the benefit was provided in relation to a specific activity or project of your entity, please identify the activity and provide supporting documentation.
- 9. What records does your business keep regarding each of the benefits received under this program? Provide copies of any records kept in relation to the program.
- 10. Indicate where benefits under the program can be found in your accounting system (i.e., specify the ledgers or journals) and financial statements.
- 11. To your knowledge, does the program still operate or has it been terminated?
- 12. If the program has been terminated, please provide details (including when and why). When is the last date that your business could apply for or claim benefits under the program? When is the last date that your business could receive benefits under the program?

# H-9 Other Programs

1. Provide a list of all the provinces in which you have business operations (including locations of factories, sales offices, or other places of business).

Çolakoglu's production plant is in Kocaeli. Head office is in Istanbul.

2. Are you aware of any programs of the Government of Turkey, any of its agencies or any other authorised body, that provide benefits manufacturers of the goods that have not been accounted for in this questionnaire? Provide the name of those programs you are aware of (even if your company is not eligible to receive benefit under the program.)

To be fully cooperative, Çolakoglu would like to report support programs below which have been found non-countervailable in countervailing duty investigations conducted by the US Department of Commerce.

- Minimum Wage Support; some portion of employers' share is covered by Treasury to reduce the employment cost of companies which employs disability, old-age and death-insured employees without discriminating any sector, region or company.
- Employment of Handicapped Staff; some portion of employers' share is covered by Treasury to encourage businesses to employ handicapped personnel without discriminating any sector, region or company.
- Employment of Unemployed; some portion of employers' share is covered by Treasury to reduce the unemployment level without discriminating any sector, region or company.
- 5 % Deduction of Employers' Share of Social Security Premiums; employers may deduct 5 % of their share of social security payments provided that the certain conditions are met. The three criteria are: (a) employer's timely submission of required documents for premiums and service to the Social Security Administration; (b) the employer's payment of premiums corresponding to the insured employee's share which are not covered by the Treasury (Employer's share after deduction of five percent Treasury contribution) for all insured employees are made within legal time limits; and (c) the absence of any debt to the Government for premium, administrative fine or related late fees or penalties for delay to the Social Security Administration. This deduction is implemented without discriminating any sector, region or company.

Çolakoglu understands that the above listed programs are being implemented countrywide and therefore not specific to any sector, region or company.

In addition to these unspecific support programs, Çolakoglu also received assistance from MESS (Turkish Employers' Association of Metal Industries) which is not a government authority.

Colakoglu is not aware of any other programs of the Government of Turkey.

3. Indicate the location of the program by region, province or municipal level.

Please refer to the information provided in H-9.2

- 4. Indicate the type of program, for example:
  - the provision of grants, awards or prizes;
  - the provision of goods or services at a reduced price (e.g. electricity, gas, transport);
  - the reduction of tax payable including income tax and VAT;
  - reduction in land use fees;

- loans from Policy Banks at below-market rates; or
- any other form of assistance.

Please refer to the information provided in H-9.2

For each program that you have identified, answer the following.

- 5. Indicate whether your company benefited from any of the listed programs during the period.
- 6. Indicate which goods you produced that benefited from the program (e.g. the program may have benefited all production or only certain products that have undergone research and development).
- 7. Describe the application and approval procedures for obtaining a benefit under the program.
- 8. Where applicable, provide copies of the application form or other documentation used to apply for the program, all attachments and all contractual agreements entered into between your business and the Government of Turkey in relation to the program.
- Outline the fees charged to, or expenses incurred by your business for purposes of receiving the program.
- Outline the eligibility criteria your business had to meet in order to receive benefits under this program.
- 11. State whether your eligibility for the program was conditional on one or more of the following criteria:
  - a) whether or not your business exports or has increased its exports;
  - b) the use of domestic rather than imported inputs;
  - c) the industry to which your business belongs; or
  - d) the region in which your business is located.
- 12. If the benefit was provided in relation to a specific activity or project of your entity, please identify the activity and provide supporting documentation.
- 13. What records does your business keep regarding each of the benefits received under this program? Provide copies of any records kept in relation to the program.
- 14. Indicate where benefits under this program can be found in your accounting system (i.e., specify the ledgers or journals) and financial statements.
- 15. To your knowledge, does the program still operate or has it been terminated?
- 16. If the program has been terminated, please provide details (including when and why). When is the last date that your business could apply for or claim benefits under the program? When is the last date that your business could receive benefits under the program?

If the program terminated has been substituted for by another program, identify the program and answer all the questions that may be relevant to this new program.

Please refer to the information provided in H-9.2

# **EXPORTER'S DECLARATION**

I hereby declare that Çolakoglu Metalurji A.S. have completed the attached questionnaire and, having made due inquiry, certify that the information contained in this submission is complete and correct to the best of my knowledge and belief.

Name: Uğur DALBELER

Signature: ÇONAKOĞLU METALURJI A.Ş

Position in company: CEO

Date: 11.01.2019

Çolakoğlu Metalurji



Çolakoğlu Metalurji PRODUCT CATALOG

Signature of the quality...



# Çolakoğlu Metalurji | PRODUCT CATALOG

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# Symbols and Abbravitions Used for Chemical Elements

| Symbols | Element                  |  |  |
|---------|--------------------------|--|--|
| С       | Carbon                   |  |  |
| Mn      | Manganese                |  |  |
| Р       | Phosphorus               |  |  |
| S       | Sulphur                  |  |  |
| Si      | Silicon                  |  |  |
| Al      | Aluminum                 |  |  |
| Cu      | Copper                   |  |  |
| N       | Nitrogen                 |  |  |
| 0       | Oxygen                   |  |  |
| н       | Hydrogen                 |  |  |
| Ca      | Calcium                  |  |  |
| Ti      | Titanium                 |  |  |
| V       | Vanadium Chromium Nickel |  |  |
| Cr      |                          |  |  |
| Ni      |                          |  |  |
| Мо      | Molybdenum               |  |  |
| Nb      | Niobium                  |  |  |
| В       | Boron                    |  |  |
| Sn      | Tin                      |  |  |
| Fe      | Iron                     |  |  |
| Zn      | Zinc                     |  |  |
| Pb      | Lead                     |  |  |
| As      | Arsenic                  |  |  |
| W       | Wolfram (Tungsten)       |  |  |
| Zr      | Zirconium                |  |  |

# **Symbols and Abbravitions Used For Mechanical Tests**

| Symbols                | Explanation   | Symbols    | Explan             |
|------------------------|---|------------|--------------------|
| R <sub>e</sub>         | Yield strength  | min.       | Minim              |
| R <sub>m</sub>         | Tensile strength                                      | max.       | Maxim              |
| R <sub>p0.2</sub>      | Proof strength  | =          | Equal t            |
| Α                      | Elongation (%)  | <          | Smalle             |
| <b>A</b> <sub>5</sub>  | Elongation ( $L_0=5.65x \sqrt{S_0}$ )                 | ≤          | Smalle             |
| A <sub>50</sub>        | Elongation (L <sub>0</sub> =50 mm)                    | >          | Larger             |
| A <sub>80</sub>        | Elongation (L <sub>0</sub> =80 mm)                    | ≥          | Larger             |
| A <sub>100</sub>       | Elongation (L <sub>0</sub> =100 mm)                   | Ppm        | Parts p            |
| A <sub>200</sub>       | Elongation (L <sub>0</sub> =200 mm)                   | Ø          | Diame              |
| So                     | Cross-sectional area of the                           | Af         | Specifi            |
| L <sub>o</sub>         | specimen (mm²)  Original gauge length of the specimen | Axc<br>U   | Cross s<br>Minimu  |
| d                      | Nominal thickness (mm)                                | U          | (N / mr            |
| t                      | Ton   | DWTT       | Drop-              |
| Impact                 | Impact test   |            |                    |
| <b>KV</b> <sub>c</sub> | Impact energy (J)                                     | Trans. = t | Transve<br>in some |
| Temp.                  | Test temperature (°C)                                 |            |                    |
| Bend                   | Bend test   |            | Longit             |
| mrb                    | Mandrel radius for bending                            | Long. = I  | as "Lon<br>"I" can |
| mdb                    | Mandrel diameter for bending                          |            | i Can              |
| trans.                 | Traverse test piece                                   |            | thickne            |
| long.                  | Longitudinal test piece                               | d, T       | in som             |
| HRB                    | Hardness of Rockwell "B"                              |            | as "T" c           |

| Symbols    | Explanation  |  |
|------------|--|--|
| min.       | Minimum  |  |
| max.       | Maximum  |  |
| =          | Equal to   |  |
| <          | Smaller than   |  |
| ≤          | Smaller than or equal to   |  |
| >          | Larger than  |  |
| ≥          | Larger than or equal to  |  |
| Ppm        | Parts per million  |  |
| Ø          | Diameter   |  |
| Af         | Specified minimum elongation   |  |
| Axc        | Cross sectional area (mm²)   |  |
| U          | Minimum tensile strength (N / mm²)   |  |
| DWTT       | Drop- weight tear test   |  |
| Trans. = t | Transverse (In some places as "trans." in some places as "t" can be used.)                     |  |
| Long. = I  | Longitudinal (In some places as "Long." in some places as "I" can be used. )                   |  |
| d, T       | thickness (Because of the standards in some places as "d", in some places as "T" can be used.) |  |

Çolakoğlu Metalurji | PRODUCT CATALOG



**PRODUCT RANGE & CERTIFICATE** 

# **PRODUCT RANGE & CERTIFICATE**

# **■ SEMI PRODUCTS - Billet**

Size: 130 x 130 mm. 150 x 150 mm. 200 x 200 mm.

Length: 6 – 16 m. Capacity: 2.500.000 mt

Standard: TS, UNI, DIN, BS, ASTM, JS, NEN, CAN/CSA, IS

# Certificate

- ISO 9001: 2008 Quality System Certificate
- CARES BS EN ISO 9001:2008 Quality System Certificate
- TS Proficiency Certificate (Turkey)
- ISO 14001
- OHSAS 18001

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# **SEMI PRODUCTS - Slab**

Thickness: 200 – 250 mm. Width: 800 – 1.650 mm.

Length: 6 – 16m. Capacity: 3.500.000 mt

Standard: DIN 10025, DIN 1614, DIN 10111, DIN 10083, DIN 10028, DIN 10120, DIN EN 10217, DIN EN 10149, DIN 10338, ASTM A36, ASTM A53, ASTM A283, ASTM A500, ASTM A572, ASTM A1011, ASTM A1018, SAE J403, JIS G 3101, JIS G 3131, JIS G 3132, API 5L ve API 5CT

# Certificate

- CE Certificate
- ISO 9001 Quality System Certificate
- ISO 14001
- OHSAS 18001

# **■ FINAL PRODUCT- Hot Rolled Products**

Thickness: 1.2 – 25.4 mm. Width: 800 – 1.650 mm. Coil Weight: 39 tonnes Capacity: 4.500.000 mt

Standard: DIN 10025, DIN 1614, DIN 10111, DIN 10083, DIN 10028, DIN 10120, DIN EN 10217, DIN EN 10149, DIN 10338, ASTM A36, ASTM A53, ASTM A283, ASTM A500, ASTM A572, ASTM A1011, ASTM A1018, SAE J403, JIS G 3101, JIS G 3131, JIS G 3132, API 5L ve API 5CT

# Certificate

- CE Certificate
- ISO 9001 Quality System Certificate
- ISO 14001
- OHSAS 18001
- TISI (Thailand)

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# FINAL PRODUCT- Reinforcing Bar

Diameter: 8 – 40 mm Length: 6 – 18 m Capacity: 1.000.000 mt

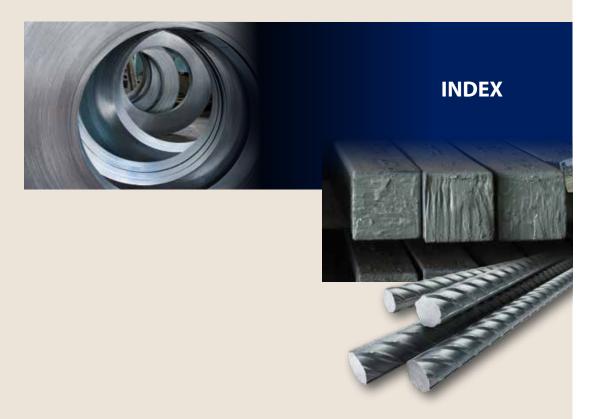
Standard: TS, UNI, DIN, BS, ASTM, JS, NEN, CAN/CSA, IS

# Certificate

- ISO 9001:2008 Quality System Certificate
- CARES BS EN ISO 9001:2008 Quality System Certificate
- TS Proficiency Certificate (Turkey)
- ISO 14001
- OHSAS 18001
- DCL Products Conformity Certification Scheme (Dubai)
- KIWA KOMO Product Certificate (Netherlands)
- Attestato Dı Qualifizazione (Italy)
- CERTIF (Portugal)
- ICECON (Romania)
- MPA-Nvr (Germany)
- Bulgarkontrola S.A (Bulgaria)
- The Standards Institution of Israel
- Falcao Bauer (Brazil)

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|   |                               | ASTM A500 Grade B          | 56542             |
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| FLAT PRODUCT QUALITIES & USING AREAS  |                              |                                      |                         |  |
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| Steels suitable for hot forming and normalizing                                     | DIN EN 10025<br>Part 2 -2004 | S235J2+N                             | 52235                   |  |
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| Using Areas of Steel Qualities   | Standard                     | Standard Quality                | Colakoglı<br>Quality id |
|--|------------------------------|---------------------------------|-------------------------|
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| FLAT PRODUCT QUALITIES & USING AREAS   |                               |                           |                         |  |
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| Using Areas of Steel Qualities   | Standard                      | Standard Quality          | Colakoglu<br>Quality id |  |
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|  |                               | SAE 1010                  | 91010                   |  |
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|  |                               | SAE 1012                  | 91012                   |  |
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|  |                               | SAE 1020                  | 91020                   |  |
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|  |                               | SAE 1040                  | 91040                   |  |
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| TS 708 : 2010     | B 500 C    |  |  |  |  |  |  |  |
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| NEN 6008:2008        | B 500 B          |  |  |  |  |  |  |  |  |
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| DIN 488: 2009        | B 500 B          |  |  |  |  |  |  |  |  |
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| IS 6935-2 : 2007     | B 500 BWR        |  |  |  |  |  |  |  |  |
| TS 708: 2010         | B 500 C          |  |  |  |  |  |  |  |  |
| BDS 9252 : 2007      | B 500B           |  |  |  |  |  |  |  |  |
| ABNT NBR 7480 : 2017 | CA 50            |  |  |  |  |  |  |  |  |
| NF A35-016:1986      | FEE 400          |  |  |  |  |  |  |  |  |
| NF A35-016:1996      | FEE 500          |  |  |  |  |  |  |  |  |
| ASTM A615            | GR 40            |  |  |  |  |  |  |  |  |
| ASTM A615            | GR 60            |  |  |  |  |  |  |  |  |
| ASTM A706            | GR 60            |  |  |  |  |  |  |  |  |
| ASTM A615            | GR 75            |  |  |  |  |  |  |  |  |
| JS 33: 1999          | GR 300           |  |  |  |  |  |  |  |  |
| JS 33 : 1999         | GR 400           |  |  |  |  |  |  |  |  |
| CAN/CSA.G30.18-09    | GR 400R          |  |  |  |  |  |  |  |  |
| CAN/CSA.G30.18-09    | GR 400W          |  |  |  |  |  |  |  |  |
| BS 4449:1997         | GR 460 B         |  |  |  |  |  |  |  |  |

| BILLET QU         | ALITIES    |
|-------------------|------------|
| Standard          | Qualities  |
| MS 146: 2006      | GR 500 B   |
| CAN/CSA.G30.18-09 | GR 500R    |
| CAN/CSA.G30.18-09 | GR 500W    |
| BS 4449:2005      | GR B 500 B |
| SR 438-1:2012     | OB 37      |
| SR 438-1:2012     | PC 52      |
| IS 4466-3:2013    | S 400      |
| IS 4466-3:2013    | S 400 W    |
| TS 708: 2010      | S 420      |
| ASTM A510         | SAE 1006   |
| ASTM A510         | SAE 1008   |
| ASTM A510         | SAE 1010   |
| ASTM A510         | SAE 1012   |
| ASTM A510         | SAE 1015   |
| ASTM A510         | SAE 1018   |
| ASTM A510         | SAE 1020   |
| ASTM A510         | SAE 1030   |
| ASTM A510         | SAE 1035   |
| ASTM A510         | SAE 1040   |
| ASTM A510         | SAE 1045   |
| ASTM A510         | SAE 1050   |
| ASTM A510         | SAE 1060   |
| DIN 17100         | St 50      |
| DIN 17100         | St 60      |
| DIN 17100         | St 37-2    |

**Çolakoğlu** Metalurji PRODUCT CATALOG



**Thickness:** 1.2 - 25.4 mm

Width: 800 - 1650 mm

Coil Weight: 39 tonnes

Mandrel Diameter: 762 mm

|            | HOT ROLLED COILS FOR COLD ROLLING & GALVANIZING |         |          |         |         |         |       |                  |       |      |      |      |      |
|------------|---|---------|----------|---------|---------|---------|-------|------------------|-------|------|------|------|------|
|            | Standard: DIN 1614-Part1                        |         |          |         |         |         |       |                  |       |      |      |      |      |
|            | Chemical Composition (%)                        |         |          |         |         |         |       |                  |       |      |      |      |      |
| Colakoglu  | Standard  | Quality |          | С       | Mn      | P       | S     | N <sup>(1)</sup> | Al    |      |      |      |      |
| Quality id | Stalluaru                                       | Quality | Quality  | Quality | Quality | Quality |       | max.             | max.  | max. | max. | max. | min. |
| 20122      | DIN 1614-1                                      | St 22   | Standard | 0.10    | 0.45    | 0.035   | 0.035 | 0.007            | _     |      |      |      |      |
| 25122      | DIN 1614-1                                      | St 22   | Standard | 0.10    | 0.45    | 0.035   | 0.035 | 0.007            | _     |      |      |      |      |
| 20123      | DIN 1614-1                                      | RRSt 23 | Standard | 0.10    | 0.45    | 0.030   | 0.030 |                  | 0.020 |      |      |      |      |
| 20124      | DIN 1614-1                                      | St 24   | Standard | 0.08    | 0.40    | 0.025   | 0.025 | _                | 0.020 |      |      |      |      |

1) The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of 0.020 %.

|                             | HO           | T ROLLED               | LOW CA   | RBON ST | EELS FO | R COLD F | ORMING |       |       |  |  |
|-----------------------------|--------------|------------------------|----------|---------|---------|----------|--------|-------|-------|--|--|
|                             |              |                        |          |         |         |          |        |       |       |  |  |
| Standard: DIN EN 10111-2008 |              |                        |          |         |         |          |        |       |       |  |  |
| Chemical Composition (%)    |              |                        |          |         |         |          |        |       |       |  |  |
| Colakoglu                   | 6: 1 1       | 0(1)                   |          | C       | Mn      | Р        | S      | N     | Al    |  |  |
| Quality id                  | Standard     | Quality <sup>(1)</sup> |          | max.    | max.    | max.     | max.   | max.  | min.  |  |  |
| 30111 <sup>(3)</sup>        | DIN EN 10111 | DD11                   | Standard | 0.12    | 0.60    | 0.045    | 0.045  | 0.007 | _     |  |  |
| 30112 <sup>(4)</sup>        | DIN EN 10111 | DD12                   | Standard | 0.10    | 0.45    | 0.035    | 0.035  | _     | 0.020 |  |  |
| 30511(2)(3)                 | DIN EN 10111 | DD11                   | Standard | 0.12    | 0.60    | 0.045    | 0.045  | 0.007 | _     |  |  |
| 30113 <sup>(4)</sup>        | DIN EN 10111 | DD13                   | Standard | 0.08    | 0.40    | 0.030    | 0.030  | _     | 0.020 |  |  |
| 35111                       | DIN EN 10111 | DD11                   | Standard | 0.12    | 0.60    | 0.045    | 0.045  | _     | _     |  |  |
| 34111                       | DIN EN 10111 | DD11                   | Standard | 0.12    | 0.60    | 0.045    | 0.045  | 0.007 | _     |  |  |

1) All grades are produced as fully killed steel (Al  $\geq$  % 0.02 ) 2) Cu = % 0.20 - 0.40

3) Guarantee period in usage is one month in standard (When Al  $\geq$  % 0.02, Guarantee period is 6 months.)

4) Guarantee period in usage is 6 months.

|            | Mechanical Properties |                     |           |                   |                   |          |          |         |                |  |  |  |  |
|------------|-----------------------|---------------------|-----------|-------------------|-------------------|----------|----------|---------|----------------|--|--|--|--|
|            |                       |                     | Re        | 2                 | Rm <sup>(1)</sup> |          |          | Bending |                |  |  |  |  |
|            |                       |                     |           | N/mm <sup>2</sup> |                   | AB       | D        | A5      | (trans., 180°) |  |  |  |  |
| Colakoglu  | Standard              | 1.5≤ d < 2 2≤ d ≤ 8 |           |                   | 1.5≤ d < 2        | 2≤ d < 3 | 3≤ d < 8 | mrb     |                |  |  |  |  |
| Quality id | Standard              | Quality             |           |                   | max.              | min.     | min.     | min.    | d: thickness   |  |  |  |  |
| 30111      | DIN EN 10111          | DD11                | 170 - 360 | 170 - 340         | 440               | 23       | 24       | 28      | 1 d            |  |  |  |  |
| 30112      | DIN EN 10111          | DD12                | 170 - 340 | 170 - 320         | 420               | 25       | 26       | 30      | 0              |  |  |  |  |
| 30511      | DIN EN 10111          | DD11                | 170 - 360 | 170 - 340         | 440               | 23       | 24       | 28      | 1 d            |  |  |  |  |
| 30113      | DIN EN 10111          | DD13                | 170 - 330 | 170 - 310         | 400               | 28       | 29       | 33      | 0              |  |  |  |  |
| 35111      | DIN EN 10111          | DD11                | 170 - 360 | 170 - 340         | 440               | 23       | 24       | 28      | 1 d            |  |  |  |  |
| 34111      | DIN EN 10111          | DD11                | 170 - 360 | 170 - 340         | 440               | 23       | 24       | 28      | 1 d            |  |  |  |  |

# Explanations

1) Tensile tests are applied to "Transverse" test samples.

|            | UNALLOYED STEELS FOR PIPE & TUBE APPLICATIONS                       |         |          |      |      |       |       |      |                   |                   |                   |                   |                         |
|------------|---|---------|----------|------|------|-------|-------|------|-------------------|-------------------|-------------------|-------------------|-------------------------|
|            | Standard: ASTM A53-2006   |         |          |      |      |       |       |      |                   |                   |                   |                   |                         |
|            | Chemical Composition (%)  |         |          |      |      |       |       |      |                   |                   |                   |                   |                         |
| Colakoglu  | C4  | 0       |          | C    | Mn   | P     | S     | Si   | Cu <sup>(1)</sup> | Ni <sup>(1)</sup> | Cr <sup>(1)</sup> | Mo <sup>(1)</sup> | <b>V</b> <sup>(1)</sup> |
| Quality id | Quality id Standard Quality max. max. max. max. max. max. max. max. |         |          |      |      |       |       |      |                   |                   |                   |                   |                         |
| 56053      | ASTM A53  | Grade A | Standard | 0.25 | 0.95 | 0.050 | 0.045 | 0.35 | 0.50              | 0.40              | 0.40              | 0.15              | 0.08                    |

#### Explanation

1) Total weight of these elements are max. % 1.00 for ASTM A53 Grade A.

|                              | Mechanical Properties |         |        |                |        |  |  |  |  |  |  |
|------------------------------|-----------------------|---------|--------|----------------|--------|--|--|--|--|--|--|
| Re Rm <sup>(1)</sup> A50 (%) |                       |         |        |                |        |  |  |  |  |  |  |
| Colakoglu                    | -                     |         | (min.) | (min.)         | (min.) |  |  |  |  |  |  |
| Quality id                   | Standard              | Quality | N/mm   | ) <sup>2</sup> |        |  |  |  |  |  |  |
| 56053                        | ASTM A53              | Grade A | 205    | 330            | (2)    |  |  |  |  |  |  |

# Explanations

1) Tensile tests are applied to "Longitudinal" test samples.

2)  $A_{s_0}$  (%) = 1940  $S_0^{0.2}$  /  $U^{0.9}$  (So : Cross sectional area, mm<sup>2</sup>; U : Tensile stress, N/mm<sup>2</sup>)

|                      | UNALLOYED PIPE & TUBE STEELS SUITABLE FOR GALVANIZING               |         |          |      |      |       |       |    |                   |                   |                   |                   |                         |
|----------------------|---|---------|----------|------|------|-------|-------|----|-------------------|-------------------|-------------------|-------------------|-------------------------|
|                      | Standard: ASTM A53-2006   |         |          |      |      |       |       |    |                   |                   |                   |                   |                         |
|                      | Chemical Composition (%)  |         |          |      |      |       |       |    |                   |                   |                   |                   |                         |
| Colakoglu            | 6   | 0 15    |          | C    | Mn   | P     | S     | Si | Cu <sup>(1)</sup> | Ni <sup>(1)</sup> | Cr <sup>(1)</sup> | Mo <sup>(1)</sup> | <b>V</b> <sup>(1)</sup> |
| Quality id           | Quality id Standard Quality max. max. max. max. max. max. max. max. |         |          |      |      |       |       |    |                   |                   |                   | max.              |                         |
| 56053 <sup>(1)</sup> | ASTM A53  | Grade A | Standard | 0.25 | 0.95 | 0.050 | 0.045 | -  | 0.50              | 0.40              | 0.40              | 0.15              | 0.08                    |

# Explanations

- 1) Total weight of these elements are max. % 1.00 for ASTM A53 Grade A.
- 2) 56453 with %Si  $\leq$  0.04 is suitable for galvanizing and cold forming.

|                             | Mechanical Properties |         |        |                |        |  |  |  |  |  |  |
|-----------------------------|-----------------------|---------|--------|----------------|--------|--|--|--|--|--|--|
| Re Rm <sup>(1)</sup> A50 (9 |                       |         |        |                |        |  |  |  |  |  |  |
| Colakoglu                   | C4                    | 01:4    | (min.) | (min.)         | (min.) |  |  |  |  |  |  |
| Quality id                  | Standard              | Quality | N/mm   | 1 <sup>2</sup> |        |  |  |  |  |  |  |
| 56053                       | ASTM A53              | Grade A | 205    | 330            | (2)    |  |  |  |  |  |  |

# Explanations

1) Tensile tests are applied to "Longitudinal" test samples.

2)  $A_{s_0}$  (%) = 1940  $S_0^{0.2}$  /  $U^{0.9}$  (So : Cross sectional area, mm<sup>2</sup>; U : Tensile stress, N/mm<sup>2</sup>)

|   | UNALLOYED PIPE & TUBE STEELS SUITABLE FOR GALVANIZING |         |          |      |      |       |       |      |  |  |
|---|---|---------|----------|------|------|-------|-------|------|--|--|
|   | Standard: ASTM A500-2007                              |         |          |      |      |       |       |      |  |  |
|   | Chemical Composition (%)                              |         |          |      |      |       |       |      |  |  |
| Colakoglu   | Standard  | Ouglitu |          | C    | Mn   | P     | S     | Cu   |  |  |
| Quality id  | Standard  | Quality |          | max. | max. | max.  | max.  | min. |  |  |
| <b>56542</b> ASTM A500 <b>Grade B</b> Standard 0.26 1.35 0.035 0.035 0.20 |   |         |          |      |      |       |       |      |  |  |
| 56546   | ASTM A500   | Grade C | Standard | 0.23 | 1.35 | 0.035 | 0.035 | 0.20 |  |  |

# Explanations

1) For each reduction of 0.01 % for carbon, an increase of 0.06 % for manganese is permitted, up to a maximum of 1.50 %.

|            | Mechanical Properties |         |        |                   |       |  |  |  |  |  |  |
|------------|-----------------------|---------|--------|-------------------|-------|--|--|--|--|--|--|
|            |                       |         | Re     | Rm <sup>(1)</sup> | A(%)  |  |  |  |  |  |  |
| Colakoglu  | Ctdd                  | 0!!     | (min.) | (min.)            | A50   |  |  |  |  |  |  |
| Quality id | Standard              | Quality | N/mr   | min.              |       |  |  |  |  |  |  |
| 56542      | ASTM A500             | Grade B | 290    | 400               | 23(2) |  |  |  |  |  |  |
| 56546      | ASTM A500             | Grade C | 315    | 425               | 21(3) |  |  |  |  |  |  |

# Explanations

- 1) Tensile tests are applied to "Longitudinal" test samples.
- 2) Given elongation values are valid for 4.7 mm and thicker samples. % elongation = 2.40.d+ 12 formula is applied for the products with lower thickness than 4.7 mm
- 3) Given elongation values are applied for 3.05 mm and thicker samples.

|   | UNALLOYED GENERAL STRUCTURAL STEEL |        |  |   |                   |   |   |    |  |  |  |  |
|---|------------------------------------|--------|--|---|-------------------|---|---|----|--|--|--|--|
|   | Standard: ASTM A36-2005            |        |  |   |                   |   |   |    |  |  |  |  |
|   | Chemical Composition (%)           |        |  |   |                   |   |   |    |  |  |  |  |
| Colakoglu   | Ctondord                           | Oalitu |  | C | Mn <sup>(2)</sup> | P | S | Si |  |  |  |  |
| Quality id  | Standard Quality                   |        |  |   |                   |   |   |    |  |  |  |  |
| 56036         ASTM A36         A36         Standard         0.25         0.80 - 1.20         0.040         0.050         0.40 |                                    |        |  |   |                   |   |   |    |  |  |  |  |

# Explanations

- 1) If the thickness is 20 mm and thinner, Mn % limit is not required.
- 2) For each reduction of 0.01 % for carbon, an increase of 0.06 % for manganese is permitted, up to a maximum of 1.35 %.
- 3) Optionally, 0.2 % Cu is permitted.

| Mechanical Properties                               |              |         |        |           |      |      |       |                 |  |  |  |
|---|--------------|---------|--------|-----------|------|------|-------|-----------------|--|--|--|
| Re Rm <sup>(1)</sup> A(%) Impact <sup>(2),(3)</sup> |              |         |        |           |      |      |       |                 |  |  |  |
| Colakoglu   | Character of | 0       | (min.) | (min.)    | A50  | A200 | Temp. | KV <sub>c</sub> |  |  |  |
| Quality id  | Standard     | Quality | N/r    | nm²       | min. | min. | C     | J               |  |  |  |
| 56036   | ASTM A36     | A36     | 250    | 400 - 550 | 18   | -20  | 40    |                 |  |  |  |

# Explanatio

- 1) Tensile tests are applied to "Transverse" test samples.
- 2) Impact tests are not required if nominal thickness is lesser than 6 mm.
- 3) Impact tests are carried out if it is customer's request in order.

| UNALLOYED GENERAL STRUCTURAL STEEL SUITABLE FOR GALVANIZING                 |   |        |  |   |    |   |   |    |  |  |  |  |
|---|---|--------|--|---|----|---|---|----|--|--|--|--|
|   | Standard: ASTM A36-2005                                   |        |  |   |    |   |   |    |  |  |  |  |
|   | Chemical Composition (%)                                  |        |  |   |    |   |   |    |  |  |  |  |
| Colakoglu   | Ctondord  | Oalitu |  | C | Mn | P | S | Cu |  |  |  |  |
| Quality id  | Quality id Caracter Quality Max. Max. Max. Max. Max. Max. |        |  |   |    |   |   |    |  |  |  |  |
| <b>56036</b> ASTM A36 <b>A36</b> Standard 0.25 0.80 - 1.20 0.040 0.050 0.40 |   |        |  |   |    |   |   |    |  |  |  |  |

# Explanations

- 1) If the thickness is 20 mm and thinner, Mn % limit is not required.
- 2) For each reduction of 0.01% for carbon, an increase of 0.06% for manganese is permitted, up to a maximum of 1.35%.
- 3) Optionally, 0.2 % Cu is permitted.

|            | Mechanical Properties                                      |         |        |        |      |      |       |                 |  |  |  |  |  |
|------------|--|---------|--------|--------|------|------|-------|-----------------|--|--|--|--|--|
|            | Re Rm <sup>(1)</sup> A(%) Impact <sup>(2),(3)</sup>        |         |        |        |      |      |       |                 |  |  |  |  |  |
| Colakoglu  | C4   | 0       | (min.) | (min.) | A50  | A200 | Temp. | ΚV <sub>C</sub> |  |  |  |  |  |
| Quality id | Standard   | Quality | N/r    | nm²    | min. | min. | C     | J               |  |  |  |  |  |
| 56036      | <b>6036</b> ASTM A36 <b>A36</b> 250 400 - 550 23 20 -20 40 |         |        |        |      |      |       |                 |  |  |  |  |  |

# Explanations

- 1) Tensile tests are applied to "Transverse" test samples.
- 2) Impact tests are not required if nominal thickness is lesser than 6 mm.
- 3) Impact tests are carried out if it is customer's request in order.

| UNALLOYED GENERAL STRUCTURAL STEEL  |   |        |  |   |                   |   |   |    |  |  |  |  |
|---|---|--------|--|---|-------------------|---|---|----|--|--|--|--|
|   | Standard: ASTM A283-2003                    |        |  |   |                   |   |   |    |  |  |  |  |
|   | Chemical Composition (%)                    |        |  |   |                   |   |   |    |  |  |  |  |
| Colakoglu   | Ctondovd                                    | Oalita |  | C | Mn <sup>(2)</sup> | P | S | Si |  |  |  |  |
| Quality id  | Quality id Quality max. max. max. max. max. |        |  |   |                   |   |   |    |  |  |  |  |
| 56380         ASTM A283         Grade C         Standard         0.24         0.90         0.035         0.040         0.40 |   |        |  |   |                   |   |   |    |  |  |  |  |

| Mechanical Properties |   |        |     |                   |      |      |  |  |  |  |  |  |
|-----------------------|---|--------|-----|-------------------|------|------|--|--|--|--|--|--|
|                       |   |        | Re  | Rm <sup>(1)</sup> | A(%  | )    |  |  |  |  |  |  |
| Colakoglu             | Standard  | (min.) | A50 | A200              |      |      |  |  |  |  |  |  |
| Quality id            |   |        | N/m | m²                | min. | min. |  |  |  |  |  |  |
| 56380                 | 56380         ASTM A283         Grade C         205         380 - 515         23         20 |        |     |                   |      |      |  |  |  |  |  |  |

# Explanations

1) Tensile tests are applied to "Transverse" test samples.

|                                  | STRUCTURAL STEELS SUITABLE FOR COLD FORMING & BENDING                      |              |       |      |      |       |       |      |      |      |      |      |       |       |       |        |
|----------------------------------|--|--------------|-------|------|------|-------|-------|------|------|------|------|------|-------|-------|-------|--------|
| Standard: ASTM A1011 / A1011M-07 |  |              |       |      |      |       |       |      |      |      |      |      |       |       |       |        |
| Chemical Composition (%)         |  |              |       |      |      |       |       |      |      |      |      |      |       |       |       |        |
| Colakoglu                        | Colakoglu C Mn P S Si Cu <sup>(2)</sup> Ni Cr Mo V Nb Ti <sup>(3)</sup> Ca |              |       |      |      |       |       |      |      |      |      |      |       | Ca    |       |        |
| Quality id                       | Standard   | Quality      |       | max. | max. | max.  | max.  | max. | max. | max. | max. | max. | max.  | max.  | max.  | max.   |
| 56340                            | ASTM A1011   | CS Type B    | Stan. | 0.15 | 0.60 | 0.030 | 0.035 | -    | 0.20 | 0.20 | 0.15 | 0.06 | 0.008 | -     | 0.025 | 0.0080 |
| 56360                            | ASTM A1011   | SS Grade 33  | Stan. | 0.25 | 0.90 | 0.035 | 0.04  | -    | 0.20 | 0.20 | 0.15 | 0.06 | 0.008 | -     | 0.025 | 0.0080 |
| 56365                            | ASTM A1011   | SS 36 Type 1 | Stan. | 0.25 | 0.90 | 0.035 | 0.040 | -    | 0.20 | 0.20 | 0.15 | 0.06 | 0.008 | -     | 0.025 | 0.0080 |
| 56400 <sup>(1)</sup>             | ASTM A1011   | SS 36 Type 2 | Stan. | 0.25 | 1.35 | 0.035 | 0.040 | -    | 0.20 | 0.20 | 0.15 | 0.06 | 0.008 | 0.008 | 0.025 | -      |
| 56454                            | ASTM A1011   | SS Grade 50  | Stan. | 0.25 | 1.35 | 0.035 | 0.04  | -    | 0.20 | 0.20 | 0.15 | 0.06 | 0.008 | -     | 0.025 | -      |
| 56450                            | ASTM A1011   | SS Grade 50  | Stan. | 0.25 | 1.35 | 0.035 | 0.04  | -    | 0.20 | 0.20 | 0.15 | 0.06 | 0.008 | -     | 0.025 | -      |
| 56484                            | ASTM A1011   | SS Grade 55  | Stan. | 0.25 | 1.35 | 0.035 | 0.04  | -    | 0.20 | 0.20 | 0.15 | 0.06 | 0.008 | -     | 0.025 | -      |
| 56480                            | ASTM A1011   | SS Grade 55  | Stan. | 0.25 | 1.35 | 0.035 | 0.04  | -    | 0.20 | 0.20 | 0.15 | 0.06 | 0.008 | -     | 0.025 | -      |

- 1) For each reduction of 0.01 % for carbon, an increase of 0.06 % for manganese is permitted, up to a maximum of 1.50 %.
- 2) When copper is specified, a minimum of 0.20 % is required.
- 3) Ti/ N is max. 3.4.

| Mechanical Properties |            |              |         |                   |           |           |       |                        |  |  |  |
|-----------------------|------------|--------------|---------|-------------------|-----------|-----------|-------|------------------------|--|--|--|
|                       |            |              | Re      | Rm <sup>(1)</sup> |           | A(%)      |       | Bending <sup>(2)</sup> |  |  |  |
| Colakoglu             | C4         | 0!!          | (min.)  | (min.)            | A         | 50        | A200  | (long.; 90°)           |  |  |  |
| Quality id            | Standard   | Quality      | N/m     | m²                | 2.5≤T≤6.0 | 1.6≤T≤2.5 | T≤6.0 | mrb                    |  |  |  |
|                       |            |              |         |                   | min.      | min.      | min.  | (d=thickness)          |  |  |  |
| 56340                 | ASTM A1011 | CS Type B    | 205-340 | -                 | -         | -         | -     | -                      |  |  |  |
| 56360                 | ASTM A1011 | SS Grade 33  | 230     | 360               | 23        | 22        | 18    | 1d                     |  |  |  |
| 56365                 | ASTM A1011 | SS 36 Type 1 | 250     | 365               | 22        | 21        | 17    | 1.5d                   |  |  |  |
| 56400                 | ASTM A1011 | SS 36 Type 2 | 250     | 400 - 550         | 21        | 20        | 16    | 2d                     |  |  |  |
| 56454                 | ASTM A1011 | SS Grade 50  | 340     | 450               | 17        | 16        | 12    | 2.5d                   |  |  |  |
| 56450                 | ASTM A1011 | SS Grade 50  | 340     | 450               | 17        | 16        | 12    | 2.5d                   |  |  |  |
| 56484                 | ASTM A1011 | SS Grade 55  | 380     | 480               | 15        | 14        | 10    | 3d                     |  |  |  |
| 56480                 | ASTM A1011 | SS Grade 55  | 380     | 480               | 15        | 14        | 10    | 3d                     |  |  |  |

# Explanations

- Tensile tests are applied to "Longitudinal" test samples.
   Bending tests are carried out if it is customer's request in order.

|                      | HOT ROLLED GENERAL STRUCTURAL STEELS SUITABLE FOR COLD FORMING & BENDING |              |       |           |         |          |                            |                   |      |      |      |       |       |        |       |
|----------------------|--|--------------|-------|-----------|---------|----------|----------------------------|-------------------|------|------|------|-------|-------|--------|-------|
|                      |  |              |       | Sta       | andard: | ASTM A1  | 1 <b>01</b> 8 / <b>A</b> 1 | 018M-0            | 7    |      |      |       |       |        |       |
|                      |  |              |       |           | Chem    | ical Con | position                   | ı (%)             |      |      |      |       |       |        |       |
| Colakoglu            | Standard <sup>(2)</sup>  | Quality      |       | C         | Mn      | P        | S                          | Cu <sup>(2)</sup> | Ni   | Cr   | Мо   | V     | Nb    | Ti (3) | N     |
| Quality id           | Stallualu  | Quality      |       | max.      | max.    | max.     | max.                       | max.              | max. | max. | max. | max.  | max.  | max.   | max.  |
| 56830                | ASTM A1018   | CS Type B    | Stan. | 0.02-0.15 | 0.60    | 0.030    | 0.035                      | 0.20              | 0.20 | 0.15 | 0.06 | 0.008 | 0.008 | 0.025  | -     |
| 56833                | ASTM A1018   | SS Grade 33  | Stan. | 0.25      | 1.50    | 0.035    | 0.040                      | 0.20              | 0.12 | 0.10 | 0.02 | 0.008 | 0.008 | 0.025  | 0.014 |
| 56836                | ASTM A1018   | SS 36 Type 1 | Stan. | 0.25      | 1.50    | 0.035    | 0.040                      | 0.20              | 0.20 | 0.15 | 0.06 | 0.008 | 0.008 | 0.025  | 0.014 |
| 56837 <sup>(1)</sup> | ASTM A1018   | SS 36 Type 2 | Stan  | 0.25      | 1 35    | 0.035    | 0.040                      | 0.20              | 0.20 | 0.15 | 0.06 | 0.008 | 0.008 | 0.025  | 0.014 |

**56840** ASTM A1018 **SS Grade 40** Stan. 0.25 1.50 0.035 0.04 0.20 0.12 0.10 0.02 0.008 0.008 0.025 0.014

#### Explanation

1) Mn % is 0.80-1.20 for 20 mm and thicker strips. For each reduction of 0.01 % for carbon, an increase of 0.06 % for manganese is permitted, up to a maximum of 1.35.

2) When copper is specified, a minimum of 0.20  $\stackrel{\cdot}{\%}$  is required.

3) Ti/ N is max. 3.4.

|            | Mechanical Properties |              |        |         |      |          |          |                       |                        |  |  |  |
|------------|-----------------------|--------------|--------|---------|------|----------|----------|-----------------------|------------------------|--|--|--|
|            |                       |              | Re     | Rm      |      | A(%)     | Impact ( | long.) <sup>(2)</sup> | Bending <sup>(2)</sup> |  |  |  |
| Colakoglu  | Standard Qua          |              | (min.) | (min.)  | A50  | A200     | <b>T</b> | ΚV <sub>c</sub>       | (trans.; 180°)         |  |  |  |
| Quality id | Standard              | Quality      | N/m    | m²      | T≤25 | 4.5≤T≤25 | Temp.    | min.                  | mrb                    |  |  |  |
|            |                       |              |        |         | min. | min.     | ۰c       | J                     | (d=thickness)          |  |  |  |
| 56830      | ASTM A1018            | CS Type B    |        |         |      |          |          |                       |                        |  |  |  |
| 56833      | ASTM A1018            | SS Grade 33  | 230    | 360     | 22   | 16       | +20      | 40                    | 1d                     |  |  |  |
| 56836      | ASTM A1018            | SS 36 Type 1 | 250    | 365     | 21   | 15       | +20      | 40                    | 1.5d                   |  |  |  |
| 56837      | ASTM A1018            | SS 36 Type 2 | 250    | 400-550 | 21   | 18       | +20      | 40                    | 2d                     |  |  |  |
| 56840      | ASTM A1018            | SS Grade 40  | 275    | 380     | 19   | 14       | +20      | 40                    | 2d                     |  |  |  |

# Explanations

1) Tensile tests are applied to "Transversal" test samples.

2) Impact and Bending tests are carried out if it is customer's request in order.

|            | MICRO ALLOYED STEELS SUITABLE FOR COLD FORMING & BENDING |                           |       |      |      |      |       |      |      |      |      |       |       |       |
|------------|--|---------------------------|-------|------|------|------|-------|------|------|------|------|-------|-------|-------|
|            | Standard: ASTM A1018 / A1018M-07                         |                           |       |      |      |      |       |      |      |      |      |       |       |       |
|            | Chemical Composition (%)                                 |                           |       |      |      |      |       |      |      |      |      |       |       |       |
| Colakoglu  | Standard   | Quality                   |       | C    | Mn   | P    | S     | Cu   | Ni   | Cr   | Мо   | V     | Nb    | Ti    |
| Quality id | Stalluaru  | Quality                   |       | max. | max. | max. | max.  | max. | max. | max. | max. | min.  | min.  | min.  |
| 56845      | ASTM A1018<br>ASTM A1018M                                | HSLAS<br>Grade 45 Class 1 | Stan. | 0.22 | 1.50 | 0.04 | 0.04  | 0.20 | 0.20 | 0.15 | 0.06 | 0.005 | 0.005 | 0.005 |
| 56850      | ASTM A1018<br>ASTM A1018M                                | HSLAS<br>Grade 50 Class 1 | Stan. | 0.23 | 1.50 | 0.04 | 0.04  | 0.20 | 0.20 | 0.15 | 0.06 | 0.005 | 0.005 | 0.005 |
| 56855      | ASTM A1018<br>ASTM A1018M                                | HSLAS<br>Grade 55 Class 1 | Stan. | 0.25 | 1.50 | 0.04 | 0.04  | 0.20 | 0.20 | 0.15 | 0.06 | 0.005 | 0.005 | 0.005 |
| 56955      | ASTM A1018<br>ASTM A1018M                                | HSLAS<br>Grade 55 Class 2 | Stan. | 0.15 | 1.50 | 0.04 | 0.04  | 0.20 | 0.20 | 0.15 | 0.06 | 0.005 | 0.005 | 0.005 |
| 56960      | ASTM A1018<br>ASTM A1018M                                | HSLAS<br>Grade 60 Class 2 | Stan. | 0.15 | 1.50 | 0.04 | 0.04  | 0.20 | 0.20 | 0.15 | 0.06 | 0.005 | 0.005 | 0.005 |
| 56965      | ASTM A1018<br>ASTM A1018M                                | HSLAS<br>Grade 65 Class 2 | Stan. | 0.15 | 1.50 | 0.04 | 0.04  | 0.20 | 0.20 | 0.15 | 0.06 | 0.005 | 0.005 | 0.005 |
| 56970      | ASTM A1018<br>ASTM A1018M                                | HSLAS<br>Grade 70 Class 2 | Stan. | 0.15 | 1.65 | 0.04 | 0.040 | 0.20 | 0.20 | 0.15 | 0.16 | 0.005 | 0.005 | 0.005 |

|            | Mechanical Properties     |                              |        |                   |              |      |                        |  |  |  |  |  |
|------------|---------------------------|------------------------------|--------|-------------------|--------------|------|------------------------|--|--|--|--|--|
|            |                           |                              | Re     | Rm <sup>(1)</sup> | A(9          | 6)   | Bending <sup>(2)</sup> |  |  |  |  |  |
| Colakoglu  | Standard                  | Quality                      | (min.) | (min.)            | A50          | A200 | (trans.; 90°)          |  |  |  |  |  |
| Quality id | Stalluaru                 | Quality                      | N/mm²  |                   | T≤25 4.5≤T≤2 |      | mrb                    |  |  |  |  |  |
|            |                           |                              |        |                   | min.         | min. | (d=thickness)          |  |  |  |  |  |
| 56845      | ASTM A1018<br>ASTM A1018M | HSLAS<br>Grade 45 Class 1    | 310    | 410               | 22           | 17   | 1.5d                   |  |  |  |  |  |
| 56850      | ASTM A1018<br>ASTM A1018M | HSLAS<br>Grade 50 Class 1    | 340    | 450               | 20           | 16   | 2d                     |  |  |  |  |  |
| 56855      | ASTM A1018<br>ASTM A1018M | HSLAS<br>Grade 55 Class 1    | 380    | 480               | 18           | 15   | 2d                     |  |  |  |  |  |
| 56955      | ASTM A1018<br>ASTM A1018M | HSLAS<br>Grade 55 Class 2    | 380    | 450               | 18           | 15   | 2d                     |  |  |  |  |  |
| 56960      | ASTM A1018<br>ASTM A1018M | HSLAS<br>Grade 60 Class 2    | 410    | 480               | 16           | 14   | 2d                     |  |  |  |  |  |
| 56965      | ASTM A1018<br>ASTM A1018M | HSLAS<br>Grade 65<br>Class 2 | 450    | 520               | 14           | 12   | 2.5d                   |  |  |  |  |  |
| 56970      | ASTM A1018<br>ASTM A1018M | HSLAS<br>Grade 70 Class 2    | 480    | 550               | 12           | 10   | 3d                     |  |  |  |  |  |

# Explanations

1) Tensile tests are applied to "Transversal" test samples.

2) Bending tests are carried out if it is customer's request in order.

|            | HIGH STRENGTH LOW ALLOW STRUCTURAL STEELS   |          |          |      |           |      |      |      |                   |           |      |  |
|------------|---|----------|----------|------|-----------|------|------|------|-------------------|-----------|------|--|
|            | Standard: ASTM A572 -2007   |          |          |      |           |      |      |      |                   |           |      |  |
|            | Chemical Composition (%)  |          |          |      |           |      |      |      |                   |           |      |  |
| Colakoglu  | Ctondord  | Ouglitu  |          | C    | Mn        | P    | S    | Si   | Cu <sup>(2)</sup> | V         | Nb   |  |
| Quality id | Standard  | Quality  |          | max. | max.      | max. | max. | max. | min.              |           | max. |  |
| 56550      | <b>56550</b> ASTM A572 <b>Grade 50</b> Standard 0.23 0.8-1.35 0.04 0.05 0.40 0.20 0.01-0.15 0.005 |          |          |      |           |      |      |      |                   |           |      |  |
| 56555      | ASTM A572   | Grade 55 | Standard | 0.25 | 0.08-1.35 | 0.04 | 0.05 | 0.40 | 0.20              | 0.01-0.15 | -    |  |

#### Explanations

1) For each reduction of 0.01 % for carbon, an increase of 0.06 % for manganese is permitted, up to a maximum of 1.60.

2) When copper is specified, a minimum of 0.20 % is required.

|            |           |          | Mechanica | al Propertie      | s    |      |               |             |  |  |
|------------|-----------|----------|-----------|-------------------|------|------|---------------|-------------|--|--|
|            |           |          | Re        | Rm <sup>(1)</sup> | A(   | %)   | Impact (long. |             |  |  |
| Colakoglu  | Standard  | Ouglitus | (min.)    | (min.)            | A50  | A200 | T             | <b>KV</b> c |  |  |
| Quality id | Standard  | Quality  | N/r       | nm²               | min. | min. | Temp.         | min.        |  |  |
|            |           |          |           |                   |      |      | ۰c            | J           |  |  |
| 56550      | ASTM A572 | Grade 50 | 345       | 450               | 21   | 18   | +20           | 27          |  |  |
| 56555      | ASTM A572 | Grade 55 | 380       | 485               | 20   | 17   | +20           | 27          |  |  |

# Explanations

1) Tensile tests are applied to "Transversal" test samples.

2) Impact tests are carried out if it is customer's request in order.

|                          | UNALLOYED GENERAL STRUCTURAL STEELS |           |          |             |   |      |       |       |      |                   |                  |                    |
|--------------------------|-------------------------------------|-----------|----------|-------------|---|------|-------|-------|------|-------------------|------------------|--------------------|
|                          | Standard: DIN EN 10025-Part 2-2004  |           |          |             |   |      |       |       |      |                   |                  |                    |
| Chemical Composition (%) |                                     |           |          |             |   |      |       |       |      |                   |                  |                    |
| Colakoglu                | Ctondond                            | Ouglitu   |          | <b>C</b> (ı | nax.)   | Mn   | P     | S     | Cu   | AI <sup>(1)</sup> | N <sup>(1)</sup> | Ceq <sup>(2)</sup> |
| Quality id               | Standard                            | Quality   |          | d≤16        | 16 <d≤40< th=""><th>max.</th><th>max.</th><th>max.</th><th>max.</th><th>min.</th><th>max.</th><th>max.</th></d≤40<> | max. | max.  | max.  | max. | min.              | max.             | max.               |
| 51235                    | DIN EN 10025-2                      | S235JR    | Standard | 0.17        | 0.17  | 1.4  | 0.035 | 0.035 | 0.55 | _                 | 0.012            | 0.35               |
| 51236                    | DIN EN 10025-2                      | S235JR+N  | Standard | 0.17        | 0.17  | 1.4  | 0.025 | 0.025 | 0.55 | 0.200             | _                | 0.35               |
| 55235                    | DIN EN 10025-2                      | S235JR+Cu | Standard | 0.17        | 0.17  | 1.4  | 0.035 | 0.035 | 0.55 | _                 | 0.012            | 0.35               |
| 52235                    | DIN EN 10025-2                      | S235J2+N  | Standard | 0.17        | 0.17  | 1.4  | 0.025 | 0.025 | 0.55 | 0.020             | _                |                    |
| 51275                    | DIN EN 10025-2                      | S275JR    | Standard | 0.21        | 0.21  | 1.5  | 0.035 | 0.035 | 0.55 | _                 | 0.012            | 0.40               |
| 52275                    | DIN EN 10025-2                      | S275J2+N  | Standard | 0.18        | 0.18  | 1.5  | 0.025 | 0.025 | 0.55 | 0.020             | _                | 0.40               |

# Explanations

- 1) The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of 0.020 %.
- 2) Ceq is calculated by %CE (IIW) = C+Mn/6+(C+Mo+V)/5+(Ni+Cr)/15 formula.

|            |                   |           |        |  | Me        | chanical Pr      | operties   |   |  |   |        |              |        |
|------------|-------------------|-----------|--------|--|-----------|------------------|--|---|--|---|--------|--------------|--------|
|            |                   |           |        | Re   | Rr        | n <sup>(4)</sup> |  | A(%), min.  |  |   |        | Imp<br>(long |        |
|            |                   |           | N      | l/mm²  | N/r       | nm²              |  | А   | 80   |   | A5     |              | KVc    |
|            |                   |           | min.   | min.   |           |                  |  | d :   | thickness, n   | nm  |        | Temp.        | min.   |
| Colakoglu  | Can               | Ouglitu   | d:thic | kness, mm  | d : thick | ness, mm         |  |   |  |   |        |              | IIIII. |
| Quality id | Stan.             | Quality   | ≤16    | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;40</th><th>1<d≤1.5< th=""><th>1.5<d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰۲</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<></th></d≤1.5<></th></d≤40<> | <3        | 3≤d<40           | 1 <d≤1.5< th=""><th>1.5<d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰۲</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<></th></d≤1.5<> | 1.5 <d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰۲</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<> | 2 <d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰۲</th><th>J</th></d≤3<></th></d≤2.5<> | 2.5 <d≤3< th=""><th>3≤d≤40</th><th>۰۲</th><th>J</th></d≤3<> | 3≤d≤40 | ۰۲           | J      |
| 51235      | DIN EN<br>10025-2 | S235JR    | 235    | 225  | 360 - 510 | 360 - 510        | 16   | 17  | 18   | 19  | 24     | +20          | 27(3)  |
| 51236      | DIN EN<br>10025-2 | S235JR+N  | 235    | 225  | 360 - 510 | 360 - 510        | 16   | 17  | 18   | 19  | 24     | +20          | 27     |
| 55235      | DIN EN<br>10025-2 | S235JR+Cu | 235    | 225  | 360 - 510 | 360 - 510        | 16   | 17  | 18   | 19  | 24     | +20          | 27     |
| 52235      | DIN EN<br>10025-2 | S235J2+N  | 235    | 225  | 360 - 510 | 360 - 510        | 16   | 17  | 18   | 19  | 24     | -20          | 27     |
| 51275      | DIN EN<br>10025-2 | S275JR    | 275    | 265  | 430 - 580 | 410 - 560        | 14   | 15  | 16   | 17  | 21     | +20          | 27(3)  |
| 52275      | DIN EN<br>10025-2 | S275J2+N  | 275    | 265  | 430 - 580 | 410 - 560        | 14   | 15  | 16   | 17  | 21     | -20          | 27     |

# Explanations

- 1) Grades with N code can be normalized and/or hot formed by customers.
- 2) Impact tests are not required if nominal thickness is lesser than 6 mm.
- 3) Impact tests are carried out if it is customer's request in order.
- 4) Tensile tests are applied to "Transversal" test samples.

# UNALLOYED STRUCTURAL STEELS SUITABLE FOR HOT FORMING (SRM PIPE PRODUCTION), **COLD ROLLING, NORMALIZING & GALVANIZING**

# Standard: DIN EN 10025-Part 2-2004

|            |                   |                                 |       | Chemical | Compositio  | n (%) |       |       |      |                   |                  |                    |
|------------|-------------------|---------------------------------|-------|----------|---|-------|-------|-------|------|-------------------|------------------|--------------------|
| Colakoglu  | Standard          | Quality                         |       | C(       | max.)   | Mn    | P     | S     | Cu   | AI <sup>(1)</sup> | N <sup>(1)</sup> | Ceq <sup>(2)</sup> |
| Quality id | Stalluaru         | Quanty                          |       | d≤16     | 16 <d≤40< th=""><th>max.</th><th>max.</th><th>max.</th><th>max.</th><th>min.</th><th>max.</th><th>max.</th></d≤40<> | max.  | max.  | max.  | max. | min.              | max.             | max.               |
| 41235      | DIN EN<br>10025-2 | S235JR+N<br>with max. 0.03 % Si | Stan. | 0.17     | 0.17  | 1.4   | 0.035 | 0.035 | 0.55 | _                 | 0.012            | 0.35               |
| 42235      | DIN EN<br>10025-2 | S235JR+N                        | Stan. | 0.17     | 0.17  | 1.4   | 0.025 | 0.025 | 0.55 | 0.020             | _                | 0.35               |
| 41275      | DIN EN<br>10025-2 | S275JR+N<br>with max. 0.03 % Si | Stan. | 0.21     | 0.21  | 1.5   | 0.035 | 0.035 | 0.55 | _                 | 0.012            | 0.40               |
| 42275      | DIN EN<br>10025-2 | S275J2+N<br>with max. 0.03 % Si | Stan. | 0.18     | 0.18  | 1.5   | 0.025 | 0.025 | 0.55 | _                 | 0.012            | 0.40               |

1) The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of  $0.020\,\%$ .

2) Ceq is calculated by %CE (IIW) = C + Mn/6 + (C + Mo + V)/5 + (Ni + Cr)/15 formula.

|            |                   | Mechanical F                                | Propertie | s  |            |                  |
|------------|-------------------|---|-----------|--|------------|------------------|
|            |                   |   |           | Re   | R          | m <sup>(2)</sup> |
|            |                   |   |           | N/r  | nm²        |                  |
|            |                   |   | min.      | min.   | J . AL! J. |                  |
| Colakoglu  | Standard          | Oalitu                                      | d:thi     | ckness, mm   | a : thick  | ness, mm         |
| Quality id | Standard          | Quality                                     | ≤16       | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;40</th></d≤40<> | <3         | 3≤d<40           |
| 41235      | DIN EN<br>10025-2 | S235JR+N <sup>(1)</sup> with max. 0.03 % Si | 235       | 225  | 360 - 510  | 360 - 510        |
| 42235      | DIN EN<br>10025-2 | S235JR+N                                    | 235       | 225  | 360 - 510  | 360 - 510        |
| 41275      | DIN EN<br>10025-2 | S275JR+N <sup>(1)</sup> with max. 0.03 % Si | 275       | 265  | 430-580    | 410-560          |
| 42275      | DIN EN<br>10025-2 | S275J2+N <sup>(1)</sup> with max. 0.03 % Si | 275       | 265  | 430-580    | 410-560          |

|            |                   |   | Mecha  | nical Propert   | ies  |   |        |     |       |  |  |
|------------|-------------------|---|--|---|--|---|--------|-----|-------|--|--|
|            |                   |   |  |   | Impact (long.) <sup>(3)</sup>  |   |        |     |       |  |  |
|            |                   |   |  | A5  |  | KV <sub>c</sub>   |        |     |       |  |  |
|            |                   |   |  | d : thickness, mm   |  |   |        |     |       |  |  |
| Colakoglu  | Standard          | Quality                                     |  |   |  | min.  |        |     |       |  |  |
| Quality id | Stallualu         | Quality                                     | 1 <d≤1.5< th=""><th>1.5<d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<></th></d≤1.5<> | 1.5 <d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<> | 2 <d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<></th></d≤2.5<> | 2.5 <d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<> | 3≤d≤40 | ۰C  | J     |  |  |
| 41235      | DIN EN<br>10025-2 | S235JR+N <sup>(1)</sup> with max. 0.03 % Si | 16   | 17  | 18   | 19  | 24     | +20 | 27(4) |  |  |
| 42235      | DIN EN<br>10025-2 | S235JR+N                                    | 16   | 17  | 18   | 19  | 24     | -20 | 27    |  |  |
| 41275      | DIN EN<br>10025-2 | S275JR+N <sup>(1)</sup> with max. 0.03 % Si | 14   | 15  | 16   | 17  | 21     | +20 | 27(4) |  |  |
| 42275      | DIN EN<br>10025-2 | S275J2+N <sup>(1)</sup> with max. 0.03 % Si | 14   | 15  | 16   | 17  | 21     | -20 | 27    |  |  |

# Explanations

1) Grades with N code can be normalized and/or hot formed by customers.

2) Tensile tests are applied to "Transversal" test samples.

3) Impact tests are not carried out if nominal thickness is lesser than 6 mm.

4) Impact tests are carried out if it is customer's request in order.

|            | UNALLOYED STRAP STEELS FOR COLD ROLLING & GALVANIZING  Standard: DIN EN 10025-Part 2-2004 |  |       |      |  |      |      |       |       |      |                   |                  |                    |
|------------|---|--|-------|------|--|------|------|-------|-------|------|-------------------|------------------|--------------------|
|            | Chemical Composition (%)  |  |       |      |  |      |      |       |       |      |                   |                  |                    |
| Colakoglu  | Standard  | Overliter                                  |       | C    | (max.)   | Mn   | Si   | P     | S     | Cu   | AI <sup>(1)</sup> | N <sup>(1)</sup> | Ceq <sup>(2)</sup> |
| Quality id | Standard  | Quality                                    |       | d≤16 | 16 <d≤40< th=""><th>max.</th><th>max.</th><th>max.</th><th>max.</th><th>max.</th><th>min.</th><th>max.</th><th>max.</th></d≤40<> | max. | max. | max.  | max.  | max. | min.              | max.             | max.               |
| 51238      | DIN EN<br>10025-2   | S235JR<br>Strap steels                     | Stan. | 0.17 | 0.17   | 1.4  | _    | 0.035 | 0.035 | 0.55 | _                 | 0.012            | 0.35               |
| 54238      | DIN EN<br>10025-2   | S235JR with max. 0.03 % Si<br>Strap steels | Stan. | 0.21 | 0.21   | 1.5  | _    | 0.035 | 0.035 | 0.55 | _                 | 0.012            | 0.35               |

- 1) The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of 0.020 %.
  2) Ceq is calculated by %CE (IIW) = C+Mn/6+(C+Mo+V)/5+(Ni+Cr)/15 formula.

|            | Mechanical Properties |  |                   |  |                   |           |  |  |  |  |  |  |
|------------|-----------------------|--|-------------------|--|-------------------|-----------|--|--|--|--|--|--|
|            |                       |  |                   | Re   | Rm <sup>(1</sup>  | )         |  |  |  |  |  |  |
|            |                       |  | N,                | /mm²   | N/mm²             |           |  |  |  |  |  |  |
|            |                       |  | min.              | min. min.  |                   |           |  |  |  |  |  |  |
| Colakoglu  | Ctdd                  | 0  | d : thickness, mm |  | d : thickness, mm |           |  |  |  |  |  |  |
| Quality id | Standard              | Quality                                    | ≤16               | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;40</th></d≤40<> | <3                | 3≤d<40    |  |  |  |  |  |  |
| 51238      | DIN EN<br>10025-2     | S235JR<br>Strap steels                     | 235               | 225  | 360 - 510         | 360 - 510 |  |  |  |  |  |  |
| 54238      | DIN EN<br>10025-2     | S235JR with max. 0.03 % Si<br>Strap steels | 235               | 225  | 360 - 510         | 360 - 510 |  |  |  |  |  |  |

| Mechanical Properties |                   |  |  |   |  |   |        |     |                   |  |
|-----------------------|-------------------|--|--|---|--|---|--------|-----|-------------------|--|
|                       |                   |  |  | Impact (long.) <sup>(2)</sup>   |  |   |        |     |                   |  |
|                       |                   |  |  | A5  |  | <b>KV</b> <sub>C</sub>                                      |        |     |                   |  |
|                       |                   |  |  |   | Temp.  | min.  |        |     |                   |  |
| Colakoglu             | Standard          | Ouglitu                                    |  |   |  |   |        |     | min.              |  |
| Quality id            | Standard          | Quality                                    | 1 <d≤1.5< th=""><th>1.5<d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<></th></d≤1.5<> | 1.5 <d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<> | 2 <d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<></th></d≤2.5<> | 2.5 <d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<> | 3≤d≤40 | ۰C  | J                 |  |
| 51238                 | DIN EN<br>10025-2 | S235JR<br>Strap steels                     | 16   | 17  | 18   | 19  | 24     | +20 | 27 <sup>(3)</sup> |  |
| 54238                 | DIN EN<br>10025-2 | S235JR with max. 0.03 % Si<br>Strap steels | 16   | 17  | 18   | 19  | 24     | +20 | 27(3)             |  |

- 1) Tensile tests are applied to "Transversal" test samples.
- 2) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 3) Impact tests are carried out if it is customer's request in order.

|            | UNALLOYED GENERAL STRUCTURAL STEELS |             |       |          |   |          |      |       |       |      |                   |                  |                    |  |
|------------|-------------------------------------|-------------|-------|----------|---|----------|------|-------|-------|------|-------------------|------------------|--------------------|--|
|            |                                     |             | Sta   | ndard: D | IN EN 10025   | -Part 2- | 2004 |       |       |      |                   |                  |                    |  |
|            | Chemical Composition (%)            |             |       |          |   |          |      |       |       |      |                   |                  |                    |  |
| Colakoglu  | Standard                            | Ouslitu     |       | C        | (max.)  | Si       | Mn   | P     | S     | Cu   | AI <sup>(1)</sup> | N <sup>(1)</sup> | Ceq <sup>(2)</sup> |  |
| Quality id | Stanuaru                            | Quality     |       | d≤16     | 16 <d≤40< th=""><th>max.</th><th>max.</th><th>max.</th><th>max.</th><th>max</th><th>min.</th><th>max.</th><th>max.</th></d≤40<> | max.     | max. | max.  | max.  | max  | min.              | max.             | max.               |  |
| 50355      | DIN EN 10025-2                      | S355J0      | Stan. | 0.20     | 0.20  | 0.55     | 1.6  | 0.030 | 0.030 | 0.55 | _                 | 0.012            | 0.45               |  |
| 51355      | DIN EN 10025-2                      | S355JR      | Stan. | 0.24     | 0.24  | 0.55     | 1.6  | 0.035 | 0.035 | 0.55 | _                 | 0.012            | 0.45               |  |
| 53355      | DIN EN 10025-2                      | S355J2      | Stan. | 0.20     | 0.20  | 0.55     | 1.6  | 0.025 | 0.025 | 0.55 | _                 | _                | 0.45               |  |
| 52355      | DIN EN 10025-2                      | S355J2+N    | Stan. | 0.20     | 0.20  | 0.55     | 1.6  | 0.025 | 0.025 | 0.55 | 0.020             | _                | 0.45               |  |
| 55355      | DIN EN 10025-2                      | S355J2+N+Cu | Stan. | 0.20     | 0.20  | 0.55     | 1.6  | 0.025 | 0.025 | 0.55 | _                 | _                | 0.45               |  |

1) The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of 0.020 %.

2) Ceq is calculated by %CE (IIW) = C + Mn/6 + (C + Mo + V)/5 + (Ni + Cr)/15 formula.

|            | Mechanical Properties |                            |           |  |                   |           |  |  |  |  |  |  |  |
|------------|-----------------------|----------------------------|-----------|--|-------------------|-----------|--|--|--|--|--|--|--|
|            |                       |                            |           | Re   | Rm <sup>(2)</sup> |           |  |  |  |  |  |  |  |
|            |                       |                            | N/        | mm²  | N/mm              | 2         |  |  |  |  |  |  |  |
|            |                       |                            | min.      | min.   | J. 41. J          |           |  |  |  |  |  |  |  |
| Colakoglu  | C+                    | 0                          | d : thick | iness, mm  | d : thickness, mm |           |  |  |  |  |  |  |  |
| Quality id | Standard              | Quality                    | ≤16       | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;40</th></d≤40<> | <3                | 3≤d<40    |  |  |  |  |  |  |  |
| 50355      | DIN EN 10025-2        | S355J0                     | 355       | 345  | 510 - 680         | 470 - 630 |  |  |  |  |  |  |  |
| 51355      | DIN EN 10025-2        | S355JR                     | 355       | 345  | 510 - 680         | 470 - 630 |  |  |  |  |  |  |  |
| 53355      | DIN EN 10025-2        | S355J2                     | 355       | 345  | 510 - 680         | 470 - 630 |  |  |  |  |  |  |  |
| 52355      | DIN EN 10025-2        | S355J2+N                   | 355       | 345  | 510 - 680         | 470 - 630 |  |  |  |  |  |  |  |
| 55355      | DIN EN 10025-2        | S355J2+N+Cu <sup>(1)</sup> | 355       | 345  | 510-680           | 470-630   |  |  |  |  |  |  |  |

|            | Mechanical Properties |                            |  |   |  |   |        |        |                       |  |  |  |
|------------|-----------------------|----------------------------|--|---|--|---|--------|--------|-----------------------|--|--|--|
|            |                       |                            |  |   | A(%), min.   |   |        | Impact | (long) <sup>(3)</sup> |  |  |  |
|            |                       |                            |  | A   | 80   |   | A5     |        | ΚV <sub>c</sub>       |  |  |  |
|            |                       |                            |  | d   |  | Temp.   |        |        |                       |  |  |  |
| Colakoglu  | C4                    | 0                          |  |   |  |   |        |        | min.                  |  |  |  |
| Quality id | Standard              | Quality                    | 1 <d≤1.5< th=""><th>1.5<d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰(</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<></th></d≤1.5<> | 1.5 <d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰(</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<> | 2 <d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰(</th><th>J</th></d≤3<></th></d≤2.5<> | 2.5 <d≤3< th=""><th>3≤d≤40</th><th>۰(</th><th>J</th></d≤3<> | 3≤d≤40 | ۰(     | J                     |  |  |  |
| 50355      | DIN EN 10025-2        | S355J0                     | 13   | 14  | 15   | 16  | 20     | 0      | 27(4)                 |  |  |  |
| 51355      | DIN EN 10025-2        | S355JR                     | 13   | 14  | 15   | 16  | 20     | +20    | 27                    |  |  |  |
| 53355      | DIN EN 10025-2        | S355J2                     | 13   | 14  | 15   | 16  | 20     | -20    | 27(4)                 |  |  |  |
| 52355      | DIN EN 10025-2        | S355J2+N                   | 13   | 14  | 15   | 16  | 20     | -20    | 27                    |  |  |  |
| 55355      | DIN EN 10025-2        | S355J2+N+Cu <sup>(1)</sup> | 13   | 14  | 20   | -20   | 27(4)  |        |                       |  |  |  |

#### Explanations

- 1) Grades with N code can be normalized and/or hot formed by customers.
- 2) Tensile tests are applied to "Transversal" test samples.
- 3) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 4) Impact tests are carried out if it is customer's request in order.

| UNALLOYED GENERAL STRUCTURAL STEELS (SUITABLE TO CLASS 1 TYPE GALVANIZING STANDARD) |                |                                 |       |            |  |          |      |       |       |      |                   |                  |                    |
|---|----------------|---------------------------------|-------|------------|--|----------|------|-------|-------|------|-------------------|------------------|--------------------|
|   |                |                                 | Sta   | ndard: DIN | N EN 10025 F   | Part 2-2 | 004  |       |       |      |                   |                  |                    |
|   |                |                                 |       | Chemica    | l Compositio   | on (%)   |      |       |       |      |                   |                  |                    |
| Colakoglu   | Standard       | Quality                         |       | C (r       | nax.)  | Si       | Mn   | P     | S     | Cu   | AI <sup>(1)</sup> | N <sup>(1)</sup> | Ceq <sup>(2)</sup> |
| Quality id  | Stalluaru      | Quality                         |       | d≤16       | 16 <d≤40< th=""><th>max.</th><th>max.</th><th>max.</th><th>max.</th><th>max.</th><th>min.</th><th>max.</th><th>max.</th></d≤40<> | max.     | max. | max.  | max.  | max. | min.              | max.             | max.               |
| 54355   | DIN EN 10025-2 | S355JR with max. 0.03 % Si      | Stan. | 0.24       | 0.24   | 0.55     | 1.6  | 0.035 | 0.035 | 0.55 | _                 | 0.012            | 0.45               |
| 54356   | DIN EN 10025-2 | \$355J0 with max. 0.03 % Si     | Stan. | 0.20       | 0.20   | 0.55     | 1.6  | 0.030 | 0.030 | 0.55 | _                 | 0.012            | 0.45               |
| 54358   | DIN EN 10025-2 | S355J2 with max. 0.03 % Si      | Stan. | 0.20       | 0.20   | 0.55     | 1.6  | 0.025 | 0.025 | 0.55 | _                 | _                | 0.45               |
| 54357   | DIN EN 10025-2 | S355J2+N with<br>max. 0.03 % Si | Stan. | 0.20       | 0.20   | 0.55     | 1.6  | 0.025 | 0.025 | 0.55 | _                 | _                | 0.45               |

#### Explanations

1) The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of 0.020 %.

2) Ceq is calculated by %CE (IIW) = C + Mn/6 + (C + Mo + V)/5 + (Ni + Cr)/15 formula.

max. 0.03 % Si

|            | Mechanical Properties |                              |              |  |            |         |  |  |  |  |  |  |
|------------|-----------------------|------------------------------|--------------|--|------------|---------|--|--|--|--|--|--|
|            |                       |                              | Re           |  | Rm         | (2)     |  |  |  |  |  |  |
|            |                       |                              |              | N/mn   | n²         |         |  |  |  |  |  |  |
|            |                       |                              | min.         | min.   |            |         |  |  |  |  |  |  |
| Colakoglu  | Standard              | Quality                      | d : thicknes | s, mm  | d : thickn | ess, mm |  |  |  |  |  |  |
| Quality id | Stalluaru             | Quality                      | ≤16          | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;40</th></d≤40<> | <3         | 3≤d<40  |  |  |  |  |  |  |
| 54355      | DIN EN 10025-2        | S355JR with max. 0.03 % Si   | 355          | 345  | 510-680    | 470-630 |  |  |  |  |  |  |
| 54356      | DIN EN 10025-2        | \$355J0 with max. 0.03 % \$i | 355          | 345  | 510-680    | 470-630 |  |  |  |  |  |  |
| 54358      | DIN EN 10025-2        | S355J2 with max. 0.03 % Si   | 355          | 345  | 510-680    | 470-630 |  |  |  |  |  |  |
| 54357      | DIN EN 10025-2        | S355J2+N with max. 0.03 % Si | 355          | 345  | 510-680    | 470-630 |  |  |  |  |  |  |

|            | Mechanical Properties |                               |  |   |  |   |        |        |             |  |  |  |  |
|------------|-----------------------|-------------------------------|--|---|--|---|--------|--------|-------------|--|--|--|--|
|            |                       |                               |  |   | A(%), min.   |   |        | Impact | (long)³     |  |  |  |  |
|            |                       |                               |  | A   | 80   |   | A5     |        | <b>KV</b> c |  |  |  |  |
| Colakoglu  |                       | d : thickness, mm             |  |   |  |   |        |        | min.        |  |  |  |  |
| Quality id | Standard              | Quality                       | 1 <d≤1.5< th=""><th>1.5<d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰С</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<></th></d≤1.5<> | 1.5 <d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰С</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<> | 2 <d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰С</th><th>J</th></d≤3<></th></d≤2.5<> | 2.5 <d≤3< th=""><th>3≤d≤40</th><th>۰С</th><th>J</th></d≤3<> | 3≤d≤40 | ۰С     | J           |  |  |  |  |
| 54355      | DIN EN 10025-2        | S355JR with<br>max. 0.03 % Si | 13   | 14  | 15   | 16  | 20     | +20    | 27(4)       |  |  |  |  |
| 54356      | DIN EN 10025-2        | \$355J0 with max. 0.03 % \$i  | 13   | 14  | 15   | 16  | 20     | 0      | 27(4)       |  |  |  |  |
| 54358      | DIN EN 10025-2        | S355J2 with<br>max. 0.03 % Si | 13   | 14  | 15   | 16  | 20     | -20    | 27(4)       |  |  |  |  |
| 54357      | DIN EN 10025-2        | S355J2+N with max. 0.03 % Si  | 13   | 14  | 15   | 16  | 20     | -20    | 27(4)       |  |  |  |  |

- 1) Grades with N code can be normalized and/or hot formed by customers.
- 2) Tensile tests are applied to "Transversal" test samples.
- 3) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 4) Impact tests are carried out if it is customer's request in order.

#### UN ALLOYED GENERAL STRUCTURAL STEELS SUITABLE FOR GALVANIZING & BENDING Standard: DIN EN 10025 Part 2-2004 **Chemical Composition (%)** Al<sup>(1)</sup> N<sup>(1)</sup> Ceq<sup>(2)</sup> C (max.) S Cu Colakoglu Standard Quality d≤16 | 16<d≤40 | max. | max. | max. | max. Quality id min. max. max. 54235 DIN EN 10025-2 S235JR Stan. 0.17 1.40 0.035 0.035 0.55 0.012 0.35 S235JR DIN EN 10025-2 0.17 0.17 1.4 0.035 0.035 0.55 0.012 0.35 50236 Stan. (Cu+Cr+Ni≤0.35) S235J0 1.4 0.030 0.030 0.55 DIN EN 10025-2 0.17 0.17 0.012 0.35 50237 Stan. (Cu+Cr+Ni≤0.35) 0.012 0.35 DIN EN 10025-2 Stan. 0.17 1.4 | 0.030 | 0.030 | 0.55 | 50235 S235J0 0.17 53235 DIN EN 10025-2 S235J2 Stan. 0.17 1.4 0.025 0.025 0.55 0.012 0.21 1.5 0.035 0.035 0.55 54275 DIN EN 10025-2 S275JR 1.5 0.030 0.030 0.55 0.012 0.40 50275 DIN EN 10025-2 S275J0 Stan. 0.18 0.18 DIN EN 10025-2 Stan. 0.18 0.18 1.5 0.025 0.025 0.55 **—** 0.012 0.40 53275 S275J2

#### Explanations

|            | Mechanical Properties |                           |              |  |            |                         |  |  |  |  |  |  |  |
|------------|-----------------------|---------------------------|--------------|--|------------|-------------------------|--|--|--|--|--|--|--|
|            |                       |                           | Re           |  | Rm         | <b>1</b> <sup>(1)</sup> |  |  |  |  |  |  |  |
|            |                       |                           | N/mm         | 2  | N/mm²      |                         |  |  |  |  |  |  |  |
|            |                       |                           | min.         | min.   |            |                         |  |  |  |  |  |  |  |
| Colakoglu  | C4                    | 0!!                       | d : thicknes | ss, mm   | d : thickn | ess, mm                 |  |  |  |  |  |  |  |
| Quality id | Standard              | Quality                   | ≤16          | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;40</th></d≤40<> | <3         | 3≤d<40                  |  |  |  |  |  |  |  |
| 54235      | DIN EN 10025-2        | S235JR                    | 235          | 225  | 360 - 510  | 360 - 510               |  |  |  |  |  |  |  |
| 50236      | DIN EN 10025-2        | S235JR<br>(Cu+Cr+Ni≤0.35) | 235          | 225  | 360 - 510  | 360 - 510               |  |  |  |  |  |  |  |
| 50237      | DIN EN 10025-2        | S235J0<br>(Cu+Cr+Ni≤0.35) | 235          | 225  | 360 - 510  | 360 - 510               |  |  |  |  |  |  |  |
| 50235      | DIN EN 10025-2        | S235J0                    | 235          | 225  | 360 - 510  | 360 - 510               |  |  |  |  |  |  |  |
| 53235      | DIN EN 10025-2        | S235J2                    | 235          | 225  | 360 - 510  | 360 - 510               |  |  |  |  |  |  |  |
| 54275      | DIN EN 10025-2        | S275JR                    | 275          | 265  | 430 - 580  | 410 - 560               |  |  |  |  |  |  |  |
| 50275      | DIN EN 10025-2        | S275J0                    | 275          | 265  | 430-580    | 410-560                 |  |  |  |  |  |  |  |
| 53275      | DIN EN 10025-2        | S275J2                    | 275          | 265  | 430-580    | 410-560                 |  |  |  |  |  |  |  |

|            | Mechanical Properties |                           |  |     |                    |    |    |        |                       |  |  |  |  |
|------------|-----------------------|---------------------------|--|-----|--------------------|----|----|--------|-----------------------|--|--|--|--|
|            |                       |                           |  |     | A(%), min.         |    |    | Impact | (long) <sup>(3)</sup> |  |  |  |  |
|            |                       |                           |  | A   | 30                 |    | A5 |        | KV <sub>c</sub>       |  |  |  |  |
|            |                       |                           |  | d   | : thickness, m     | m  |    | Temp.  | min.                  |  |  |  |  |
| Colakoglu  | Standard              | Quality                   |  |     | . circuite33, iiii |    |    |        |                       |  |  |  |  |
| Quality id | Standard              | Quality                   | 1 <d≤1.5< th=""><th>۰c</th><th>J</th></d≤1.5<> | ۰c  | J                  |    |    |        |                       |  |  |  |  |
| 54235      | DIN EN 10025-2        | S235JR                    | 16   | 17  | 18                 | 19 | 24 | +20    | 27(3)                 |  |  |  |  |
| 50236      | DIN EN 10025-2        | S235JR<br>(Cu+Cr+Ni≤0.35) | 16   | 17  | 18                 | 19 | 24 | +20    | 27(3)                 |  |  |  |  |
| 50237      | DIN EN 10025-2        | S235J0<br>(Cu+Cr+Ni≤0.35) | 16   | 17  | 18                 | 19 | 24 | 0      | 27(3)                 |  |  |  |  |
| 50235      | DIN EN 10025-2        | S235J0                    | 16   | 17  | 18                 | 19 | 24 | 0      | 27(3)                 |  |  |  |  |
| 53235      | DIN EN 10025-2        | S235J2                    | 16   | 17  | 18                 | 19 | 24 | -20    | 27(3)                 |  |  |  |  |
| 54275      | DIN EN 10025-2        | S275JR                    | 14   | +20 | 27(3)              |    |    |        |                       |  |  |  |  |
| 50275      | DIN EN 10025-2        | S275J0                    | 14   | 0   | 27                 |    |    |        |                       |  |  |  |  |
| 53275      | DIN EN 10025-2        | S275J2                    | 14   | 15  | 16                 | 17 | 21 | -20    | 27                    |  |  |  |  |

#### Explanations

- 1) Tensile tests are applied to "Transversal" test samples.
- 2) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 3) Impact tests are carried out if it is customer's request in order.

<sup>1)</sup> The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of  $0.020\,\%$ .

<sup>2)</sup> Ceq is calculated by %CE (IIW) = C+Mn/6+(C+Mo+V)/5+(Ni+Cr)/15 formula.

| LOW        | LOW ALLOYED STEELS FOR COLD DRAWING & NORMALIZING (SUITABLE FOR GALVANIZING) |                              |       |      |      |      |       |       |      |               |       |                |      |
|------------|--|------------------------------|-------|------|------|------|-------|-------|------|---------------|-------|----------------|------|
|            | Standard: DIN EN 10025 Part 2-2004   |                              |       |      |      |      |       |       |      |               |       |                |      |
|            | Chemical Composition (%)   |                              |       |      |      |      |       |       |      |               |       |                |      |
| Colakoglu  | Chandand   | Q                            |       | C    | Mn   | Si   | P     | S     | Cu   | Ti            | N ppm | Nb             | Ceq  |
| Quality id | Standard   | Quality                      |       | max  | max  | max  | max   | max   | max  | max           | max   | max            | max  |
| 54510      | DIN EN 10025-2   | S355JR+N with max. 0.03 % Si | Stan. | 0.24 | 1.60 | 0.55 | 0.035 | 0.035 | 0.55 | 0.01-<br>0.03 | 120   | 0.005-<br>0.03 | 0.45 |

1) The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of  $0.020\,\%$ .

2) Ceq is calculated by %CE (IIW) = C + Mn/6 + (C + Mo + V)/5 + (Ni + Cr)/15 formula.

|            | Mechanical Properties |                                 |           |  |                   |                  |  |  |  |  |  |  |  |
|------------|-----------------------|---------------------------------|-----------|--|-------------------|------------------|--|--|--|--|--|--|--|
|            |                       |                                 |           | Re   | Rn                | n <sup>(2)</sup> |  |  |  |  |  |  |  |
|            |                       |                                 | N/        | mm²  | N/n               | ım²              |  |  |  |  |  |  |  |
|            |                       |                                 | min.      | min.   |                   |                  |  |  |  |  |  |  |  |
| Colakoglu  | Chandand              | O1:4                            | d : thick | ness, mm   | d : thickness, mm |                  |  |  |  |  |  |  |  |
| Quality id | Standard              | Quality                         | ≤16       | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;40</th></d≤40<> | <3                | 3≤d<40           |  |  |  |  |  |  |  |
| 54510      | DIN EN 10025-2        | S355JR+N with<br>max. 0.03 % Si | 355       | 345  | 510 - 680         | 470-630          |  |  |  |  |  |  |  |

|            | Mechanical Properties |                              |  |   |  |   |                 |                              |       |  |  |  |  |
|------------|-----------------------|------------------------------|--|---|--|---|-----------------|------------------------------|-------|--|--|--|--|
|            |                       |                              |  |   | A(%), min.   |   |                 | Impact (long) <sup>(3)</sup> |       |  |  |  |  |
|            |                       |                              |  | A   | A5   |   | ΚV <sub>c</sub> |                              |       |  |  |  |  |
|            |                       |                              |  | d   | Temp.  |   |                 |                              |       |  |  |  |  |
| Colakoglu  | Standard              | 0!!                          |  |   |  |   |                 |                              | min.  |  |  |  |  |
| Quality id | Standard              | Quality                      | 1 <d≤1.5< th=""><th>1.5<d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰(</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<></th></d≤1.5<> | 1.5 <d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰(</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<> | 2 <d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰(</th><th>J</th></d≤3<></th></d≤2.5<> | 2.5 <d≤3< th=""><th>3≤d≤40</th><th>۰(</th><th>J</th></d≤3<> | 3≤d≤40          | ۰(                           | J     |  |  |  |  |
| 54510      | DIN EN 10025-2        | S355JR+N with max. 0.03 % Si | 13 14 15 16 20   |   |  |   |                 |                              | 27(4) |  |  |  |  |

#### Explanations

- 1) Grades with N code can be normalized and/or hot formed by customers.
- 2) Tensile tests are applied to "Transversal" test samples.
- 3) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 4) Impact tests are carried out if it is customer's request in order.

| GENE       | GENERAL STRUCTURAL STEELS SUITABLE FOR COLD FORMING, BENDING & SPINNING |           |        |          |   |       |       |       |     |                   |                    |  |  |  |
|------------|---|-----------|--------|----------|---|-------|-------|-------|-----|-------------------|--------------------|--|--|--|
|            |   | Sta       | ndard: | DIN EN 1 | 0025-Part 2   | -2004 |       |       |     |                   |                    |  |  |  |
|            | Chemical Composition (%)  |           |        |          |   |       |       |       |     |                   |                    |  |  |  |
| Colakoglu  | Ctdd  | 0!!4      |        | C(       | max.)   | Mn    | P     | S     | Ca  | AI <sup>(1)</sup> | Ceq <sup>(2)</sup> |  |  |  |
| Quality id | Standard  | Quality   |        | d≤16     | 16 <d≤40< th=""><th>max.</th><th>max.</th><th>max.</th><th>ppm</th><th>min.</th><th>max.</th></d≤40<> | max.  | max.  | max.  | ppm | min.              | max.               |  |  |  |
| 40234      | DIN EN 10025-2  | S235JRC   | Stan.  | 0.17     | 0.17  | 1.4   | 0.035 | 0.035 | 20  | 0.020             | 0.35               |  |  |  |
| 40235      | DIN EN 10025-2  | S235J2C   | Stan.  | 0.17     | 0.17  | 1.4   | 0.025 | 0.025 | 20  | 0.020             | 0.35               |  |  |  |
| 44235      | DIN EN 10025-2  | S235JRC+N | Stan.  | 0.17     | 0.17  | 1.4   | 0.035 | 0.035 | 20  | 0.020             | 0.35               |  |  |  |
| 43275      | DIN EN 10025-2  | S275JRC   | Stan.  | 0.18     | 0.18  | 1.5   | 0.025 | 0.025 | 20  | 0.020             | 0.40               |  |  |  |
| 40275      | DIN EN 10025-2  | S275J2C   | Stan.  | 0.18     | 0.18  | 1.5   | 0.025 | 0.025 | 20  | 0.020             | 0.40               |  |  |  |
| 44275      | DIN EN 10025-2  | S275JRC+N | Stan.  | 0.18     | 0.18  | 1.5   | 0.025 | 0.025 | 20  | 0.020             | 0.40               |  |  |  |

#### Explanations

1) The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of 0.020 %.

2) Ceq is calculated by %CE (IIW) = C + Mn/6 + (C + Mo + V)/5 + (Ni + Cr)/15 formula.

|            |                | Mechanical             | Prope | rties  |            |           |
|------------|----------------|------------------------|-------|--|------------|-----------|
|            |                |                        |       | Re   | Rm         | (3)       |
|            |                |                        |       | N/mm²  | N/m        | ım²       |
|            |                |                        | min.  | min.   |            |           |
| Colakoglu  | Standard       | Oalit                  | d:th  | ickness, mm  | d : thickn | ess, mm   |
| Quality id | Standard       | Quality                | ≤16   | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;40</th></d≤40<> | <3         | 3≤d<40    |
| 40234      | DIN EN 10025-2 | S235JRC <sup>(2)</sup> | 235   | 225  | 360 - 510  | 360 - 510 |
| 40235      | DIN EN 10025-2 | S235J2C                | 235   | 225  | 360 - 510  | 360 - 510 |
| 44235      | DIN EN 10025-2 | S235JRC+N (1)(2)       | 235   | 225  | 360 - 510  | 360 - 510 |
| 43275      | DIN EN 10025-2 | S275JRC <sup>(2)</sup> | 275   | 265  | 430-580    | 410-560   |
| 40275      | DIN EN 10025-2 | S275J2C                | 275   | 265  | 430 - 580  | 410 - 560 |
| 44275      | DIN EN 10025-2 | S275JRC+N (1)(2)       | 275   | 265  | 430-580    | 410-560   |

|            | Mechanical Properties |                        |   |                |                |    |      |        |                        |  |  |
|------------|-----------------------|------------------------|---|----------------|----------------|----|------|--------|------------------------|--|--|
|            |                       |                        |   |                | A(%)           |    |      | Impact | (long.) <sup>(4)</sup> |  |  |
|            |                       |                        |   | A              | 80             |    | A5   |        | KVc                    |  |  |
|            |                       |                        |   |                | : thickness, n |    |      | Temp.  | min                    |  |  |
| Colakoglu  | Standard              | Quality                |   | a              |                |    | min. |        |                        |  |  |
| Quality id | Standard              | Quality                | 1 <d≤1.5 1.5<d≤2="" 2.5<d≤3="" 2<d≤2.5="" 3≤d≤40<="" th=""><th>J</th></d≤1.5> |                |                |    |      |        | J                      |  |  |
| 40234      | DIN EN 10025-2        | S235JRC <sup>(2)</sup> | 16  | 17             | 18             | 19 | 24   | +20    | 27(5)                  |  |  |
| 40235      | DIN EN 10025-2        | S235J2C                | 16  | 17             | 18             | 19 | 24   | -20    | 27(5)                  |  |  |
| 44235      | DIN EN 10025-2        | S235JRC+N (1)(2)       | 16  | 17             | 18             | 19 | 24   | +20    | 27(5)                  |  |  |
| 43275      | DIN EN 10025-2        | S275JRC <sup>(2)</sup> | 14  | 15             | 16             | 17 | 21   | +20    | 27(5)                  |  |  |
| 40275      | DIN EN 10025-2        | S275J2C                | 14 15 16 17 21  |                |                |    |      | -20    | 27(5)                  |  |  |
| 44275      | DIN EN 10025-2        | S275JRC+N (1)(2)       | 14  | 14 15 16 17 21 |                |    |      |        |                        |  |  |

### Explanations

- 1) Grades with N code can be normalized and/or hot formed by customers.
- 2) Grades with C code can be cold formed and/or cold flanged by customers.
- 3) Tensile tests are applied to "Transversal" test samples.
- 4) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 5) Impact tests are carried out if it is customer's request in order.

|            |                |           |  | Mechanical | Properties |                            |               |     |    |    |  |  |
|------------|----------------|-----------|--|------------|------------|----------------------------|---------------|-----|----|----|--|--|
|            |                |           |  |            | В          | ending <sup>(1)</sup> (tra | ns., ≤90°, mı | rb) |    |    |  |  |
| Colakoglu  | Standard       | Ouglitu   |  |            |            | thicknes                   | s, d (mm)     |     |    |    |  |  |
| Quality id | Standard       | Quality   | 6 <d≤7 10<d≤12="" 12<d≤14="" 14<d≤16="" 16<d≤18="" 18<d≤20<="" 7<d≤8="" 8<d≤10="" th=""></d≤7> |            |            |                            |               |     |    |    |  |  |
| 40234      | DIN EN 10025-2 | S235JRC   | 10 12 16 20 25 28 36 40  |            |            |                            |               |     |    |    |  |  |
| 40235      | DIN EN 10025-2 | S235J2C   | 10   | 12         | 16         | 20                         | 25            | 28  | 35 | 40 |  |  |
| 44235      | DIN EN 10025-2 | S235JRC+N | 10   | 12         | 16         | 20                         | 25            | 28  | 36 | 40 |  |  |
| 43275      | DIN EN 10025-2 | S275JRC   | 12   | 16         | 20         | 25                         | 28            | 32  | 40 | 45 |  |  |
| 40275      | DIN EN 10025-2 | S275J2C   | 12   | 16         | 20         | 25                         | 28            | 32  | 40 | 45 |  |  |
| 44275      | DIN EN 10025-2 | S275JRC+N | 12 16 20 25 28 32 40 45  |            |            |                            |               |     |    |    |  |  |

|   | GENERAL STRUCTURAL STEELS SUITABLE FOR COLD FORMING, BENDING & SPINNING |                                 |        |           |   |         |     |       |       |                    |       |       |      |
|---|---|---------------------------------|--------|-----------|---|---------|-----|-------|-------|--------------------|-------|-------|------|
|   |   |                                 | Standa | rd: DIN E | N 10025-Pa  | rt 2-20 | 04  |       |       |                    |       |       |      |
|   | Chemical Composition (%)  |                                 |        |           |   |         |     |       |       |                    |       |       |      |
| Colakoglu Standard Quality C (max.) Si Mn P S Cu Al <sup>(1)</sup> N <sup>(1)</sup> C |   |                                 |        |           |   |         |     |       |       | Ceq <sup>(2)</sup> |       |       |      |
| Quality id  | Standard  | Quality                         |        | d≤16      | 16 <d≤40< th=""><th>max</th><th>max</th><th>max</th><th>max</th><th>max</th><th>min.</th><th>max</th><th>max</th></d≤40<> | max     | max | max   | max   | max                | min.  | max   | max  |
| 42355   | DIN EN 10025-2  | S355JRC<br>with max. 0.03 % Si  | Stan.  | 0.24      | 0.24  | 0.55    | 1.6 | 0.035 | 0.035 | 0.55               | _     | 0.012 | 0.45 |
| 43355   | DIN EN 10025-2  | \$355J2C<br>with max. 0.03 % Si | Stan.  | 0.20      | 0.20  | 0.55    | 1.6 | 0.025 | 0.025 | 0.55               | _     | _     | 0.45 |
| 40355   | DIN EN 10025-2  | S355J2C                         | Stan.  | 0.20      | 0.20  | 0.55    | 1.6 | 0.025 | 0.025 | 0.55               | 0.020 |       | 0.45 |
| 44355   | DIN EN 10025-2  | S355J2C+N                       | Stan.  | 0.20      | 0.20  | 0.55    | 1.6 | 0.025 | 0.025 | 0.55               | _     | _     | 0.45 |

|            |                | Mech  | anical Properties |  |            |           |
|------------|----------------|---|-------------------|--|------------|-----------|
|            |                |   | Re                |  | Rm         | (3)       |
|            |                |   | N/mm              | 2  | N/m        | m²        |
|            |                |   | min.              | min.   |            |           |
| Colakoglu  | Standard       | 0   | d : thicknes      | s, mm  | d : thickn | ess, mm   |
| Quality id | Standard       | Quality                                       | ≤16               | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;40</th></d≤40<> | <3         | 3≤d<40    |
| 42355      | DIN EN 10025-2 | S355JRC <sup>(2)</sup><br>with max. 0.03 % Si | 355               | 345  | 510-680    | 470-630   |
| 43355      | DIN EN 10025-2 | S355J2C <sup>(2)</sup><br>with max. 0.03 % Si | 355               | 345  | 510-680    | 470-630   |
| 40355      | DIN EN 10025-2 | S355J2C                                       | 355               | 345  | 510 - 680  | 470 - 630 |
| 44355      | DIN EN 10025-2 | S355J2C+N (1)                                 | 355               | 345  | 510-680    | 470-630   |

|            |                |   | Mecha   | nical Properti | es                |    |        |        |                        |
|------------|----------------|---|---|----------------|-------------------|----|--------|--------|------------------------|
|            |                |   |   |                | A(%)              |    |        | Impact | (long.) <sup>(4)</sup> |
|            |                |   |   | A              | 80                |    | A5     | T      | ΚV <sub>C</sub>        |
|            |                |   |   |                | l : thickness, mr | _  |        | Temp.  | min.                   |
| Colakoglu  | Standard       | Ouality                                       |   |                |                   |    |        |        |                        |
| Quality id | Standard       | Quality                                       | 1 <d≤1.5 1.5<d≤2="" 2.5<d≤3<="" 2<d≤2.5="" th=""><th>3≤d≤40</th><th>۰(</th><th>J</th></d≤1.5> |                |                   |    | 3≤d≤40 | ۰(     | J                      |
| 42355      | DIN EN 10025-2 | S355JRC <sup>(2)</sup><br>with max. 0.03 % Si | 13  | 14             | 15                | 16 | 20     | +20    | 27 <sup>(5)</sup>      |
| 43355      | DIN EN 10025-2 | S355J2C <sup>(2)</sup><br>with max. 0.03 % Si | 13  | 14             | 15                | 16 | 20     | -20    | 27(5)                  |
| 40355      | DIN EN 10025-2 | S355J2C                                       | 13  | 14             | 15                | 16 | 20     | -20    | 27(5)                  |
| 44355      | DIN EN 10025-2 | S355J2C+N (1)                                 | 13  | 14             | 15                | 16 | 20     | -20    | 27(5)                  |

- 1) Grades with N code can be normalized and/or hot formed by customers.
- 2) Grades with C code can be cold formed and/or cold flanged by customers.
- 3) Tensile tests are applied to "Transversal" test samples.
- 4) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 5) Impact tests are carried out if it is customer's request in order.

|            |                |                                  | M  | echanical P | roperties |                            |               |     |    |    |  |  |
|------------|----------------|----------------------------------|--|-------------|-----------|----------------------------|---------------|-----|----|----|--|--|
|            |                |                                  |  |             | В         | ending <sup>(1)</sup> (tra | ns., ≤90°, mı | rb) |    |    |  |  |
| Colakoglu  | Standard       | O. alita                         |  |             |           | thicknes                   | s, d (mm)     |     |    |    |  |  |
| Quality id | Standard       | Quality                          | 6 <d≤7 10<d≤12="" 12<d≤14="" 14<d≤16="" 16<d≤18="" 18<d≤20<="" 7<d≤8="" 8<d≤10="" th=""></d≤7> |             |           |                            |               |     |    |    |  |  |
| 42355      | DIN EN 10025-2 | S355JRC<br>with max. 0.03 % Si   | _  | _           | _         | _                          | _             | _   | _  | _  |  |  |
| 43355      | DIN EN 10025-2 | \$355J2C<br>with max. 0.03 % \$i | 12   | 16          | 20        | 25                         | 32            | 36  | 45 | 50 |  |  |
| 40355      | DIN EN 10025-2 | S355J2C                          | 12 16 20 25 32 36 45 50  |             |           |                            |               |     |    |    |  |  |
| 44355      | DIN EN 10025-2 | S355J2C+N                        | 12 16 20 25 32 36 45 50  |             |           |                            |               |     |    |    |  |  |

#### Explanations

1) The values for bending tests are applied to 90  $^\circ$  and acute angles.

<sup>1)</sup> The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of 0.020 %.
2) Ceq is calculated by %CE (IIW) = C+Mn/6+(C+Mo+V)/5+(Ni+Cr)/15 formula.

|  | ATMOSPHERE CORROSION RESISTANT STEELS |         |  |      |          |       |           |      |      |      |      |      |       |
|--|---------------------------------------|---------|--|------|----------|-------|-----------|------|------|------|------|------|-------|
|  | Standard: DIN EN 10025 Part 5 - 2004  |         |  |      |          |       |           |      |      |      |      |      |       |
|  |                                       |         |  | Che  | emical C | ompos | ition (%) |      |      |      |      |      |       |
| Colakoglu  | Standard                              | Ouglitu |  | C    | Mn       | Si    | P         | S    | Cr   | Ni   | Cu   | Al   | N ppm |
| Quality id   | Standard                              | Quality |  | max. | max.     | max.  | max.      | max. | max. | max. | max. | min. | max.  |
| <b>58355</b> DIN EN 10025-5 <b>S355JOWP</b> Stan. 0.12 1.0 0.75 0.06-0.15 0.030 0.3-1.25 0.65 0.25-0.55 — 90 |                                       |         |  |      |          |       |           |      |      |      |      |      |       |
| 58356 DIN EN 10025-5 S355J2WP Stan. 0.12 1.0 0.75 0.06-0.15 0.030 0.3-1.25 0.65 0.25-0.55 0.02 —             |                                       |         |  |      |          |       |           |      |      |      |      |      |       |

|            |                | Mechar   | nical Pro | perties   |            |         |
|------------|----------------|----------|-----------|---|------------|---------|
|            |                |          |           | Re  | Rm         | (1)     |
|            |                |          |           | N/mm²   | N/m        | m²      |
|            |                |          | min.      | min.  |            |         |
| Colakoglu  | C4             | 0!!      | d:th      | ickness, mm   | d : thickn | ess, mm |
| Quality id | Standard       | Quality  | ≤16       | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;100</th></d≤40<> | <3         | 3≤d<100 |
| 58355      | DIN EN 10025-5 | S355JOWP | 355       | 345   | 510-680    | 470-630 |
| 58356      | DIN EN 10025-5 | S355J2WP | 355       | 345   | 510-680    | 470-630 |

|            | Mechanical Properties |          |   |  |   |        |                               |         |  |  |
|------------|-----------------------|----------|---|--|---|--------|-------------------------------|---------|--|--|
|            |                       |          |   | Α(   | [%)   |        | Impact (long.) <sup>(2)</sup> |         |  |  |
|            |                       |          |   | A80  |   | A5     |                               | ΚVc     |  |  |
|            |                       |          |   | d . thiste   |   | Temp.  | min.                          |         |  |  |
| Colakoglu  | Standard              | Ouglity  | d : thickness, mm   |  |   |        |                               | 111111. |  |  |
| Quality id | Stanuaru              | Quality  | 1.5 <d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰۲</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<> | 2 <d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰۲</th><th>J</th></d≤3<></th></d≤2.5<> | 2.5 <d≤3< th=""><th>3≤d≤40</th><th>۰۲</th><th>J</th></d≤3<> | 3≤d≤40 | ۰۲                            | J       |  |  |
| 58355      | DIN EN 10025-5        | S355JOWP | 14  | 15   | 20  | 0      | 27(3)                         |         |  |  |
| 58356      | DIN EN 10025-5        | S355J2WP | 14  | 15   | 20  | -20    | 27(3)                         |         |  |  |

- 1) Tensile tests are applied to "Transversal" test samples.
- 2) Impact tests are applied to "Longitudinal" test samples.
- 3) Impact tests are carried out if it is customer's request in order.

|            | STEELS FOR SPIRAL PIPE MANUFACTURING   |         |  |         |              |       |    |   |   |    |                   |                  |                    |
|------------|--|---------|--|---------|--------------|-------|----|---|---|----|-------------------|------------------|--------------------|
|            | Standard: DIN EN 10025-Part 2-2004   |         |  |         |              |       |    |   |   |    |                   |                  |                    |
|            |  |         |  | Chemica | l Compositio | n (%) |    |   |   |    |                   |                  |                    |
| Colakoglu  | Ctondond   | Ovalitu |  | C       | (max)        | Si    | Mn | P | S | Cu | AI <sup>(1)</sup> | N <sup>(1)</sup> | Ceq <sup>(2)</sup> |
| Quality id | Quality id Standard Quality d≤16 16 <d≤40 max.="" max.<="" min.="" th=""></d≤40>   |         |  |         |              |       |    |   |   |    |                   |                  |                    |
| 92355      | 92355         DIN EN 10025-2         S355JR-Special         Stan.         0.24         0.24         0.55         1.6         0.035         0.035         0.55         —         0.012         0.45 |         |  |         |              |       |    |   |   |    |                   |                  |                    |

- Explanations

  1) The maximum value for nitrogen does not apply if the chemical composition shows a minimum aluminium content of 0.020 %.

  2) Ceq is calculated by %CE (IIW) = C+Mn/6+(C+Mo+V)/5+(Ni+Cr)/15 formula.

|            |                | Mechani        | cal Prop | erties   |            |         |  |  |  |  |
|------------|----------------|----------------|----------|--|------------|---------|--|--|--|--|
|            |                |                |          | Re   | Rm         | (1)     |  |  |  |  |
|            |                |                |          | N/mm²  | N/m        | m²      |  |  |  |  |
|            |                |                | min.     | min.   |            |         |  |  |  |  |
| Colakoglu  | Ctondord       | Oalita.        | d:th     | ickness, mm  | d : thickn | ess, mm |  |  |  |  |
| Quality id | Standard       | Quality        | ≤16      | 16 <d≤40< th=""><th>&lt;3</th><th>3≤d&lt;40</th></d≤40<> | <3         | 3≤d<40  |  |  |  |  |
| 92355      | DIN EN 10025-2 | S355JR-Special | 355      | 345  | 510-680    | 470-630 |  |  |  |  |

|            |                |                | Mechanic   | al Properti   | es   |   |        |          |                        |
|------------|----------------|----------------|--|---|--|---|--------|----------|------------------------|
|            |                |                |  |   | A(%)   |   |        | Impact ( | long.) <sup>(2)</sup>  |
|            |                |                |  | A   | 80   |   | A5     |          | <b>KV</b> <sub>C</sub> |
|            |                |                |  | d.  | thickness, r   | mm  |        | Temp.    | min.                   |
| Colakoglu  | Standard       | Quality        |  | u.  | tilitkiless, i   |   |        |          | 111111.                |
| Quality id | Stanuaru       | Quality        | 1 <d≤1.5< th=""><th>1.5<d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<></th></d≤1.5<> | 1.5 <d≤2< th=""><th>2<d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<></th></d≤2.5<></th></d≤2<> | 2 <d≤2.5< th=""><th>2.5<d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<></th></d≤2.5<> | 2.5 <d≤3< th=""><th>3≤d≤40</th><th>۰C</th><th>J</th></d≤3<> | 3≤d≤40 | ۰C       | J                      |
| 92355      | DIN EN 10025-2 | S355JR-Special | 13   | 14  | 15   | 16  | 20     | +20      | 27(3)                  |

#### Explanations

- 1) Tensile tests are applied to "Transversal" test samples.
- 2) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 3) Impact tests are carried out if it is customer's request in order.

|                      |                         | WHEEL STEELS                   | SUIT  | ABLE F        | OR CO       | OLD F    | ORMI      | NG & E | DEEP C | RAWING   |            |       |       |
|----------------------|-------------------------|--------------------------------|-------|---------------|-------------|----------|-----------|--------|--------|----------|------------|-------|-------|
|                      |                         |                                | Stai  | ndard: [      | DIN EN 1    | 0025 -P  | art 2 - 2 | 004    |        |          |            |       |       |
|                      |                         |                                |       | Chem          | ical Con    | npositio | on (%)    |        |        |          |            |       |       |
| Colakoglu            | 6. 1.1                  | 0 15                           |       | C             | Mn          | Si       | Р         | S      | Cu     | Cu+Cr+Ni | Al         | N     | Ca    |
| Quality id           | Standard                | Quality                        |       | max.          | max.        | max.     | max.      | max.   | max.   | max.     | min.       | max.  | ppm   |
| 81222                | DIN EN<br>10111:2008-06 | DD11                           | Stan. | 0.10          | 0.45        | -        | 0.035     | 0.035  | _      | _        | _          | 0.007 | _     |
| 82235                | DIN EN 10025-2          | S235JRC-Special                | Stan. | 0.14          | 0.7         | 0.15     | 0.02      | 0.01   | (2)    | 0.30     | 0.02-0.045 | 0.001 | —     |
| 81235                | DIN EN 10025-2          | S235J2C+N-Special              | Stan. | 0.14          | 0.7         | 0.1      | 0.02      | 0.015  | (2)    | 0.30     | 0.02-0.07  | 0.009 | _     |
| 82280                | DIN EN 10025-2          | S275JRC-Special                | Stan. | 0.10          | 0.8         | 0.05     | 0.02      | 0.015  | (2)    | 0.30     | 0.015-0.07 | 0.009 | _     |
| 82290                | DIN EN 10025-2          | S275JRC-Special<br>(S275J2C+N) | Stan. | 0.18          | 1.25        | 0.1      | 0.020     | 0.015  | (2)    | 0.30     | 0.02-0.07  | 0.009 | _     |
| 82330 <sup>(3)</sup> | DIN EN 10025-2          | S355JRC-Special<br>(S355J2C+N) | Stan. | 0.15-<br>0.18 | 1.3-<br>1.4 | 0.1      | 0.02      | 0.01   | 0.15   | _        | 0.02-0.06  | 0.001 | 20-50 |
| 82355                | DIN EN 10025-2          | S355J2C+N Special              | Stan. | 0.24          | 1.6         | 0.55     | 0.035     | 0.035  | 0.55   | _        | _          | 0.012 | _     |
| 81330                | DIN EN 10025-2          | S355JRC-Special                | Stan. | 0.19          | 1.6         | 0.3      | 0.025     | 0.02   | (2)    | 0.30     | 0.02-0.07  | 0.009 |       |

- 1) Ceq is calculated by %CE (IIW) = C+Mn/6+(C+Mo+V)/5+(Ni+Cr)/15 formula. 2) Cu+Cr+Ni is permitted up to a maximum 0.3 %.
- 3) Cr max. 0.05 %, Mo max. 0.015 %, V max. 0.005 %, Ni max. 0.1 %, Nb max. 0.005 %.

|            |                |                                | Mechanic | cal Properties    |      |              |          |                       |
|------------|----------------|--------------------------------|----------|-------------------|------|--------------|----------|-----------------------|
|            |                |                                | Re       | Rm <sup>(1)</sup> | A(%) | Bending      | Impact ( | long.) <sup>(2)</sup> |
| Colakoglu  | C4             | 0!!                            | N/mm     | 2                 | A5   | Ø            | T        | ΚV <sub>C</sub>       |
| Quality id | Standard       | Quality                        | min.     | min.              | min. | d: thickness | Temp.    | min.                  |
| 82235      | DIN EN 10025-2 | S235JRC-Special                | 235      | 360-440           | 30   | 0.5d         | +20      | 27(3)                 |
| 81235      | DIN EN 10025-2 | S235J2C+N-Special              | 235-320  | 350-430           | 35   | 0.5d         | -20      | 27(3)                 |
| 82280      | DIN EN 10025-2 | S275JRC-Special                | 280-350  | 390-460           | 28   | 0.5d         | +20      | 27(3)                 |
| 82290      | DIN EN 10025-2 | S275JRC-Special<br>(S275J2C+N) | 280-420  | 420-500           | 29   | 0.5d         | +20      | 27(3)                 |
| 82330      | DIN EN 10025-2 | S355JRC-Special<br>(S355J2C+N) | 330-450  | 480-590           | 25   | 2.0d         | +20      | 27(3)                 |
| 82355      | DIN EN 10025-2 | S355J2C+N-Special              | 330-540  | 480-600           | 24   | 2.0d         | -20      | 27(3)                 |
| 81330      | DIN EN 10025-2 | S355JRC-Special                | 330-540  | 480-600           | 24   | 2.0d         | +20      | 27(3)                 |

#### Explanations

- 1) Tensile tests are applied to "Transversal" test samples.
- 2) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 3) Impact tests are carried out if it is customer's request in order.

|            | HIGH S                                  | TRENGTH WH     | IEEL : | STEEL | s suit | ABLE  | FOR C | OLD F | ORMING     | & DEI             | EP DR        | AWIN   | G        |       |
|------------|---|----------------|--------|-------|--------|-------|-------|-------|------------|-------------------|--------------|--------|----------|-------|
|            | Standard : DIN EN 10149 - Part 2 - 1995 |                |        |       |        |       |       |       |            |                   |              |        |          |       |
|            | Chemical Composition (%)                |                |        |       |        |       |       |       |            |                   |              |        |          |       |
| Colakoglu  | Standard                                | Ovalitu        |        | C     | Mn     | Si    | P     | S     | Al         | Nb <sup>(1)</sup> | <b>V</b> (1) | Ti (1) | Cu+Cr+Ni | N     |
| Quality id | Standard                                | Quality        |        | max.  | max.   | max.  | max.  | max.  | min.       | max.              | max.         | max.   | max.     | max.  |
| 83355      | DIN EN 10149-2                          | S355MC         | Stan.  | 0.12  | 1.50   | 0.50  | 0.025 | 0.020 | 0.015      | 0.09              | 0.20         | 0.15   | _        | _     |
| 83420      | DIN EN 10149-2                          | S420MC-Special | Stan.  | 0.12  | 1.60   | 0.050 | 0.025 | 0.010 | 0.015-0.06 | 0.09              | 0.20         | 0.15   | _        | 0.009 |
| 83460      | DIN EN 10149-2                          | S460MC-Special | Stan.  | 0.1   | 1.60   | 0.15  | 0.02  | 0.008 | 0.02-0.06  | 0.09              | 0.20         | 0.15   | 0.2      | 0.009 |

# Explanations

1) Nb+V+Ti = % 0.22 max.

|            |                |                | Mech              | anical Prop       | erties |      |        |                        |                        |
|------------|----------------|----------------|-------------------|-------------------|--------|------|--------|------------------------|------------------------|
|            |                |                | Re <sup>(1)</sup> | Rm <sup>(1)</sup> | A(     | %)   | Impact | (long.) <sup>(2)</sup> | Bending <sup>(3)</sup> |
|            | -olakoglu      |                |                   | mm²               | 400    | AF   | T      | <b>KV</b> <sub>C</sub> | (trans.; 180°)         |
| Colakoglu  | Ctondond       | Ouglitu        |                   |                   | A80    | A5   | Temp.  | min.                   | mdb                    |
| Quality id | Standard       | Quality        | min.              | min.              | min.   | min. | ۰(     | J                      | (d=thickness)          |
| 83355      | DIN EN 10149-2 | S355MC         | 355               | 430-550           | 19     | 23   | -20    | 40                     | 0.5d                   |
| 83420      | DIN EN 10149-2 | S420MC-Special | >420              | 480-620           | _      | 22   | _      | _                      | 0.5d                   |
| 83460      | DIN EN 10149-2 | S460MC-Special | 450-550           | 550-650           | _      | 22   | _      | _                      | 0.5d                   |

#### Explanations

- 1) Tensile tests are applied to "Longitudinal" test samples.
- 2) Impact tests are carried out if it is customer's request in order. Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 3) Bending test values are applied to "Transversal" test samples.

| HIGI       | H STRENGTH D             | UAL PHASE                          | WHE   | EL STE   | ELS SU    | ITABL   | E FOR ( | COLD F | ORMII | NG & DI | EEP DR | AWING | G     |
|------------|--------------------------|------------------------------------|-------|----------|-----------|---------|---------|--------|-------|---------|--------|-------|-------|
|            |                          |                                    |       | Standard | d : DIN E | N 10338 | - 2010  |        |       |         |        |       |       |
|            | Chemical Composition (%) |                                    |       |          |           |         |         |        |       |         |        |       |       |
| Colakoglu  | Standard                 | Quality                            |       | C        | Mn        | Si      | P       | S      | Al    | Mo+Cr   | V      | Nb+Ti | B ppm |
| Quality id | Stanuaru                 | Quality                            |       | max.     | max.      | max.    | max.    | max.   | min.  | max.    | max.   | max.  | max.  |
| 83600      | DIN EN 10338-2010        | HCT580X <sup>(1)</sup><br>(DP 600) | Stan. | 0.17     | 2.20      | 0.80    | 0.080   | 0.015  | 2.0   | 1.00    | 0.20   | 0.15  | 50    |
| 83610      | DIN EN 10338-2010        | HCT600X <sup>(1)</sup><br>(DP 600) | Stan. | 0.17     | 2.20      | 0.80    | 0.080   | 0.015  | 2.0   | 1.00    | 0.20   | 0.15  | 50    |

1) The values are applied to strips with thickness T  $\leq$  6 mm

|            |                   | Mechani                            | cal Prope | rties             |      |                  |
|------------|-------------------|------------------------------------|-----------|-------------------|------|------------------|
|            |                   |                                    | Re (1)    | Rm <sup>(1)</sup> | A(%) | Strain hardening |
|            |                   |                                    | N/mm²     | N/mm²             | A(%) | exponent         |
| Colakoglu  | Standard          | Ouglity                            |           |                   | A80  | n                |
| Quality id | Stanuaru          | Quality                            | min.      | min.              | min. | min.             |
| 83600      | DIN EN 10338-2010 | HCT580X<br>(DP 600)                | 330-480   | 580               | 19   | 0.13             |
| 83610      | DIN EN 10338-2010 | HCT600X <sup>(1)</sup><br>(DP 600) | 340-420   | 600               | 20   | 0.14             |

#### Explanation:

1) Tensile tests are applied to "Longitudinal" test samples.

|            | HOT ROLLED CARBON STEELS |                                      |             |             |             |       |       |             |  |  |  |  |  |
|------------|--------------------------|--------------------------------------|-------------|-------------|-------------|-------|-------|-------------|--|--|--|--|--|
|            |                          | S                                    | tandard : S | AE J403-200 | 01          |       |       |             |  |  |  |  |  |
|            |                          | C                                    | hemical Co  | mposition ( | %)          |       |       |             |  |  |  |  |  |
| Colakoglu  | Standard                 | Oalitus                              |             | С           | Mn          | P     | S     | Si          |  |  |  |  |  |
| Quality id | Standard                 | Quality                              |             |             |             | max.  | max.  |             |  |  |  |  |  |
| 91006      | SAE J 403                | 1006                                 | Standard    | 0.08        | 0.45        | 0.030 | 0.060 | 0.10        |  |  |  |  |  |
| 91008      | SAE J 403                | 1008                                 | Standard    | 0.10        | 0.50        | 0.030 | 0.050 | 0.10        |  |  |  |  |  |
| 91010      | SAE J 403                | 1010                                 | Standard    | 0.08 - 0.13 | 0.30 - 0.60 | 0.030 | 0.050 | 0.10        |  |  |  |  |  |
| 91110      | SAE J 403                | 1010-Modified                        | Standard    | 0.08 - 0.13 | 0.30 - 0.60 | 0.030 | 0.050 | 0.10        |  |  |  |  |  |
| 91012      | SAE J 403                | 1012                                 | Standard    | 0.10- 0.15  | 0.30- 0.60  | 0.030 | 0.050 | 0.10        |  |  |  |  |  |
| 91015      | SAE J 403                | 1015                                 | Standard    | 0.13 - 0.18 | 0.30 - 0.60 | 0.030 | 0.050 | 0.10        |  |  |  |  |  |
| 91018      | SAE J 403                | 1018                                 | Standard    | 0.15 - 0.20 | 0.60 - 0.90 | 0.030 | 0.050 | 0.10        |  |  |  |  |  |
| 91118      | SAE J 403                | 1018-Modified<br>with max. 0.03 % Si | Standard    | 0.15 - 0.20 | 0.60 - 0.90 | 0.030 | 0.050 | 0.10        |  |  |  |  |  |
| 91020      | SAE J 403                | 1020                                 | Standard    | 0.18 - 0.23 | 0.30 - 0.60 | 0.030 | 0.050 | 0.15 - 0.35 |  |  |  |  |  |
| 91022      | SAE J 403                | 1022                                 | Standard    | 0.18 - 0.23 | 0.70 - 1.00 | 0.030 | 0.050 | 0.15 - 0.35 |  |  |  |  |  |
| 91025      | SAE J 403                | 1025                                 | Standard    | 0.22 - 0.28 | 0.30 - 0.60 | 0.030 | 0.050 | 0.15 - 0.35 |  |  |  |  |  |
| 91030      | SAE J 403                | 1030                                 | Standard    | 0.28 - 0.34 | 0.60 - 0.90 | 0.030 | 0.050 | 0.15 - 0.35 |  |  |  |  |  |

|            |  | HOT RO  | OLLED MED | IUM & HIGH       | CARBON STI  | EELS  |       |             |  |  |  |  |  |  |
|------------|--|---------|-----------|------------------|-------------|-------|-------|-------------|--|--|--|--|--|--|
|            |  |         | Stand     | lard: SAE J403-2 | 2001        |       |       |             |  |  |  |  |  |  |
|            | Chemical Composition (%)   |         |           |                  |             |       |       |             |  |  |  |  |  |  |
| Colakoglu  | Standard Quality Standard Stan |         |           |                  |             |       |       |             |  |  |  |  |  |  |
| Quality id | Standard   | Quality |           |                  |             | max.  | max.  |             |  |  |  |  |  |  |
| 91040      | SAE J 403  | 1035    | Standard  | 0.32 - 0.38      | 0.60 - 0.90 | 0.030 | 0.050 | 0.15 - 0.35 |  |  |  |  |  |  |
| 91045      | SAE J 403  | 1045    | Standard  | 0.43 - 0.50      | 0.60 - 0.90 | 0.030 | 0.050 | 0.15 - 0.35 |  |  |  |  |  |  |
| 91050      | SAE J 403  | 1050    | Standard  | 0.48 - 0.55      | 0.60 - 0.90 | 0.030 | 0.050 | 0.15 - 0.35 |  |  |  |  |  |  |
| 91055      | SAE J 403  | 1055    | Standard  | 0.5 - 0.6        | 0.6 - 0.9   | 0.030 | 0.050 | 0.15-0.35   |  |  |  |  |  |  |
| 91060      | SAE J 403  | 1060    | Standard  | 0.55 - 0.65      | 0.60 - 0.90 | 0.030 | 0.050 | 0.15 - 0.35 |  |  |  |  |  |  |
| 91070      | SAE J 403  | 1070    | Standard  | 0.65 - 0.75      | 0.60 - 0.90 | 0.030 | 0.050 | 0.15 - 0.35 |  |  |  |  |  |  |
| 91080      | SAE J 403  | 1080    | Standard  | 0.75 - 0.88      | 0.60 - 0.90 | 0.030 | 0.050 | 0.15 - 0.35 |  |  |  |  |  |  |

|                      |  |         |       | ВС          | BOILER STEELS |             |       |       |       |      |      |      |       |  |  |  |  |
|----------------------|--|---------|-------|-------------|---------------|-------------|-------|-------|-------|------|------|------|-------|--|--|--|--|
|                      | Standard: DIN EN 10028 - Part 2 - 2008 |         |       |             |               |             |       |       |       |      |      |      |       |  |  |  |  |
|                      | Chemical Composition (%)               |         |       |             |               |             |       |       |       |      |      |      |       |  |  |  |  |
| Colakoglu            |  |         |       |             |               |             |       |       |       |      |      |      |       |  |  |  |  |
| Quality id           | Standard                               | Quality |       | max.        | max.          | max.        | max.  | max.  | min.  | max. | max. | max. | max.  |  |  |  |  |
| 86235(2)             | DIN EN 10028-2                         | P235GH  | Stan. | 0.16        | 0.35          | 0.60 - 1.20 | 0.025 | 0.020 | 0.020 | 0.30 | 0.30 | 0.08 | 0.020 |  |  |  |  |
| 86265(2)             | DIN EN 10028-2                         | P265GH  | Stan. | 0.20        | 0.40          | 0.80 - 1.20 | 0.025 | 0.020 | 0.020 | 0.30 | 0.30 | 0.08 | 0.020 |  |  |  |  |
| 86295 <sup>(2)</sup> | DIN EN 10028-2                         | P295GH  | Stan. | 0.08 - 0.20 | 0.40          | 0.90 - 1.50 | 0.025 | 0.015 | 0.020 | 0.30 | 0.30 | 0.08 | 0.020 |  |  |  |  |
| 86355                | DIN EN 10028-2                         | P355GH  | Stan. | 0.10 - 0.22 | 0.60          | 1.10 - 1.70 | 0.025 | 0.015 | 0.020 | 0.30 | 0.30 | 0.08 | 0.020 |  |  |  |  |

### Explanations

1) Cr+Cu+Mo+Ni≤ % 0.70

2) Mn content can be decreased as 0.20 % if the thickness is under 6 mm.

|            |              |         |        | Mechan     | ical Propert      | ies    |          |                        |                           |                |
|------------|--------------|---------|--------|------------|-------------------|--------|----------|------------------------|---------------------------|----------------|
|            |              |         | Re     | e (min.)   | Rm <sup>(1)</sup> | A5 (%) | Impact ( | <sup>2)</sup> (trans.) | Rp 0.02 <sup>(1)</sup> (m | nin.) T: 300°C |
| Colakoglu  | Ctdd         | 0       |        | N/mm²      |                   | min.   | Temp.    | KV <sub>c</sub> (min.) | N/mm² (l                  | kg/mm²)        |
| Quality id | Standard     | Quality | d ≤ 16 | 16< d ≤ 40 |                   |        | °C       | J                      | d ≤ 16                    | 16< d ≤ 40     |
| 86235      | DIN EN 10028 | P235GH  | 235    | 225        | 360 - 480         | 24     | -20      | 27                     | 153                       | 147            |
| 86265      | DIN EN 10028 | P265GH  | 265    | 255        | 410 - 530         | 22     | -20      | 27                     | 173                       | 166            |
| 86295      | DIN EN 10028 | P295GH  | 295    | 290        | 460 - 580         | 22     | -20      | 27                     | 192                       | 189            |
|            |              |         |        |            |                   |        |          |                        |                           |                |
| 86355      | DIN EN 10028 | P355GH  | 355    | 345        | 510 - 650         | 20     | -20      | 27                     | 232                       | 225            |

## Explanations

1) Tensile tests are applied to "Transversal" test samples.

2) Impact tests are not carried out if nominal thickness is lesser than 6 mm.

|            |   |         |  | ВС   | DILER I | PIPE S | TEEL  |       |       |                   |                   |                   |                   |       |       |
|------------|---|---------|--|------|---------|--------|-------|-------|-------|-------------------|-------------------|-------------------|-------------------|-------|-------|
|            | Standard :DIN EN 10217-2-2002                   |         |  |      |         |        |       |       |       |                   |                   |                   |                   |       |       |
|            | Chemical Composition (%)                        |         |  |      |         |        |       |       |       |                   |                   |                   |                   |       |       |
| Colakoglu  | Standard  | 0       |  | C    | Si      | Mn     | P     | S     | Al    | Cr <sup>(1)</sup> | Cu <sup>(1)</sup> | Mo <sup>(1)</sup> | Nb <sup>(1)</sup> | V     | Ti    |
| Quality id | Standard  | Quality |  | max. | max.    | max.   | max.  | max.  | min.  | max.              | max.              | max.              | max.              | max.  | max.  |
| 86435      | 86435 DIN EN 10217-2 P235GH with max. 0.03 % Si |         |  |      | 0.35    | 1.20   | 0.025 | 0.020 | 0.020 | 0.30              | 0.30              | 0.08              | 0.010             | 0.020 | 0.030 |

Explanations
1) Cr+Cu+Mo+Ni≤ % 0.70

|                   | Mechanical Properties |                     |       |         |       |      |                 |      |                 |      |  |  |  |
|-------------------|-----------------------|---------------------|-------|---------|-------|------|-----------------|------|-----------------|------|--|--|--|
| Re <sup>(1)</sup> |                       |                     |       |         |       |      |                 |      |                 |      |  |  |  |
|                   |                       | N/mm²               | N/mm² | A       | (%)   | Town | ΚV <sub>C</sub> | T    | ΚV <sub>c</sub> |      |  |  |  |
| Colakoglu         | Ctondond              | Oalita              |       |         | I     | t    | Temp.           | min. | Temp.           | min. |  |  |  |
| Quality id        | Standard              | Quality             | min.  | min.    | min.  | min. | ۰ς              | J    | ۰۲              | J    |  |  |  |
| 86435             | DIN EN 10217-2        | P235GH              | 235   | 360-500 | 25    | 22   | 0               | 40   | 0               | 27   |  |  |  |
| 00433             | DIIN EIN 10217-2      | with max. 0.03 % Si |       |         | 25 23 |      | -10             | 28   | U               | 2/   |  |  |  |

- 1) Tensile tests are applied to "Transversal" test samples.
- 2) Impact test values are valid upto ≤16 mm in thickness. Impact tests can be carried out in transversal and longitudinal directions of coils.
- l: longitudinal t : transversal

|            | LPG TUBE STEELS             |         |       |      |      |      |       |       |       |                  |       |      |  |
|------------|-----------------------------|---------|-------|------|------|------|-------|-------|-------|------------------|-------|------|--|
|            | Standard: DIN EN 10120-2008 |         |       |      |      |      |       |       |       |                  |       |      |  |
|            | Chemical Composition (%)    |         |       |      |      |      |       |       |       |                  |       |      |  |
| Colakoglu  | Standard                    | Quality |       | C    | Si   | Mn   | Р     | S     | Al    | N <sup>(1)</sup> | Nb    | Ti   |  |
| Quality id | Stalluaru                   | Quality |       | max. | max. | min. | max.  | max.  | min.  | max.             | max.  | max. |  |
| 85245      | DIN EN 10120                | P245NB  | Stan. | 0.16 | 0.25 | 0.30 | 0.025 | 0.015 | 0.020 | 0.009            | 0.050 | 0.03 |  |
| 85265      | DIN EN 10120                | P265NB  | Stan. | 0.19 | 0.25 | 0.40 | 0.025 | 0.015 | 0.020 | 0.009            | 0.050 | 0.03 |  |
| 85310      | DIN EN 10120                | P310NB  | Stan. | 0.20 | 0.50 | 0.70 | 0.025 | 0.015 | 0.020 | 0.009            | 0.050 | 0.03 |  |
| 85355      | DIN EN 10120                | P355NB  | Stan. | 0.20 | 0.50 | 0.70 | 0.025 | 0.015 | 0.020 | 0.009            | 0.050 | 0.03 |  |

1) N content can be % 0.012 if (Al/N)  $\ge$  2.2 or steel includes Nb and Ti additions.

|            | Mechanical Properties                     |         |        |                   |     |          |  |  |  |  |  |  |  |
|------------|---|---------|--------|-------------------|-----|----------|--|--|--|--|--|--|--|
|            |   |         | Re     | Rm <sup>(1)</sup> | A(9 | 6)       |  |  |  |  |  |  |  |
| Colakoglu  | oglu Standard Quality N/mm² A80 (min.) A5 |         |        |                   |     |          |  |  |  |  |  |  |  |
| Quality id | Standard                                  | Quality | (min.) |                   | d<3 | 3≤ d ≤ 5 |  |  |  |  |  |  |  |
| 85245      | DIN EN 10120                              | P245NB  | 245    | 360 - 450         | 26  | 34       |  |  |  |  |  |  |  |
| 85265      | DIN EN 10120                              | P265NB  | 265    | 410 - 500         | 24  | 32       |  |  |  |  |  |  |  |
| 85310      | DIN EN 10120                              | P310NB  | 310    | 460 - 550         | 21  | 28       |  |  |  |  |  |  |  |
| 85355      | DIN EN 10120                              | P355NB  | 355    | 510 - 620         | 19  | 24       |  |  |  |  |  |  |  |

Explanations

1) Tensile tests are applied to "Transversal" test samples.

|            | UNALLOYED GENERAL STRUCTURAL STEEL                    |        |            |               |    |    |   |   |  |  |  |  |  |
|------------|---|--------|------------|---------------|----|----|---|---|--|--|--|--|--|
|            | Standard : JIS G3101                                  |        |            |               |    |    |   |   |  |  |  |  |  |
|            |   |        | Chemical C | omposition (9 | %) |    |   |   |  |  |  |  |  |
| Colakoglu  | Ctondond  | Oalitu |            | C             | Mn | Si | P | S |  |  |  |  |  |
| Quality id | Quality id Standard Quality max. max. max. max.       |        |            |               |    |    |   |   |  |  |  |  |  |
| 93400      | <b>93400</b> JIS G 3101 <b>SS400</b> Stan 0.050 0.050 |        |            |               |    |    |   |   |  |  |  |  |  |

|  | Mechanical Properties  |         |      |  |      |      |   |                                      |      |  |  |  |  |
|--|--|---------|------|--|------|------|---|--------------------------------------|------|--|--|--|--|
| Re <sup>(1)</sup> Rm <sup>(1)</sup> A(%) |  |         |      |  |      |      |   |                                      |      |  |  |  |  |
|  |  |         |      | N/mm²  |      |      | (d=thickness)   |                                      |      |  |  |  |  |
| Colakoglu                                | Standard   | Ouglitu | d≤16 | 16 <d≤40< th=""><th></th><th>d≤5</th><th>5<d≤16< th=""><th>16<d≤50< th=""><th>muh</th></d≤50<></th></d≤16<></th></d≤40<> |      | d≤5  | 5 <d≤16< th=""><th>16<d≤50< th=""><th>muh</th></d≤50<></th></d≤16<> | 16 <d≤50< th=""><th>muh</th></d≤50<> | muh  |  |  |  |  |
| Quality id                               | Stalluaru  | Quality | min. | min.   | min. | min. | min.  | min.                                 | mrb  |  |  |  |  |
| 93400                                    | 93400         JIS G 3101         \$\$5400         245         235         400-510         21         17         21 |         |      |  |      |      |   |                                      | 1.5d |  |  |  |  |

#### Explanations

1) Tensile tests are applied to "Longitudinal" test samples.

|            | BORON ADDED GENERAL STRUCTURAL STEELS                |         |  |      |      |    |      |      |     |  |  |  |  |
|------------|--|---------|--|------|------|----|------|------|-----|--|--|--|--|
|            | Standard: JIS G3101                                  |         |  |      |      |    |      |      |     |  |  |  |  |
|            | Chemical Composition (%)                             |         |  |      |      |    |      |      |     |  |  |  |  |
| Colakoglu  | Standard   | Ouslity |  | C    | Mn   | Si | P    | S    | В   |  |  |  |  |
| Quality id | Stalluaru  | Quality |  | max. | max. |    | max. | max. | ppm |  |  |  |  |
| 93420      | 93420 JIS G 3101 SS400 with B Stan 0.050 0.050 20-50 |         |  |      |      |    |      |      |     |  |  |  |  |

|            | Mechanical Properties                    |                 |      |   |         |      |  |                                   |      |  |  |  |  |
|------------|--|-----------------|------|---|---------|------|--|-----------------------------------|------|--|--|--|--|
|            | Re <sup>(1)</sup> Rm <sup>(1)</sup> A(%) |                 |      |   |         |      |  |                                   |      |  |  |  |  |
|            |  |                 |      | N/mm²   |         |      | (long.;180°)   |                                   |      |  |  |  |  |
| Colakoglu  | Ctondond                                 | Ouglitu         | d≤16 | 16 <d≤40< th=""><th></th><th>d≤5</th><th>5<d≤16< th=""><th>16<d≤50< th=""><th></th></d≤50<></th></d≤16<></th></d≤40<> |         | d≤5  | 5 <d≤16< th=""><th>16<d≤50< th=""><th></th></d≤50<></th></d≤16<> | 16 <d≤50< th=""><th></th></d≤50<> |      |  |  |  |  |
| Quality id | Standard                                 | Quality         | min. | min.  | min.    | min. | min.   | min.                              | mrb  |  |  |  |  |
| 93420      | JIS G 3101                               | SS400<br>with B | 245  | 235   | 400-510 | 21   | 17   | 21                                | 1.5d |  |  |  |  |

# Explanations

1) Tensile tests are applied to "Longitudinal" test samples.

|            | HOT ROLLED LOW CARBON COMMERCIAL QUALITY STEELS SUITABLE FOR COLD FORMING |         |                 |          |    |    |   |   |  |  |  |  |
|------------|---|---------|-----------------|----------|----|----|---|---|--|--|--|--|
|            | Standard : JIS G3131-2005   |         |                 |          |    |    |   |   |  |  |  |  |
|            |   | Cl      | nemical Composi | tion (%) |    |    |   |   |  |  |  |  |
| Colakoglu  | Chandand  | Ovality |                 | С        | Mn | Si | P | S |  |  |  |  |
| Quality id | Standard Quality Standard Quality   |         |                 |          |    |    |   |   |  |  |  |  |
| 93111      | <b>93111</b> JIS G 3131 <b>SPHC</b> Standard 0.15 0.60 - 0.050 0.050      |         |                 |          |    |    |   |   |  |  |  |  |

|            | LOW CARBON STEELS WITH BORON SUITABLE FOR COLD FORMING  |         |  |      |      |    |      |      |     |  |  |  |  |
|------------|---|---------|--|------|------|----|------|------|-----|--|--|--|--|
|            | Standard : JIS G3131-2005   |         |  |      |      |    |      |      |     |  |  |  |  |
|            | Chemical Composition (%)  |         |  |      |      |    |      |      |     |  |  |  |  |
| Colakoglu  | Standard  | Quality |  | C    | Mn   | Si | P    | S    | В   |  |  |  |  |
| Quality id | Stalluaru   | Quality |  | max. | max. |    | max. | max. | ppm |  |  |  |  |
| 93211      | 93211         JIS G 3131         SPHC with B         Standard         0.15         0.60         -         0.050         0.050         20-50 |         |  |      |      |    |      |      |     |  |  |  |  |

|            | Mechanical Properties |                |                   |           |                   |           |           |           |       |         |  |  |  |
|------------|-----------------------|----------------|-------------------|-----------|-------------------|-----------|-----------|-----------|-------|---------|--|--|--|
|            |                       |                | Rm <sup>(1)</sup> |           |                   | A(%)      |           |           |       | Bending |  |  |  |
|            |                       |                | N/mm²             |           | (d=thickness)     |           |           |           |       |         |  |  |  |
| Colakoglu  | Standard              | 0              |                   | 1.2≤d<1.6 | 1.6≤d<2.0         | 2.0≤d<2.5 | 2.5≤d<3.2 | 3.2≤d<4.0 | 4.0≤d | mrb     |  |  |  |
| Quality id | Standard              | Quality        | min.              | min.      | min.              | min.      | min.      | min.      |       | 3.2≤d   |  |  |  |
| 93211      | JIS G 3131            | SPHC<br>with B | 270               | 27        | 27 29 29 29 31 31 |           |           |           |       |         |  |  |  |

Explanations
1) Tensile tests are applied to "Longitudinal" test samples.

|            | HOT ROLLED LOW CARBON PIPE & PROFILE STEELS SUITABLE FOR COLD FORMING & GALVANIZING   |           |  |      |      |      |      |      |  |  |  |  |  |
|------------|---|-----------|--|------|------|------|------|------|--|--|--|--|--|
|            | Standard : JIS G3132-2005   |           |  |      |      |      |      |      |  |  |  |  |  |
|            | Chemical Composition (%)  |           |  |      |      |      |      |      |  |  |  |  |  |
| Colakoglu  | Standard  | Overliter |  | С    | Mn   | Si   | Р    | S    |  |  |  |  |  |
| Quality id | Standard  | Quality   |  | max. | max. | max. | max. | max. |  |  |  |  |  |
| 93270      | <b>93270</b> JIS G 3132 <b>SPHT-1</b> Standard 0.10 0.50 0.040 0.040 0.040  |           |  |      |      |      |      |      |  |  |  |  |  |
| 93340      | 93340         JIS G 3132         SPHT-2         Standard         0.18         0.60         0.35         0.040         0.040 |           |  |      |      |      |      |      |  |  |  |  |  |

|                                | Mechanical Properties |         |       |           |                                      |      |       |         |                           |  |  |  |
|--------------------------------|-----------------------|---------|-------|-----------|--------------------------------------|------|-------|---------|---------------------------|--|--|--|
| Rm <sup>(1)</sup> A(%) Bending |                       |         |       |           |                                      |      |       |         |                           |  |  |  |
|                                |                       |         | N/mm² |           | (d=thic                              |      | (long | .;180°) |                           |  |  |  |
| Colakoglu                      | Candoud               | 0       |       | 1.2≤d<1.6 | 2≤d<1.6 1.6≤d<3.0 3.0≤d<6.0 6.0≤d≤13 |      |       |         |                           |  |  |  |
| Quality id                     | Standard              | Quality | min.  | min.      | min.                                 | min. | min.  | 3.0≤d   | 3.0 <d≤13< th=""></d≤13<> |  |  |  |
| 93270                          | JIS G 3132            | SPHT-1  | 270   | 30        | 32                                   | 37   |       | 0.5d    |                           |  |  |  |
| 93340                          | JIS G 3132            | SPHT-2  | 340   | 25        | 27                                   | 32   | 1d    | 1.5d    |                           |  |  |  |

Explanations

1) Tensile tests are applied to "Longitudinal" test samples.

| ATMOSPHERE CORROSION RESISTANT STEELS   |          |         |  |      |    |                   |   |      |    |    |      |  |
|---|----------|---------|--|------|----|-------------------|---|------|----|----|------|--|
| Standard: JIS G3125 - 2004  |          |         |  |      |    |                   |   |      |    |    |      |  |
| Chemical Composition (%)  |          |         |  |      |    |                   |   |      |    |    |      |  |
| Colakoglu   | Standard | Ouslity |  | C    | Si | Mn <sup>(1)</sup> | P | S    | Cu | Cr | Ni   |  |
| Quality id  | Standard | Quality |  | max. |    | max.              |   | max. |    |    | max. |  |
| 93125 JIS G3125 SPA - H Standard 0.12 0.20 - 0.75 0.60 0.070 - 0.150 0.035 0.25 - 0.55 0.30 - 1.25 0.65 |          |         |  |      |    |                   |   |      |    |    |      |  |

# Explanations

1) Upper limit for Mn can be 1 % by agreement.

|            | Mechanical Properties |               |                  |         |   |          |     |              |        |               |  |  |
|------------|-----------------------|---------------|------------------|---------|---|----------|-----|--------------|--------|---------------|--|--|
|            |                       |               | Sample thickness | Re      | Rm <sup>(1)</sup>   | A(       | %)  | Bending      |        |               |  |  |
|            |                       |               | Sample unckness  | N/mm²   |   | A50 A200 |     | (long.;180°) |        |               |  |  |
| Colakoglu  | Standard              | Ouslity       |                  |         |   |          |     | mrb          |        |               |  |  |
| Quality id | Stalluaru             | Quality       | Quality          | Quality |   | (min.)   |     | (min.)       | (min.) | (d=thickness) |  |  |
| 02125      | JIS G3125             | CDA U         | d≤6              | 355     | 490   | 22       | 15  | 0.5 d        |        |               |  |  |
| 93125      |                       | JIS G3125 SPA | JIS G3125        | эгн - п | 6 <d≤16< td=""><td>355</td><td>490</td><td>22</td><td>15</td><td>1.5 d</td></d≤16<> | 355      | 490 | 22           | 15     | 1.5 d         |  |  |

1) Tensile tests are applied to "Longitudinal" test samples.

#### UNALLOYED GENERAL STRUCTURAL STEELS SUITABLE FOR GALVANIZING & BENDING **Standard: AS NZS 1594-2002** Chemical Composition (%) Mn Si P S Cr Colakoglu Cu Quality Standard Quality id max. max. max. max. max. max. max. min. HA250<sup>(1)</sup> 94250 AS NZS 1594 0.20 1.20 | 0.35 | 0.040 | 0.030 | 0.25 | 0.25 | 0.25 | 0.10 | 0.040 120 0.39 with max. 0.03 % Si

### Explanations

1) Nb+V=% 0.03 max.

|            | Mechanical Properties     |                              |      |      |     |     |      |   |     |      |                        |  |                   |
|------------|---------------------------|------------------------------|------|------|-----|-----|------|---|-----|------|------------------------|--|-------------------|
|            | Re Rm <sup>(1)</sup> A(%) |                              |      |      |     |     |      |   |     |      | Bending <sup>(2)</sup> |  |                   |
| Colakoglu  | u Standard Quality        |                              | N/n  | nm²  |     | d≤3 |      | 3 <d (trans.;="" 180°),="" mdb<="" th=""><th>, mdb</th></d> |     |      |                        | , mdb  |                   |
| Quality id | Stalluaru                 | Quality                      | min. | min. | A50 | A80 | A200 | A50   | A80 | A200 | d≤3                    | 3 <d≤5< th=""><th>5<d< th=""></d<></th></d≤5<> | 5 <d< th=""></d<> |
| 94250      | AS NZS 1594               | HA250<br>with max. 0.03 % Si | 250  | 350  | 22  | 20  | 16   | 26  | 24  | 17   | d                      | d  | 2d                |

## Explanations

- 1) Tensile tests are applied to "Longitudinal" test samples.
- 2) Bending tests are applied to "Transverse" test samples.

|            | UNALI  | LOYED GENERAL | STRU | CTUR | AL ST | EELS S | SUITAI | BLE FC | OR GA | LVANI | ZING | & BEN | DING |       |      |
|------------|--|---------------|------|------|-------|--------|--------|--------|-------|-------|------|-------|------|-------|------|
|            | Standard: AS NZS 1594-2002   |               |      |      |       |        |        |        |       |       |      |       |      |       |      |
|            | Chemical Composition (%)   |               |      |      |       |        |        |        |       |       |      |       |      |       |      |
| Colakoglu  | Standard   | Quality       |      | C    | Mn    | Si     | P      | S      | Cr    | Ni    | Cu   | Al    | Ti   | N ppm | Ceq  |
| Quality id | Stanuaru   | Quality       |      | max. | max.  | max.   | max.   | max.   | max.  | max.  | max. | min.  | max. | max.  | max. |
| 94350      | 94350 AS NZS 1594 HA350 <sup>(1)</sup> with max. 0.03 % Si Stan. 0.20 1.6 0.35 0.040 0.030 0.25 0.25 0.25 0.25 0.10 - 120 0.44 |               |      |      |       |        |        |        |       |       |      |       |      |       |      |

# ${\bf Explanations}$

1) V = % 0.10 max.or Nb+V+Ti = % 0.15 max.

|  | Mechanical Properties     |        |     |      |     |     |      |   |     |                        |     |  |                   |
|--|---------------------------|--------|-----|------|-----|-----|------|---|-----|------------------------|-----|--|-------------------|
|  | Re Rm <sup>(1)</sup> A(%) |        |     |      |     |     |      |   |     | Bending <sup>(2)</sup> |     |  |                   |
| Colakoglu  | Ctondoud                  | Oalitu | N/  | mm²  |     | d≤3 |      | 3 <d (trans.;="" 180°),="" mdb<="" th=""><th>mdb</th></d> |     |                        |     | mdb  |                   |
| Quality id   | Standard Quality          |        |     | min. | A50 | A80 | A200 | A50   | A80 | A200                   | d≤3 | 3 <d≤5< th=""><th>5<d< th=""></d<></th></d≤5<> | 5 <d< th=""></d<> |
| 94350 AS NZS 1594 HA350 <sup>(1)</sup> with max. 0.03 % Si |                           | 350    | 430 | 18   | 16  | 14  | 22   | 20  | 15  | 2d                     | 2d  | 3d   |                   |

### Explanations

- 1) Tensile tests are applied to "Longitudinal" test samples.
- 2) Bending tests are applied to "Transverse" test samples.

|  | GENERAL ST                             | ructu   | RALS | STEELS S | UITABLE | FOR I | HEAT 1 | REAT | MENT |    |    |  |
|--|--|---------|------|----------|---------|-------|--------|------|------|----|----|--|
|  | Standard : DIN EN 10083 - Part 2 -2006 |         |      |          |         |       |        |      |      |    |    |  |
|  | Chemical Composition (%)               |         |      |          |         |       |        |      |      |    |    |  |
| Colakoglu  | Ctandard                               | Ouglity |      | С        | Mn      | Si    | P      | S    | Cr   | Ni | Мо |  |
| Quality id   | Standard Quality                       |         |      |          |         |       |        |      |      |    |    |  |
| 98628 DIN EN 10083-2 28Mn6 Stan. 0.25-0.32 1.30-1.65 0.40 0.030 0.010 0.40 0.40 0.10 |  |         |      |          |         |       |        |      |      |    |    |  |

#### Explanations

1) There is no mechanical test guarantee for heat treatment steels

|   | GENERAL                               | . STRUC | TURA | L STEELS | SUITABL | E FOR HE | AT TREAT | MENT |   |  |  |  |  |
|---|---------------------------------------|---------|------|----------|---------|----------|----------|------|---|--|--|--|--|
|   | Standard : DIN EN 10083- Part 3 -2006 |         |      |          |         |          |          |      |   |  |  |  |  |
|   | Chemical Composition (%)              |         |      |          |         |          |          |      |   |  |  |  |  |
| Colakoglu   | Ctondond                              | 0       |      | C        | Mn      | Si       | P        | S    | В |  |  |  |  |
| Quality id Standard Quality max. max. max. max. ppm                         |                                       |         |      |          |         |          |          |      |   |  |  |  |  |
| 98530 DIN EN 10083-3 30MnB5 Stan. 0.27-0.33 1.15-1.45 0.40 0.035 0.040 8-50 |                                       |         |      |          |         |          |          |      |   |  |  |  |  |

#### Explanations

1) There is no mechanical test guarantee for heat treatment steels

| HOT ROLLED LOW ALLOY STEELS SUITABLE FOR HEAT TREATMENT                              |          |         |  |   |    |    |   |   |    |    |  |  |
|--|----------|---------|--|---|----|----|---|---|----|----|--|--|
| Standard : DIN EN 10083-3-2006   |          |         |  |   |    |    |   |   |    |    |  |  |
| Chemical Composition (%)   |          |         |  |   |    |    |   |   |    |    |  |  |
| Colakoglu  | Chamdand | Ovelity |  | С | Mn | Si | P | S | Cr | Мо |  |  |
| Quality id Standard Quality max. max. max. max. max. max. max.                       |          |         |  |   |    |    |   |   |    |    |  |  |
| 98442 DIN EN 10083-3 42CrMo4 Stan. 0.38-0.45 0.60 0.40 0.035 0.035 0.9-1.2 0.15-0.30 |          |         |  |   |    |    |   |   |    |    |  |  |

# Explanations

1) There is no mechanical test guarantee for heat treatment steels

# HIGH YIELD STRENGTH STEELS SUITABLE FOR COLD FORMING & BENDING

#### Standard: DIN EN 10149 - Part2 - 1995

#### Chemical Composition (%)

| Cnemical Composition (%) |                |                        |       |      |      |      |       |       |       |                         |                   |                   |
|--------------------------|----------------|------------------------|-------|------|------|------|-------|-------|-------|-------------------------|-------------------|-------------------|
| Colakoglu                | Standard       | O ! i t (1)            |       | C    | Mn   | Si   | P     | S     | Al    | <b>V</b> <sup>(2)</sup> | Ti <sup>(2)</sup> | Nb <sup>(2)</sup> |
| Quality id               | Standard       | Quality <sup>(1)</sup> |       | max. | max. | max. | max.  | max.  | min   | max.                    | max.              | max.              |
| 36315                    | DIN EN 10149   | S315MC                 | Stan. | 0.12 | 1.30 | 0.50 | 0.025 | 0.020 | 0.015 | 0.20                    | 0.15              | 0.09              |
| 36355                    | DIN EN 10149   | S355MC                 | Stan. | 0.12 | 1.50 | 0.50 | 0.025 | 0.020 | 0.015 | 0.20                    | 0.15              | 0.09              |
| 36420                    | DIN EN 10149   | S420MC                 | Stan. | 0.12 | 1.60 | 0.50 | 0.025 | 0.015 | 0.015 | 0.20                    | 0.15              | 0.09              |
| 36421                    | DIN EN 10149-2 | S420MC-Low Mn          | Stan. | 0.12 | 1.60 | 0.50 | 0.025 | 0.015 | 0.015 | 0.20                    | 0.15              | 0.09              |
| 36460                    | DIN EN 10149   | S460MC                 | Stan. | 0.12 | 1.60 | 0.50 | 0.025 | 0.015 | 0.015 | 0.20                    | 0.15              | 0.09              |
| 36500                    | DIN EN 10149   | S500MC                 | Stan. | 0.12 | 1.70 | 0.50 | 0.025 | 0.015 | 0.015 | 0.20                    | 0.15              | 0.09              |
| 36550                    | DIN EN 10149-2 | S550MC                 | Stan. | 0.12 | 1.80 | 0.50 | 0.025 | 0.015 | 0.015 | 0.09                    | 0.15              | 0.20              |

### Explanations

1) All grades are produced by thermo mechanical rolling method.

2) Nb+Ti+V≤ % 0.22

|            | Mechanical Properties |               |       |                   |      |      |             |               |  |  |  |  |
|------------|-----------------------|---------------|-------|-------------------|------|------|-------------|---------------|--|--|--|--|
|            |                       |               |       |                   | A(   | %)   | Impact (2)  | Bending       |  |  |  |  |
| Colakoglu  | Ctdd                  | 01:4          | Re    | Rm <sup>(1)</sup> | d<3  | d≥ 3 | KVc (long.) | (trans.),180° |  |  |  |  |
| Quality id | Standard              | Quality       | N/mm² |                   | A80  | A5   | Temp. =20°C | mdb           |  |  |  |  |
|            |                       |               | min.  |                   | min. | min. | min.        | d: thickness  |  |  |  |  |
| 36315      | DIN EN 10149          | S315MC        | 315   | 390 - 510         | 20   | 24   | 40 J        | 0             |  |  |  |  |
| 36355      | DIN EN 10149          | S355MC        | 355   | 430 - 550         | 19   | 23   | 40 J        | 0.5 d         |  |  |  |  |
| 36420      | DIN EN 10149          | S420MC        | 420   | 480 - 620         | 16   | 19   | 40 J        | 0.5 d         |  |  |  |  |
| 36421      | DIN EN 10149-2        | S420MC-Low Mn | 420   | 480 - 620         | 16   | 19   | 40 J        | 0.5 d         |  |  |  |  |
| 36460      | DIN EN 10149          | S460MC        | 460   | 520 - 670         | 14   | 17   | 40 J        | 1 d           |  |  |  |  |
| 36500      | DIN EN 10149          | S500MC        | 500   | 550 - 700         | 12   | 14   | 40 J        | 1 d           |  |  |  |  |
| 36550      | DIN EN 10149-2        | S550MC        | 550   | 600 - 760         | 12   | 14   | 40 J        | 1.5 d         |  |  |  |  |

# Explanations

1) Tensile tests are applied to "Longitudinal" test samples.

2) Impact tests are not carried out if nominal thickness is lesser than 6 mm.

|            | MICRO ALLOYED STEELS SUITABLE FOR COLD ROLLING & GALVANIZING                               |                        |                        |          |          |          |                        |       |       |      |      |      |      |    |                  |                   |                   |
|------------|--|------------------------|------------------------|----------|----------|----------|------------------------|-------|-------|------|------|------|------|----|------------------|-------------------|-------------------|
|            | Standard: DIN EN 10149 - Part 2 -1995  |                        |                        |          |          |          |                        |       |       |      |      |      |      |    |                  |                   |                   |
|            | Chemical Composition (%)   |                        |                        |          |          |          |                        |       |       |      |      |      |      |    |                  |                   |                   |
| Colakoglu  | Standard   | Standard               | Standard               | Standard | Standard | Standard | Ouality <sup>(1)</sup> |       | C     | Mn   | Si   | P    | S    | Al | V <sup>(2)</sup> | Ti <sup>(2)</sup> | Nb <sup>(2)</sup> |
| Quality id | Standard   | Quality <sup>(1)</sup> | Quality <sup>(1)</sup> |          | max.     | max.     | max.                   | max.  | max.  | min. | max. | max. | max. |    |                  |                   |                   |
| 37315      | DIN EN 10149   | S315MC                 | Stan.                  | 0.12     | 1.30     | 0.50     | 0.025                  | 0.020 | 0.015 | 0.20 | 0.15 | 0.09 |      |    |                  |                   |                   |
| 37355      | DIN EN 10149   | S355MC                 | Stan.                  | 0.12     | 1.50     | 0.50     | 0.025                  | 0.020 | 0.015 | 0.20 | 0.15 | 0.09 |      |    |                  |                   |                   |
| 37420      | <b>20</b> DIN EN 10149 <b>S420MC</b> Stan. 0.12 1.60 0.50 0.025 0.015 0.015 0.20 0.15 0.09 |                        |                        |          |          |          |                        |       |       |      |      |      |      |    |                  |                   |                   |
| 37460      | DIN EN 10149   | S460MC                 | Stan.                  | 0.12     | 1.60     | 0.50     | 0.025                  | 0.015 | 0.015 | 0.20 | 0.15 | 0.09 |      |    |                  |                   |                   |

#### Explanation

1) All grades are produced by thermo mechanical rolling method.

2) Nb+Ti+V≤ % 0.22

| Mechanical Properties |              |         |      |                   |      |      |                         |               |  |  |  |
|-----------------------|--------------|---------|------|-------------------|------|------|-------------------------|---------------|--|--|--|
|                       |              |         |      |                   | A(   | %)   | Impact (2)              | Bending       |  |  |  |
| Colakoglu             | C+           | 0!!4    | Re   | Rm <sup>(1)</sup> | d<3  | d≥ 3 | KV <sub>c</sub> (long.) | (trans.,180°) |  |  |  |
| Quality id            | Standard     | Quality | N/r  | nm²               | A80  | A5   | Temp. =20°C             | mdb           |  |  |  |
|                       |              |         | min. |                   | min. | min. | min                     | d: thickness  |  |  |  |
| 37315                 | DIN EN 10149 | S315MC  | 315  | 390 - 510         | 20   | 24   | 40 J                    | 0             |  |  |  |
| 37355                 | DIN EN 10149 | S355MC  | 355  | 430 - 550         | 19   | 23   | 40 J                    | 0.5 d         |  |  |  |
| 37420                 | DIN EN 10149 | S420MC  | 420  | 480 - 620         | 16   | 19   | 40 J                    | 0.5 d         |  |  |  |
| 37460                 | DIN EN 10149 | S460MC  | 420  | 480 - 620         | 16   | 19   | 40 J                    | 0.5 d         |  |  |  |

## Explanations

1) Tensile tests are applied to "Longitudinal" test samples.

2) Impact tests are not carried out if nominal thickness is lesser than 6 mm.

|            |  |         |  | PF | RESSU | RE PIF | E STE | ELS |    |    |    |    |    |    |   |
|------------|--|---------|--|----|-------|--------|-------|-----|----|----|----|----|----|----|---|
|            | Standard: DIN EN 10217 Part 1-2005   |         |  |    |       |        |       |     |    |    |    |    |    |    |   |
|            | Chemical Composition (%)   |         |  |    |       |        |       |     |    |    |    |    |    |    |   |
| Colakoglu  | Ctandard   | Ouglity |  | C  | Mn    | Si     | P     | S   | Cr | Ni | Cu | Мо | Nb | Ti | V |
| Quality id | Quality id Standard Quality max. max. max. max. max. max. max. max.  |         |  |    |       |        |       |     |    |    |    |    |    |    |   |
| 94235      | 94235 DIN EN 10217-1 P235TR1 <sup>(1)</sup> Stan. 0.16 1.20 0.35 0.025 0.020 0.30 0.30 0.30 0.08 0.010 0.04 0.02 |         |  |    |       |        |       |     |    |    |    |    |    |    |   |

# Explanations

1) Cu+Cr+Mo+Ni = 0.70 max

|            |                |         |      | Mecha   | anical Pro        | perties                |      |       |                 |           |                        |       |                        |
|------------|----------------|---------|------|---|-------------------|------------------------|------|-------|-----------------|-----------|------------------------|-------|------------------------|
|            |                |         | F    | Re <sup>(1)</sup>   | Rm <sup>(1)</sup> | Rm <sup>(1)</sup> A(%) |      | ()    |                 | mpact (lo | ng.) <sup>(2)</sup> mi | n.    |                        |
|            |                |         |      | N/mm²   |                   | A(70)                  |      | Tomn  | ΚV <sub>c</sub> | Tomn      | KV <sub>c</sub>        | Temp. | <b>KV</b> <sub>c</sub> |
| Colakoglu  | Standard       | Ouglitu | d≤16 | 16 <d≤40< th=""><th></th><th>I</th><th>t</th><th>Temp.</th><th>I</th><th>Temp.</th><th>I</th><th>remp.</th><th>t</th></d≤40<> |                   | I                      | t    | Temp. | I               | Temp.     | I                      | remp. | t                      |
| Quality id | Stallgarg      | Quality | min. | min.  | min.              | min.                   | min. | ۰c    | J               | ۰C        | J                      | ۰C    | J                      |
| 94235      | DIN EN 10217-1 | P235TR1 | 235  | 225   | 360-500           | 25                     | 23   | -     | -               | -         | -                      | -     | -                      |

#### Explanations

1) Tensile tests are applied to "Transversal" test samples.

2) Impact tests are applied to "Transversal" and "Longitudinal" test samples.

|                         | STEELS FOR PIPE LINES |                        |       |                         |                   |            |       |      |      |      |      |  |  |  |  |
|-------------------------|-----------------------|------------------------|-------|-------------------------|-------------------|------------|-------|------|------|------|------|--|--|--|--|
|                         |                       |                        |       | 2                       | Standard: A       | PI 5L-2007 |       |      |      |      |      |  |  |  |  |
|                         |                       |                        |       | Ch                      | emical Con        | position ( | %)    |      |      |      |      |  |  |  |  |
| Colakoglu               | Standard              | Quality <sup>(4)</sup> |       | <b>C</b> <sup>(3)</sup> | Mn <sup>(3)</sup> | P          | S     | Cr   | Ni   | Cu   | Мо   |  |  |  |  |
| Quality id              | Stalluaru             | Quality                |       | max.                    | max.              | max.       | max.  | max. | max. | max. | max. |  |  |  |  |
| 95130                   | API 5L                | A PSL1<br>L210         | Stan. | 0.22                    | 0.90              | 0.030      | 0.030 | 0.50 | 0.50 | 0.50 | 0.15 |  |  |  |  |
| 95135 <sup>(1)(2)</sup> | API 5L                | B PSL1<br>L245         | Stan. | 0.26                    | 1.20              | 0.030      | 0.030 | 0.50 | 0.50 | 0.50 | 0.15 |  |  |  |  |
| 95142 <sup>(1)</sup>    | API 5L                | X42 PSL1<br>L290       | Stan. | 0.26                    | 1.30              | 0.030      | 0.030 | 0.50 | 0.50 | 0.50 | 0.15 |  |  |  |  |
| 95146 <sup>(1)</sup>    | API 5L                | X46 PSL1<br>L320       | Stan. | 0.26                    | 1.40              | 0.030      | 0.030 | 0.50 | 0.50 | 0.50 | 0.15 |  |  |  |  |
| 95152 <sup>(1)</sup>    | API 5L                | X52 PSL1<br>L360       | Stan. | 0.26                    | 1.40              | 0.030      | 0.030 | 0.50 | 0.50 | 0.50 | 0.15 |  |  |  |  |
| 95156 <sup>(1)</sup>    | API 5L                | X56 PSL1<br>L390       | Stan. | 0.26                    | 1.40              | 0.030      | 0.030 | -    | -    | -    | -    |  |  |  |  |
| 95160 <sup>(1)</sup>    | API 5L                | X60 PSL1<br>L415       | Stan. | 0.26                    | 1.40              | 0.030      | 0.030 | -    | -    | -    | -    |  |  |  |  |
| 95165(1)                | API 5L                | X65 PSL1<br>L450       | Stan. | 0.26                    | 1.45              | 0.030      | 0.030 | -    | -    | -    | -    |  |  |  |  |
| 95170 <sup>(1)</sup>    | API 5L                | X70 PSL1<br>L485       | Stan. | 0.26                    | 1.65              | 0.030      | 0.030 | -    | -    | -    | -    |  |  |  |  |

# **Explanations**1) Nb+V+Ti≤0.15

2) Nb+V≤0.06

|            |          | Mech             | anical Properties |                   |        |
|------------|----------|------------------|-------------------|-------------------|--------|
|            |          |                  | Re                | Rm <sup>(1)</sup> | Af (%) |
| Colakoglu  | Standard | Quality          | N/mm              | 2                 |        |
| Quality id | Stanuaru | Quality          | min.              | min.              | min.   |
| 95130      | API 5L   | A PSL1<br>L210   | 210               | 335               | (2)    |
| 95135      | API 5L   | B PSL1<br>L245   | 245               | 415               | (2)    |
| 95142      | API 5L   | X42 PSL1<br>L290 | 290               | 415               | (2)    |
| 95146      | API 5L   | X46 PSL1<br>L320 | 320               | 435               | (2)    |
| 95152      | API 5L   | X52 PSL1<br>L360 | 360               | 460               | (2)    |
| 95156      | API 5L   | X56 PSL1<br>L390 | 390               | 490               | (2)    |
| 95160      | API 5L   | X60 PSL1<br>L415 | 415               | 520               | (2)    |
| 95165      | API 5L   | X65 PSL1<br>L450 | 450               | 535               | (2)    |
| 95170      | API 5L   | X70 PSL1<br>L485 | 485               | 570               | (2)    |

# Explanations

1) Tensile tests are applied to "Transversal" test samples.

2) Af % = 1940 Axc0.2 / U0.9 (Axc : Cross sectional area,mm2 ; U : Minimum tensile strength, N / mm2)

<sup>3)</sup> For each reduction of 0.01 % for carbon, an increase of 0.05 % for manganese is permitted, up to a maximum of 1.65 % for L245, L290, L320 and L360 grades, 1.75 % for X56, X60 and X65 grades, 2.00% for X70 grade.
4) For L360/X52 and lower grades, 0.5 %, Cr : % 0.5, Ni : % 0.5 and Mo : % 0.15 is permitted.

|                      |           |                    |       | STE   | ELS FO            | R PIPE     | LINES  |       |      |      |      |         |         |
|----------------------|-----------|--------------------|-------|-------|-------------------|------------|--------|-------|------|------|------|---------|---------|
|                      |           |                    |       | S     | tandard           | : API 5L-: | 2007   |       |      |      |      |         |         |
|                      |           |                    |       | Che   | emical Co         | ompositi   | on (%) |       |      |      |      |         |         |
| Colakoglu            | Standard  | Quality            |       | C (5) | Mn <sup>(5)</sup> | Si         | P      | S     | Ti   | V    | Nb   | C equiv | /alence |
| Quality id           | Stalluaru | Quality            |       | max.  | max.              | max.       | max.   | max.  | max. | max. | max. | CEIIW   | CEPCM   |
| 95035 <sup>(2)</sup> | API 5L    | BN PSL2<br>L245N   | Stan. | 0.24  | 1.20              | 0.40       | 0.025  | 0.015 | 0.04 | (1)  | (1)  | 0.43    | 0.25    |
| 95042 <sup>(2)</sup> | API 5L    | X42N PSL2<br>L290N | Stan. | 0.24  | 1.20              | 0.40       | 0.025  | 0.015 | 0.04 | 0.06 | 0.05 | 0.43    | 0.25    |
| 95046(2,3)           | API 5L    | X46N PSL2<br>L320N | Stan. | 0.24  | 1.40              | 0.40       | 0.025  | 0.015 | 0.04 | 0.07 | 0.05 | 0.43    | 0.25    |
| 95052(2,3)           | API 5L    | X52M PSL2<br>L360M | Stan. | 0.22  | 1.40              | 0.45       | 0.025  | 0.015 | (3)  | (3)  | (3)  | 0.43    | 0.25    |
| 95056(2,3)           | API 5L    | X56M PSL2<br>L390M | Stan. | 0.22  | 1.40              | 0.45       | 0.025  | 0.015 | (3)  | (3)  | (3)  | 0.43    | 0.25    |
| 95060 <sup>(4)</sup> | API 5L    | X60M PSL2<br>L415M | Stan. | 0.12  | 1.60              | 0.45       | 0.025  | 0.015 | (3)  | (3)  | (3)  | 0.43    | 0.25    |
| 95065(4)             | API 5L    | X65M PSL2<br>L450M | Stan. | 0.12  | 1.60              | 0.45       | 0.025  | 0.015 | (3)  | (3)  | (3)  | 0.43    | 0.25    |
| 95070(4)             | API 5L    | X70M PSL2<br>L485M | Stan. | 0.12  | 1.60              | 0.45       | 0.025  | 0.015 | (3)  | (3)  | (3)  | 0.43    | 0.25    |

1) Nb+V≤0.06

2) Cu 0.5 % , Cr 0.3 %, Ni 0.3 % and Mo 0.15%

3) Nb+V+Ti≤0.15

4) Cu 0.5 % , Cr 0.5 %, Ni 0.5 % and Mo 0.5%

5) For each reduction of 0.01 % for carbon, an increase of 0.05 % for manganese is permitted, up to a maximum of 1.50 for X42PSL2, X46PSL2 and X52PSL2 1.65 % for X56PSL2, X60PSL2 and X65PSL2 grades and up to a maximum 2.00 % for X70PSL2 grade.

|            |           |                    |      | Mecha | nical Prope | rties            |         |                       |                        |                  |
|------------|-----------|--------------------|------|-------|-------------|------------------|---------|-----------------------|------------------------|------------------|
|            |           |                    | F    | Re    | Rr          | n <sup>(1)</sup> | A50 (%) | Impact <sup>(3)</sup> | (trans.)               | DWTT<br>(trans.) |
| Colakoglu  | Standard  | Ouglity            |      | N/n   | nm²         |                  |         | Temp.                 | KV <sub>c</sub> (min.) | shear area %     |
| Quality id | Stalluaru | Quality            | min. | max.  | min.        | max.             | min.    | °C                    | J                      | min.             |
| 95035      | API 5L    | BN PSL2<br>L245N   | 245  | 450   | 415         | 760              | (2)     | 0                     | 40                     | 85               |
| 95042      | API 5L    | X42N PSL2<br>L290N | 290  | 495   | 415         | 760              | (2)     | 0                     | 40                     | 85               |
| 95046      | API 5L    | X46N PSL2<br>L320N | 320  | 525   | 435         | 760              | (2)     | 0                     | 40                     | 85               |
| 95052      | API 5L    | X52M PSL2<br>L360M | 360  | 530   | 460         | 760              | (2)     | 0                     | 40                     | 85               |
| 95056      | API 5L    | X56M PSL2<br>L390M | 390  | 545   | 490         | 760              | (2)     | 0                     | 40                     | 85               |
| 95060      | API 5L    | X60M PSL2<br>L415M | 415  | 565   | 520         | 760              | (2)     | 0                     | 40                     | 85               |
| 95065      | API 5L    | X65M PSL2<br>L450M | 450  | 600   | 535         | 760              | (2)     | 0                     | 54                     | 85               |
| 95070      | API 5L    | X70M PSL2<br>L485M | 485  | 635   | 570         | 760              | (2)     | 0                     | 54                     | 85               |

# Explanations

1) Tensile tests are applied to "Transversal" test samples.

2) A50 % = 1944 So0.2 / U0.9 (S0 : Cross sectional area,mm2 ; U : tensile strength N / mm2)

3) Impact tests are not carried out if nominal thickness is lesser than 6 mm.

4) Impact tests are carried out if it is customer's request in order.

5) DWT tests are applied to "Transverse" test samples.

|            | STEELS FOR CASING AND / OR TUBING |                                |       |                  |             |           |       |       |               |      |       |      |  |  |
|------------|-----------------------------------|--------------------------------|-------|------------------|-------------|-----------|-------|-------|---------------|------|-------|------|--|--|
|            |                                   |                                |       | <b>Standard:</b> | API 5CT -20 | 05        |       |       |               |      |       |      |  |  |
|            | Chemical Composition (%)          |                                |       |                  |             |           |       |       |               |      |       |      |  |  |
| Colakoglu  | Standard                          | Quality                        |       | C                | Mn          | Si        | P     | S     | Cr            | Ni   | Sn    | Cu   |  |  |
| Quality id | Stalluaru                         | Quality                        |       | max.             | max.        | max.      | max.  | max.  | max.          | max. | max.  | min. |  |  |
| 95155      | API 5CT                           | J55 regular<br>Casing & Tubing | Stan. | 0.17023          | 0.90-1.45   | 0.30      | 0.020 | 0.015 | 0.10          | 0.10 | 0.015 | 0.15 |  |  |
| 95254      | API 5CT                           | J55<br>Upgradeable<br>(Tubing) | Stan. | 0.25-0.30        | 1.20-1.40   | 0.15-0.25 | 0.015 | 0.005 | 0.10          | 0.07 | 0.012 | 0.15 |  |  |
| 95255      | API 5CT                           | J55<br>Upgradeable<br>(Casing) | Stan. | 0.23-0.27        | 1.20-1.40   | 0.15-0.30 | 0.020 | 0.005 | 0.15-<br>0.35 | 0.07 | 0.012 | 0.15 |  |  |
| 95256      | API 5CT                           | J55<br>Upgradeable             | Stan. | 0.23-0.27        | 1.20-1.40   | 0.15-0.30 | 0.020 | 0.010 | -             | -    | -     | -    |  |  |

|            | Chemical Composition (%) |                                |       |             |       |       |       |     |     |       |      |  |  |  |  |
|------------|--------------------------|--------------------------------|-------|-------------|-------|-------|-------|-----|-----|-------|------|--|--|--|--|
| Colakoglu  | Standard                 | Oalitu                         |       | Al          | Мо    | V     | Ti    | N   | В   | Ca    | Nb   |  |  |  |  |
| Quality id | Standard                 | Quality                        |       | min.        | max.  | max.  | max.  | ppm | ppm | ppm   | max. |  |  |  |  |
| 95155      | API 5CT                  | J55 regular<br>Casing & Tubing | Stan. | 0.05        | 0.08  | 0.06  | 0.020 | 100 | 5   | 15-50 | 0.05 |  |  |  |  |
| 95254      | API 5CT                  | J55<br>Upgradeable<br>(Tubing) | Stan. | 0.015-0.050 | 0.030 | 0.008 | 0.010 | 90  | 5   | 15-50 | -    |  |  |  |  |
| 95255      | API 5CT                  | J55<br>Upgradeable<br>(Casing) | Stan. | 0.045       | 0.030 | 0.008 | 0.010 | 100 | 5   | 15-50 | -    |  |  |  |  |
| 95256      | API 5CT                  | J55<br>Upgradeable             | Stan. | -           | -     | 0.010 | -     | -   | 5   | -     | -    |  |  |  |  |

|            |          |                                | Mec  | hanical Prop | erties |      |          |        |                        |
|------------|----------|--------------------------------|------|--------------|--------|------|----------|--------|------------------------|
| Colakoglu  | C4       | 0                              | R    | le           | Rm     | 1)   | AFO (0/) | Impact | (long.) <sup>(2)</sup> |
| Quality id | Standard | Quality                        |      | N/mı         | m²     |      | A50 (%)  | Temp.  | KV <sub>c</sub> (min.) |
|            |          |                                | min. | max.         | min.   | max. | min.     | °C     | J                      |
| 95155      | API 5CT  | J55 regular<br>Casing & Tubing | 400  | 570          | 550    | _    | 28       | 0      | 27                     |
| 95254      | API 5CT  | J55<br>Upgradeable<br>(Tubing) | 400  | 570          | 550    | _    | 28       | 0      | 27                     |
| 95255      | API 5CT  | J55<br>Upgradeable<br>(Casing) | 400  | 570          | 550    | _    | 28       | 0      | 27                     |
| 95256      | API 5CT  | J55<br>Upgradeable             | 400  | 570          | 550    | _    | 28       | 0      | 27                     |

- 1) Tensile and Impact tests are applied to "Longitudinal" test samples.
- 2) Impact tests are not carried out if nominal thickness is lesser than 6 mm.

|  | UNALLOYED GENERAL STRUCTURAL STEELS (FLOOR PLATE)        |         |  |                         |                     |      |      |      |  |  |  |  |  |
|--|--|---------|--|-------------------------|---------------------|------|------|------|--|--|--|--|--|
|  | Standard: ASTM A36-2005 Floor Plate Standard : ASTM A786 |         |  |                         |                     |      |      |      |  |  |  |  |  |
|  | Chemical Composition (%)                                 |         |  |                         |                     |      |      |      |  |  |  |  |  |
| Colakoglu  | Standard   | Ouglitu |  | <b>C</b> <sup>(2)</sup> | Mn <sup>(1,2)</sup> | Si   | P    | S    |  |  |  |  |  |
| Quality id   | Standard   | Quality |  | max.                    |                     | max. | max. | max. |  |  |  |  |  |
| 56435 <sup>(3)</sup> ASTM A36: 2005         ASTM A36<br>ASTM A786         Standard         0.26         0.80-1.20         0.40         0.040         0.050 |  |         |  |                         |                     |      |      |      |  |  |  |  |  |

- 1) Upper limit for Mn does not apply if the thickness of strips are 20 mm and thinner.
- 2) For each reduction of 0.01 % for carbon, an increase of 0.06 % for manganese is permitted, up to a maximum of 1.35
- 3) Optionally, Cu 0.20 % is permitted.

|            |                |                       | Mechanica | l Properties      | ;    |      |       |                 |
|------------|----------------|-----------------------|-----------|-------------------|------|------|-------|-----------------|
|            |                |                       | Re        | Rm <sup>(1)</sup> | A(%) |      | Impa  | ct (2)(3)       |
| Colakoglu  | Chandand       | Ouglitu               | N/n       | nm²               | A50  | A200 | Temp. | ΚV <sub>c</sub> |
| Quality id | Standard       | Quality               | (min.)    | (min.)            | min. | min. | C     | J               |
| 56435      | ASTM A36: 2005 | ASTM A36<br>ASTM A786 | 250       | 400 - 550         | 23   | 20   | -20   | 40              |

- 1) Tensile tests are applied to "Transversal" test samples.
- 2) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 3) Impact tests are carried out if it is customer's request in order.

| U                    | JNALLOYED G  | ENERAL STRI |  | STEELS S<br>PLATE)      | SUITABLE I          | OR GALV | /ANIZING |   |  |  |  |  |  |
|----------------------|--|-------------|--|-------------------------|---------------------|---------|----------|---|--|--|--|--|--|
|                      | Standard: ASTM A36-2005 Floor Plate Standard : ASTM A786   |             |  |                         |                     |         |          |   |  |  |  |  |  |
|                      | Chemical Composition (%)   |             |  |                         |                     |         |          |   |  |  |  |  |  |
| Colakoglu            | Ctandard   | Ouslitu     |  | <b>C</b> <sup>(2)</sup> | Mn <sup>(1,2)</sup> | Si      | P        | S |  |  |  |  |  |
| Quality id           | Quality d Quality max. max. max. max.  |             |  |                         |                     |         |          |   |  |  |  |  |  |
| 56437 <sup>(3)</sup> | 56437 <sup>(3)</sup> ASTM A36: 2005         ASTM A36<br>ASTM A786         Standard         0.26         0.80-1.20         0.40         0.040         0.050 |             |  |                         |                     |         |          |   |  |  |  |  |  |

### Explanations

- 1) Upper limit for Mn does not apply if the thickness of strips are 20 mm and thinner.
  2) For each reduction of 0.01 % for carbon, an increase of 0.06 % for manganese is permitted, up to a maximum of 1.35
- 3) Optionally, Cu 0.20 % is permitted.

| Mechanical Properties |                |                       |   |           |        |      |       |                 |   |
|-----------------------|----------------|-----------------------|---|-----------|--------|------|-------|-----------------|---|
|                       |                |                       | Re Rm <sup>(1)</sup> A(%) Impact (2)(3) |           |        |      |       |                 |   |
| Çolakoğlu             | Chandand       | Ouglitu               | N/n                                     | nm²       | m² A50 |      | Temp. | ΚV <sub>c</sub> |   |
| Quality id            | Standard       | Standard              | Quality (                               | (min.)    | (min.) | min. | min.  | С               | J |
| 56437                 | ASTM A36: 2005 | ASTM A36<br>ASTM A786 | 250                                     | 400 - 550 | 23     | 20   | -20   | 40              |   |

- 1) Tensile tests are applied to "Transversal" test samples.
- 2) Impact tests are not carried out if nominal thickness is lesser than 6 mm.
- 3) Impact tests are carried out if it is customer's request in order.

Çolakoğlu Metalurji | PRODUCT CATALOG





| Group No. | STANDARDS & STEEL GRADES  |
|-----------|---|
| 1         | DIN 1614-1 (St22, RRSt23, St24), DIN EN 10111 (DD11, DD12, DD13), ASTM A1011 (CS Type B), SAE J403 (SAE 1006), JIS G3131 (SPHC), JIS G3132 (SPHT-1).  |
| 2         | DIN EN 10025-2 (S235JR, S235J0, S235JR+N, S235JR+Cu, S235J2+N, S235JRC S235J2C, S235J2C+N), DIN EN 10028 (P235GH), DIN EN 10120 (P245NB), DIN 10217-1 (P235TR1), ASTM (A53 Grade A, A283 Grade C, A1011 SS Grade 33, A1011 SS Grade 36 Type 1, A1018 CS Type B, A1018 SS Grade 33, A1018 SS Grade 36 Type 1, A1018 SS Grade 36 Type 2), SAE J403 (SAE 1008, SAE 1010, SAE 1012, SAE 1015), JJS G 3101 (SS400), JJS G 3132 (SPHT-2), API 5L (A PSL 1-L210, B PSL 1-L245, BN PSL 2).  |
| 3         | DIN EN 10025-2 (S275JR, S275J0, S275J2, S275JR+N, S275J2+N, S275JRC, 275J2C, S275J2C+N), DIN EN 10028 (P265 GH, P295 GH), DIN EN 10120 (P265NB, P310 NB), DIN EN 10149-2 (S315MC), DIN EN 10138 (HDT 580X -DP600, HCT 600X-DP600), ASTM A36 (ASTM A36), ASTM A1011 (SS Grade 36 Type 2), ASTM A1018 (SS Grade 40, HSLAS Grade 45 Class 1), ASTM A500 (Grade B), ASTM A786 (ASTM A36), SAE J403 (SAE 1018, SAE 1020, SAE 1022), JIS G 3125 (SPA-H), API 5L (X42 PSL 1-L290, X46 PSL 1-L320, X42N PSL 2-L290N, X46N PSL 2-L320N |
| 4         | DIN EN 10025-2 (S355JR, S355J0, S 355J2, S355JR+N, S355J2+N, S355J2+N+Cu, S355JRC, S355J2C, S355J2C+N), DIN EN 10025-5 (S355J0WP, S355J2WP), DIN EN 10028 (P355 GH), DIN EN 10083 (28Mn6,30MnB5), DIN EN 10120 (P355NB), DIN EN 10149-2 (S355MC), ASTM A500 (Grade C), ASTM A572 (Grade 50, Grade 55), ASTM A1011 (SS Grade 50, SS Grade 55, HSLAS-[Grade 50 Class1, Grade 55 Class1, Grade 55 Class1, Grade 55 Class1, Grade 55 Class 1), SAEJ 403 (SAE 1025, SAE 1030).   |
| 5         | <b>SAE J403</b> (SAE 1040, SAE 1045), <b>API 5CT</b> (J55).   |
| 6         | <b>SAE J403</b> (SAE 1050, SAE 1055, SAE 1060).   |
| 7         | <b>DIN EN 10149-2</b> (S420MC),<br><b>API 5L</b> (X52 PSL 1, X56 PSL 1, X52M PSL 2- L360M, X56M PSL 2- L390M).  |
| 8         | <b>DIN EN 10149-2</b> (S460MC),<br><b>API 5L</b> ( X60 PSL 1-L415, X65 PSL 1-L450, X60M PSL 2-L415M,<br>X65M PSL 2-L450M).  |
| 9         | DIN EN 10083-3 (42CrMo4),<br>DIN EN 10149-2 (5500MC, 5550MC),<br>SAE J403 (SAE 1070, SAE 1080),<br>API 5L (X70 PSL 1- L485, X70M PSL 2-485M).   |

|                |          | PRODU    | JCTION L | IMITS OF | HOT ROL      | LED COI | LS      |         |         |
|----------------|----------|----------|----------|----------|--------------|---------|---------|---------|---------|
|                |          |          |          | Maxir    | num Width (r | nm)     |         |         |         |
| Thickness (mm) | Group-1  | Group-2  | Group-3  | Group-4  | Group-5      | Group-6 | Group-7 | Group-8 | Group-9 |
| 1.10-1.14(*)   | 1000 (*) | 1000 (*) |          |          |              |         |         |         |         |
| 1.15-1.19      | 1000     | 1000     |          |          |              |         |         |         |         |
| 1.20-1.29      | 1250     | 1250     |          |          |              |         |         |         |         |
| 1.30-1.39      | 1250     | 1250     |          |          |              |         |         |         |         |
| 1.40-1.49      | 1300     | 1300     | 1000     |          |              |         |         |         |         |
| 1.50-1.59      | 1500     | 1500     | 1000     | 1000     |              |         |         |         |         |
| 1.60-1.69      | 1500     | 1500     | 1100     | 1100     |              |         |         |         |         |
| 1.70-1.79      | 1500     | 1500     | 1350     | 1270     | 1000         |         |         |         |         |
| 1.80-1.99      | 1650     | 1500     | 1400     | 1300     | 1200         | 1000    | 1000    |         |         |
| 2.00-2.09      | 1650     | 1550     | 1500     | 1450     | 1250         | 1000    | 1200    | 1000    | 1000    |
| 2.10-2.19      | 1650     | 1550     | 1500     | 1450     | 1250         | 1000    | 1250    | 1250    | 1000    |
| 2.20-2.29      | 1650     | 1550     | 1550     | 1500     | 1250         | 1100    | 1450    | 1450    | 1200    |
| 2.30-2.39      | 1650     | 1550     | 1550     | 1550     | 1450         | 1150    | 1450    | 1450    | 1200    |
| 2.40-2.49      | 1650     | 1650     | 1550     | 1650     | 1450         | 1250    | 1450    | 1450    | 1250    |
| 2.50-2.59      | 1650     | 1650     | 1550     | 1650     | 1450         | 1250    | 1450    | 1450    | 1250    |
| 2.60-2.89      | 1650     | 1650     | 1550     | 1650     | 1450         | 1250    | 1450    | 1450    | 1250    |
| 2.90-2.99      | 1650     | 1650     | 1550     | 1650     | 1650         | 1450    | 1450    | 1450    | 1250    |
| 3.00-3.09      | 1650     | 1650     | 1650     | 1650     | 1650         | 1450    | 1650    | 1650    | 1500    |
| 3.10-3.39      | 1650     | 1650     | 1650     | 1650     | 1650         | 1450    | 1650    | 1650    | 1500    |
| 3.40-3.89      | 1650     | 1650     | 1650     | 1650     | 1650         | 1450    | 1650    | 1650    | 1500    |
| 3.90-3.99      | 1650     | 1650     | 1650     | 1650     | 1650         | 1650    | 1650    | 1650    | 1500    |
| 4.00-4.99      | 1650     | 1650     | 1650     | 1650     | 1650         | 1650    | 1650    | 1650    | 1500    |
| 4.404.99       | 1650     | 1650     | 1650     | 1650     | 1650         | 1650    | 1650    | 1650    | 1500    |
| 5.00-5.79      | 1650     | 1650     | 1650     | 1650     | 1650         | 1650    | 1650    | 1650    | 1500    |
| 5.80-19.00     | 1650     | 1650     | 1650     | 1650     | 1650         | 1650    | 1650    | 1650    | 1500    |
| 19.00-25.00    | 1650     | 1650     | 1650     | 1650     | 1650         | 1650    | 1650    | 1500    | 1500    |

#### Notes

# **HOT ROLLED COIL TOLERANCES (Acc.to DIN EN 10051-1997)**

#### General

The specified values for tolerances shall not apply to the uncropped ends of the coil for a total length "I" which is calculated using the formula:

$$I(m) = \frac{90}{nominal thickness (mm)}$$

provided that the result does not exceed 20 meters.

#### **Tolerances on Thickness**

The tolerances on thickness for continuously hot-rolled low carbon steel sheet/plate for cold forming.

| Nominal Thickness (mm) | To     | lerances for a nominal width (n                                    | nm)                           |
|------------------------|--------|--|-------------------------------|
|                        | W≤1200 | 1200 <w≤ 1500<="" th=""><th>1500<w≤ 1650<="" th=""></w≤></th></w≤> | 1500 <w≤ 1650<="" th=""></w≤> |
| <= 2.00                | ± 0.13 | ± 0.14   | ± 0.16                        |
| > 2.00 <= 2.50         | ± 0.14 | ± 0.16   | ± 0.17                        |
| > 2.50 <= 3.00         | ± 0.15 | ± 0.17   | ± 0.18                        |
| > 3.00 <= 4.00         | ± 0.17 | ± 0.18   | ± 0.20                        |
| > 4.00 <= 5.00         | ± 0.18 | ± 0.20   | ± 0.21                        |
| > 5.00 <= 6.00         | ± 0.20 | ± 0.21   | ± 0.22                        |
| > 6.00 <= 8.00         | ± 0.22 | ± 0.23   | ± 0.23                        |

The tolerances on thickness for steels with normal deformation resistance at elevated temperatures are given the table below. These tolerances are indicated as category A.

| Nominal Thickness (mm) | Tolerances for a nominal width (mm) |  |                               |  |  |  |
|------------------------|-------------------------------------|--|-------------------------------|--|--|--|
|                        | W≤1200                              | 1200 <w≤ 1500<="" th=""><th>1500<w≤ 1650<="" th=""></w≤></th></w≤> | 1500 <w≤ 1650<="" th=""></w≤> |  |  |  |
| <= 2.00                | ± 0.17                              | ± 0.19   | ± 0.21                        |  |  |  |
| > 2.00 <= 2.50         | ± 0.18                              | ± 0.21   | ± 0.23                        |  |  |  |
| > 2.50 <= 3.00         | ± 0.20                              | ± 0.22   | ± 0.24                        |  |  |  |
| > 3.00 <= 4.00         | ± 0.22                              | ± 0.24   | ± 0.26                        |  |  |  |
| > 4.00 <= 5.00         | ± 0.24                              | ± 0.26   | ± 0.28                        |  |  |  |
| > 5.00 <= 6.00         | ± 0.26                              | ± 0.28   | ± 0.29                        |  |  |  |
| > 6.00 <= 8.00         | ± 0.29                              | ± 0.30   | ± 0.31                        |  |  |  |
| > 8.00 <= 10.00        | ± 0.32                              | ± 0.33   | ± 0.34                        |  |  |  |
| > 10.00 <= 12.50       | ± 0.35                              | ± 0.36   | ± 0.37                        |  |  |  |
| > 12.50 <= 15.00       | ± 0.37                              | ± 0.38   | ± 0.40                        |  |  |  |
| > 15.00 <= 25.00       | ± 0.40                              | ± 0.42   | ± 0.45                        |  |  |  |

<sup>\*</sup> Just for domestic market, export orders shall be discussed at the time of orders.

<sup>1)</sup> Minimum order width is 800 mm.

<sup>2)</sup> Production limits vary with the length of slab. Please take into account the following table at the time of orders.



The tolerances on thickness for steels exhibiting a high deformation resistance at elevated temperatures shall be increased by the amounts specified in table below.

| Category | Deformation Resistance   | Increment of Thickness Tolerance |
|----------|--|----------------------------------|
| Α        | 235 MPa <yield 355="" mpa<="" strength≤="" th=""><th>-</th></yield>        | -                                |
| В        | 355 MPa <yield 420="" mpa<="" strength≤="" th=""><th>% 15</th></yield>     | % 15                             |
| C        | 420 MPa <yield 480="" mpa<="" strength="" th="" ≤=""><th>% 30</th></yield> | % 30                             |
| D        | 480 MPa <yield strength<="" th=""><th>% 40</th></yield>                    | % 40                             |

#### Note:

The thickness shall be measured at any point situated at least 40 mm from the edges for products with mill edges. Special thickness tolerances shall be agreeed at the time of enquiry and order

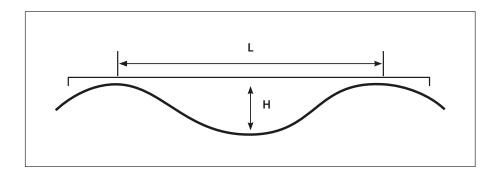
# **Tolerances on Width**

The width shall be measured at right angles to the longitudinal axis of the product.

|   | Tolerances (mm) |       |  |  |  |
|---|-----------------|-------|--|--|--|
| Nominal Width (mm)                                  | Mill Edges      |       |  |  |  |
|   | Lower           | Upper |  |  |  |
| W≤1200  | 0               | +20   |  |  |  |
| 1200 <w≤ 1500<="" th=""><th>0</th><th>+20</th></w≤> | 0               | +20   |  |  |  |
| W>1500  | 0               | +25   |  |  |  |

### **Tolerances on Flatness**

Deviation from flatness shall be determined by measuring the deviation in distance between the product and a flat horizontal surface on which it is placed.



| Nominal<br>Thickness (mm)  | Nominal<br>Width (mm)  | Tolerances<br>on Flatness (mm) | Special Tolerances<br>on Flatness (mm) |  |
|--|--|--------------------------------|--|--|
|  | W≤1200   | 18                             | 9                                      |  |
| t≤2  | 1200 <w≤1500< td=""><td>20</td><td colspan="2">10</td></w≤1500<> | 20                             | 10                                     |  |
|  | 1500 <w< td=""><td>25</td><td>13</td></w<>                       | 25                             | 13                                     |  |
|  | W≤1200   | 15                             | 8                                      |  |
| 2 <t≤25< td=""><td>1200<w≤1500< td=""><td>18</td><td>9</td></w≤1500<></td></t≤25<> | 1200 <w≤1500< td=""><td>18</td><td>9</td></w≤1500<>              | 18                             | 9                                      |  |
|  | 1500 <w< td=""><td>23</td><td>12</td></w<>                       | 23                             | 12                                     |  |

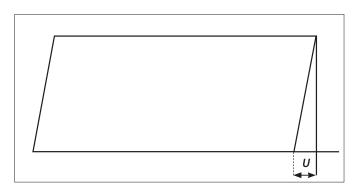
Tolerances on flatness for steels exhibiting a high deformation resistance at elevated temperatures.

| For The Grades of Group B, C, D |   |  |        |  |  |  |  |
|---------------------------------|---|--|--------|--|--|--|--|
| Category                        | Tolerances on Flatness (mm)  Nominal Width (mm)   |  |        |  |  |  |  |
| Nominal Thickness<br>t≤ 25 mm   |   |  |        |  |  |  |  |
|                                 | W≤1200  | 1200 <w≤1500< th=""><th>W&gt;1500</th></w≤1500<> | W>1500 |  |  |  |  |
| В                               | 18  | 23   | 28     |  |  |  |  |
| C                               | 23  | 30   | 38     |  |  |  |  |
| D                               | Shall be agreed at the time of enquiry and order. |  |        |  |  |  |  |

### **Out of Squareness Tolerances**

The out-of-squareness "u" is the orthogonal projection of a transverse edge over a longitudinal edge.

The out-of-squareness "u" measured shall not exceed 1 % of the actual width of the sheet/plate.

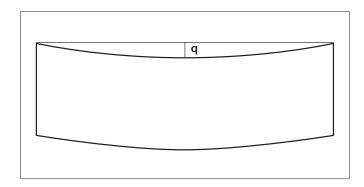


# **Edge Camber**

The Edge Camber is the maximum deviation of a longitudinal edge from a straight edge measuring base applied to it.

The camber is measured on the concave edge.

For sheet /plate the measuring base shall be the length of the product for a nominal length <5000mm.



| Type of<br>Product | Dimensions                 |             | 7. Dimoi          |             | Gauge Lengths (mm) | Tolerances | in "q"(mm) |
|--------------------|----------------------------|-------------|-------------------|-------------|--------------------|------------|------------|
|                    | Width (mm)                 | Length (mm) |                   | Mill Edge   | Trimmed Edge       |            |            |
| Sheet - Plate      | eet - Plate >= 600 >= 5000 |             | 5000              | 20          | 15                 |            |            |
|                    | >=600                      | < 5000      | Actual Length (L) | + 0.005 x L | + 0.005 x L        |            |            |
| Coil               | >=600                      | -           | 5000              | 20          | 15                 |            |            |

# **Form of Coils**

Coils shall be tightly wound, as round as possible and edge parallel, any gradual displacement of the strip edges in one direction not exceeding 35mm for widths less than 600mm and 60mm for widths not less than 600mm for strip with mill edges.

Unless otherwise is specified at the time of order, deviations from inside diameter tolerances are as follows;

±7% for strip with mill edges.

(DIN 1016-1987)

### **Coil Dimensions and Weights**

Tolerances on coil inside diameter and maximum values for outside diameter and coil weigth are given in following table.

| Description      | Values and Tolerance |
|------------------|----------------------|
| Inside Diameter  | 762 +0/-50           |
| Outside Diameter | Max. 2100 mm         |
| Coil Weigth      | Max. 39 tonnes       |

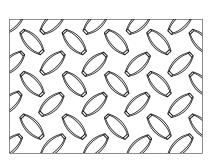
# Floor Plates (Teardrop Pattern) Production Limits and Tolerances

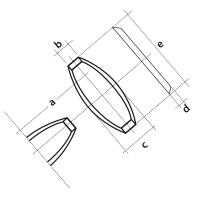
Floor plates produce according to ASTM A786/A786M(2009) with the Pattern No:4. Production limits are as in follows;

| Thick-       | Maximum Width (mm) |        |        |        |        |        |        |        |        |
|--------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| ness<br>(mm) | Group1             | Group2 | Group3 | Group4 | Group5 | Group6 | Group7 | Group8 | Group9 |
| 2.0-2.99     |                    | 1250   |        |        |        |        |        |        |        |
| 3.0-3.99     |                    | 1550   |        |        |        |        |        |        |        |
| 4.0-4.99     |                    | 1550   |        |        |        |        |        |        |        |
| 5.0-5.99     |                    | 1550   |        |        |        |        |        |        |        |
| 6.0-12.0     |                    | 1550   |        |        |        |        |        |        |        |

#### Notes:

Minimum order width is 800 mm.
Other grades shall be discussed at the time of orders.
Minimum mill campaign shall be 2000 m tonnes.





|               | Dimension     |  |  |  |  |
|---------------|---------------|--|--|--|--|
| a             | ~ 30 mm       |  |  |  |  |
| b             | 4 +/ - 0.5 mm |  |  |  |  |
| c             | 8.5 +/- 1 mm  |  |  |  |  |
| d             | 1-2 mm*       |  |  |  |  |
| e 30 +/- 2 mm |               |  |  |  |  |

<sup>\*</sup> Except the core thickness between 4 - 2.5 mm for which the height of patern (d) may vary 0.7 mm to 2 mm and core thickness of less than 2.5 mm for which the height of patern (d) may vary 0.5 mm to 2 mm.



|                          | BILLET QUALITIES     |            |           |           |       |       |      |  |
|--------------------------|----------------------|------------|-----------|-----------|-------|-------|------|--|
| Chemical Composition (%) |                      |            |           |           |       |       |      |  |
| Qualities                | Standard             | С          | Mn        | Si        | P     | S     | Cr   |  |
| Qualities                | Standard             | max.       | max.      | max.      | max.  | max.  | max. |  |
| 3SP                      | GOST 380             | 0.14-0.22  | 0.40-0.65 | 0.15-0.30 | 0.040 | 0.050 | 0.30 |  |
| 5SP                      | GOST 380             | 0.28-0.37  | 0.50-0.80 | 0.15-0.30 | 0.040 | 0.050 | 0.30 |  |
| A400 NR                  | E 449: 2010          | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| A500 NR                  | E 450: 2010          | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| A500C                    | ACHM 7-93            | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| A630- 420H               | NCh 207 : 2006       | 0.30 -0.42 | 0.70-1.40 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| B 500 B                  | NEN 6008:2008        | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| B 420 B                  | TS 708: 2010         | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| B 420C                   | TS 708: 2010         | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| B 450 C                  | DM 14.01.2008        | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| B 500 B                  | DIN 488: 2009        | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| B 500 B                  | NF A35- 080-1:2013   | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| B 500 B                  | TS 708: 2010         | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| B 500 BWR                | IS 6935-2:2007       | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| B 500 C                  | TS 708: 2010         | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| B 500B                   | BDS 9252 : 2007      | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 |      |  |
| CA 50                    | ABNT NBR 7480 : 2017 | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| FEE 400                  | NF A35-016:1986      | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| FEE 500                  | NF A35-016:1996      | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |
| GR 40                    | ASTM A615            | 0.20 -0.30 | 0.60-1.10 | 0.40      | 0.060 | 0.050 | 0.30 |  |
| GR 60                    | ASTM A615            | 0.30 -0.40 | 0.70-1.40 | 0.40      | 0.060 | 0.050 | 0.30 |  |
| GR 60                    | ASTM A706            | 0.20 -0.33 | 0.70-1.30 | 0.40      | 0.060 | 0.050 | 0.30 |  |
| GR 75                    | ASTM A615            | 0.30 -0.40 | 0.70-1.40 | 0.40      | 0.060 | 0.050 | 0.30 |  |
| GR 300                   | JS 33: 1999          | 0.14-0.22  | 0.60-1.00 | 0.40      | 0.060 | 0.050 | 0.30 |  |
| GR 400                   | JS 33 : 1999         | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.060 | 0.050 | 0.30 |  |
| GR 400R                  | CAN/CSA.G30.18-09    | 0.18-0.38  | 0.90-1.30 | 0.40      | 0.050 | 0.050 | 0.30 |  |

| Ni   | Cu   | Мо   | V     | N     | Ceq  |
|------|------|------|-------|-------|------|
| max. | max. | max. | max.  | max.  | max  |
| 0.30 | 0.30 | 0.05 | 0.010 | 0.010 |      |
| 0.30 | 0.30 | 0.05 | 0.010 | 0.010 |      |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       | 0.50 |
| 0.30 | 0.80 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.80 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.80 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.80 | 0.05 | 0.010 | 0.012 | 0.50 |
|      | 0.80 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.060 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       | 0.40 |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |

St 37-2

DIN 17100

|            | BILLET QUALITIES         |            |           |           |       |       |      |  |  |
|------------|--------------------------|------------|-----------|-----------|-------|-------|------|--|--|
|            | Chemical Composition (%) |            |           |           |       |       |      |  |  |
| Qualities  | Standard                 | C          | Mn        | Si        | P     | S     | Cr   |  |  |
| Qualities  | Stalluaru                | max.       | max.      | max.      | max.  | max.  | max. |  |  |
| GR 400W    | CAN/CSA.G30.18-09        | 0.18-0.30  | 1.60      | 0.40      | 0.035 | 0.045 | 0.30 |  |  |
| GR 460 B   | BS 4449:1997             | 0.14-0.25  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |  |
| GR 500 B   | MS 146: 2006             | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |  |
| GR 500R    | CAN/CSA.G30.18-09        | 0.18-0.38  | 0.90-1.30 | 0.40      | 0.050 | 0.050 | 0.30 |  |  |
| GR 500W    | CAN/CSA.G30.18-09        | 0.18-0.30  | 1.60      | 0.40      | 0.035 | 0.045 | 0.30 |  |  |
| GR B 500 B | BS 4449:2005             | 0.14-0.22  | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |  |
| OB 37      | SR 438-1:2012            | 0.23       | 0.75      | 0.07      | 0.045 | 0.045 | 0.30 |  |  |
| PC 52      | SR 438-1:2012            | 0.22       | 1.60      | 0.55      | 0.045 | 0.045 | 0.30 |  |  |
| S 400      | IS 4466-3:2013           | 0.30-0.38  | 0.90-1.30 | 0.40      | 0.050 | 0.050 | 0.30 |  |  |
| S 400 W    | IS 4466-3 : 2013         | 0.18-0.24  | 0.90-1.40 | 0.40      | 0.050 | 0.050 | 0.30 |  |  |
| S 420      | TS 708: 2010             | 0.14- 0.45 | 0.60-1.20 | 0.40      | 0.050 | 0.050 | 0.30 |  |  |
| SAE 1006   | ASTM A510                | 0.08       | 0.25-0.40 | 0.05-0.12 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1008   | ASTM A510                | 0.10       | 0.30-0.50 | 0.05-0.15 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1010   | ASTM A510                | 0.08-0.13  | 0.30-0.60 | 0.05-0.15 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1012   | ASTM A510                | 0.10-0.15  | 0.30-0.60 | 0.05-0.15 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1015   | ASTM A510                | 0.13-0.18  | 0.30-0.60 | 0.05-0.15 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1018   | ASTM A510                | 0.15-0.20  | 0.60-0.90 | 0.10-0.30 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1020   | ASTM A510                | 0.18-0.23  | 0.30-0.60 | 0.10-0.30 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1030   | ASTM A510                | 0.28-0.34  | 0.60-0.90 | 0.15-0.35 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1035   | ASTM A510                | 0.32-0.38  | 0.60-0.90 | 0.15-0.35 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1040   | ASTM A510                | 0.37-0.44  | 0.60-0.90 | 0.15-0.35 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1045   | ASTM A510                | 0.43-0.50  | 0.60-0.90 | 0.15-0.35 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1050   | ASTM A510                | 0.48-0.55  | 0.60-0.90 | 0.15-0.35 | 0.040 | 0.050 | 0.30 |  |  |
| SAE 1060   | ASTM A510                | 0.55-0.65  | 0.60-0.90 | 0.15-0.35 | 0.040 | 0.050 | 0.30 |  |  |
| St 50      | DIN 17100                | 0.24-0.33  | 0.60-0.90 | 0.40      | 0.050 | 0.050 | 0.30 |  |  |
| St 60      | DIN 17100                | 0.34-0.43  | 0.60-0.90 | 0.40      | 0.050 | 0.050 | 0.30 |  |  |
|            |                          |            |           |           |       |       |      |  |  |

0.60

0.050

0.050

| Ni   | Cu   | Мо   | V     | N     | Ceq  |
|------|------|------|-------|-------|------|
| max. | max. | max. | max.  | max.  | max  |
| 0.30 | 0.50 | 0.05 | 0.010 |       | 0.55 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.51 |
| 0.30 | 0.50 | 0.05 | 0.010 | 0.012 | 0.51 |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       | 0.55 |
| 0.30 | 0.80 | 0.05 | 0.010 | 0.012 | 0.50 |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       | 0.60 |
| 0.30 | 0.50 | 0.05 | 0.010 |       | 0.55 |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.50 | 0.05 | 0.010 |       |      |
| 0.30 | 0.60 | 0.05 | 0.010 |       |      |
| 0.30 | 0.60 | 0.05 | 0.010 |       |      |
| 0.30 | 0.60 | 0.05 | 0.010 |       |      |

0.30

|               | REBAR QUALITIES   |      |                |            |       |       |      |  |  |
|---------------|-------------------|------|----------------|------------|-------|-------|------|--|--|
|               |                   |      | Chemical Compo | sition (%) |       |       |      |  |  |
| <b>A</b> 11:1 |                   | C    | Mn             | Si         | P     | S     | Cr   |  |  |
| Qualities     | Standard          | max. | max.           | max.       | max.  | max.  | max. |  |  |
| A400 NR       | E 449 : 2010      | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| A500 NR       | E 450 : 2010      | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| A500C         | ACHM 7-93         | 0.22 | 1.60           | 0.90       | 0.050 | 0.050 |      |  |  |
| A630- 420H    | NCh 204:2006      |      |                |            |       |       |      |  |  |
| B 420 B       | TS 708 : 2010     | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| B 420C        | TS 708 : 2010     | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| B 450 C       | DM. 14/01/2008    | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| B 500 B       | BS 4449:2005      | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| B 500 B       | DIN 488:2009      | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| B 500 B       | NEN 6008:2008     | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| B 500 B       | NF A35-080-1:2013 | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| B 500 B       | TS 708 : 2010     | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| B 500 BWR     | IS 6935-2:2007    | 0.22 | 1.60           | 0.60       | 0.050 | 0.050 |      |  |  |
| B 500 C       | TS 708 : 2010     | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| B 500B        | BDS 9252:2007     | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| CA 50         | ABNT NBR 7480     |      |                |            |       |       |      |  |  |
| FEE 400       | NFA 35-016:1986   | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| FEE 500       | NFA 35-016:1996   | 0.22 |                |            | 0.050 | 0.050 |      |  |  |
| GR 300        | JS 33 : 1999      |      |                |            | 0.060 |       |      |  |  |
| GR 40         | ASTM A615         |      |                |            | 0.060 |       |      |  |  |
| GR 400        | JS 33 : 1999      |      |                |            | 0.060 |       |      |  |  |
| GR 400R       | CAN/CSA G30.18-09 |      |                |            | 0.050 |       |      |  |  |
| GR 400W       | CAN/CSA G30.18-09 | 0.30 | 1.60           | 0.50       | 0.035 | 0.045 |      |  |  |
| GR 460 B      | BS 4449:1997      | 0.25 |                |            | 0.050 | 0.050 |      |  |  |
| GR 500 B      | MS 146: 2006      | 0.30 |                |            | 0.050 | 0.050 |      |  |  |
| GR 500R       | CAN/CSA G30.18-09 |      |                |            | 0.050 |       |      |  |  |
| GR 500W       | CAN/CSA G30.18-09 | 0.30 | 1.60           | 0.50       | 0.035 | 0.045 |      |  |  |
| GR 60         | ASTM A615         |      |                |            | 0.060 |       |      |  |  |
| GR 60         | ASTM A706         | 0.30 | 1.50           | 0.50       | 0.035 | 0.045 |      |  |  |
| GR 75         | ASTM A615         |      |                |            | 0.060 |       |      |  |  |
| OB 37         | SR 438-1:2012     | 0.23 | 0.75           | 0.07       | 0.045 | 0.045 | 0.30 |  |  |
| PC 52         | SR 438-1:2012     | 0.22 | 1.60           | 0.55       | 0.045 | 0.045 | 0.30 |  |  |
| S 400         | IS 4466-3:2013    | 0.38 |                |            | 0.050 | 0.050 |      |  |  |
| S 400W        | IS 4466-3:2013    | 0.24 |                |            | 0.050 | 0.050 |      |  |  |
| S 420         | TS 708 : 2010     | 0.45 |                |            | 0.050 | 0.050 |      |  |  |

| Ni   | Cu   | Мо   | V    | N     | Ceq  |
|------|------|------|------|-------|------|
| max. | max. | max. | max. | max.  | max  |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      |      |      |      | 0.012 | 0.50 |
|      |      |      |      |       |      |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      | 0.60 |      |      | 0.012 | 0.50 |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      |      |      |      | 0.012 | 0.50 |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      | 0.80 |      |      | 0.012 | 0.50 |
|      |      |      |      |       |      |
|      |      |      |      | 0.012 | 0.50 |
|      |      |      |      | 0.012 | 0.50 |
|      |      |      |      |       | 0.40 |
|      |      |      |      |       |      |
|      |      |      |      |       |      |
|      |      |      |      |       |      |
|      |      |      |      |       | 0.55 |
|      |      |      |      | 0.012 | 0.51 |
|      |      |      |      | 0.012 | 0.51 |
|      |      |      |      |       |      |
|      |      |      |      |       | 0.55 |
|      |      |      |      |       |      |
|      |      |      |      |       | 0.55 |
|      |      |      |      |       |      |
| 0.30 |      |      |      |       |      |
| 0.30 | 0.50 |      |      |       | 0.50 |
|      |      |      |      |       | 0.60 |

| REBAR QUALITIES           |                      |  |   |                        |                   |                       |                               |  |
|---------------------------|----------------------|--|---|------------------------|-------------------|-----------------------|-------------------------------|--|
| Mechanical Properties (%) |                      |  |   |                        |                   |                       |                               |  |
| Qualities                 | Standard             | Yield Strength<br>(Re) N/mm² (min.)                  | Tensile<br>Strength<br>(Rm) N/mm²<br>(min.) | Elongation<br>% (min.) | (Agt) %<br>(min.) | Rm/Re<br>( min.)      | Re, act /Re,<br>nom<br>(max.) |  |
| A400 NR                   | E 449 : 2010         | 400  |   |                        | 5                 | 1.08                  |                               |  |
| A500 NR                   | E 450 : 2010         | 500  |   |                        | 5                 | 1.08                  |                               |  |
| A500C                     | ACHM 7-93            | 500  | 600   | 14                     |                   |                       |                               |  |
| A630- 420H                | NCh 204 : 2006       | 420 - ( max. = 580)                                  | 630   | 8                      |                   | 1.25                  |                               |  |
| B 420 B                   | TS 708 : 2010        | 420  |   | 12                     | 5                 | 1.08                  |                               |  |
| B 420C                    | TS 708 : 2010        | 420  |   | 12                     | 7.5               | 1.15<br>(max.=1.35)   | 1.30                          |  |
| B 450 C                   | DM. 14/01/2008       | 450  | 540   |                        | 7.50              | 1.15 -<br>(max.=1.35) | 1.25                          |  |
| B 500 B                   | BS 4449:2005         | 500 (max.=650)                                       |   |                        | 5                 | 1.08                  |                               |  |
| B 500 B                   | DIN 488 : 2009       | 500  |   |                        | 5                 | 1.08                  | 1.30                          |  |
| B 500 B                   | NEN 6008 : 2008      | 500  |   |                        | 5                 | 1.08                  |                               |  |
| B 500 B                   | NF A35-080-1:2013    | 500  |   |                        |                   |                       |                               |  |
| B 500 B                   | TS 708 : 2010        | 500  |   | 12                     | 5                 | 1.08                  |                               |  |
| B 500 BWR                 | IS 6935-2:2007       | 500  |   | 14                     | 5                 | 1.08                  |                               |  |
| B 500 C                   | TS 708 : 2010        | 500  |   | 12                     | 7.5               | 1.15<br>(max.=1.35)   | 1.30                          |  |
| B 500B                    | BDS 9252:2007        | 500  | 550   |                        | 5                 |                       | 1.25                          |  |
| CA 50                     | ABNT NBR 7480 : 2007 | 500  |   | 8                      | 5                 | 1.08                  |                               |  |
| FEE 400                   | NFA 35-016:1986      | 400  | 440   | 14                     | 5                 | 1.05                  |                               |  |
| FEE 500                   | NFA 35-016:1996      | 500  |   |                        | 5                 | 1.08                  |                               |  |
| GR 300                    | JS 33 : 1999         | 300 - (max.=425)                                     |   | 10 - 12                |                   | 1.33                  |                               |  |
| GR 40                     | ASTM A615            | 280  | 420   | 10 - 12                |                   |                       |                               |  |
| GR 400                    | JS 33 : 1999         | 400 - (max.=525)                                     |   | 7-9                    |                   | 1.33                  |                               |  |
| GR 400R                   | CAN/CSA G30.18-09    | 400  | 540   | 7 - 10                 |                   | 1.15                  |                               |  |
| GR 400W                   | CAN/CSA G30.18-09    | 400 - (max.=525)                                     | 540   | 12 - 13                |                   | 1.15                  |                               |  |
| GR 460 B                  | BS 4449:1997         | 460  |   | 14                     | 5                 | 1.08                  |                               |  |
| GR 500 B                  | MS 146 :2006         | 500  |   | 12                     |                   | 1.05                  |                               |  |
| GR 500R                   | CAN/CSA G30.18-09    | 500  | 675   | 6-9                    |                   | 1.15                  |                               |  |
| GR 500W                   | CAN/CSA G30.18-09    | 500 - ( max.= 625)                                   | 625   | 10 - 12                |                   | 1.15                  |                               |  |
| GR 60                     | ASTM A615            | 420  | 620   | 7-9                    |                   |                       |                               |  |
| GR 60                     | ASTM A706            | 420 (max.= 540)                                      | 550   | 10 - 14                |                   | 1.25                  |                               |  |
| GR 75                     | ASTM A616            | 520  | 690   | 6-7                    |                   |                       |                               |  |
| OB 37                     | SR 438-1:2012        | 6mm≤d≤12mm=255<br>14mm≤d≤40mm=235                    | 360   | 25                     |                   |                       |                               |  |
| PC 52                     | SR 438-1:2012        | 8mm≤d≤14mm=355<br>16mm≤d≤28mm=345<br>32mm≤d≤40mm=335 | 510   | 20                     |                   |                       |                               |  |
| S 400                     | IS 4466-3 : 2013     | 400 - (max.=520)                                     |   | 12                     | 8                 | 1.25                  |                               |  |
| S 400W                    | IS 4466-3 : 2013     | 400 - (max.=520)                                     |   | 12                     | 8                 | 1.25                  |                               |  |
| S 420                     | TS 708 : 2010        | 420 - (max.=546)                                     | 500   | 10                     |                   | 1.15                  | 1.30                          |  |





|               | BILLETT                             | OLERANCES    |
|---------------|-------------------------------------|--------------|
|               | Tolerances                          |              |
| Thickness     | 130 mm : ±3 mm<br>150 mm : ±5 mm    | <b>→ →</b>   |
| Width         | 130 mm : ±3 mm<br>150 mm : ±5 mm    | →   <b>←</b> |
| Length        | ± 100 mm                            |              |
| Straightness  | ( ≤ 10 mm/m )                       | length       |
| Rhomboidity   | ≤ % 6                               |              |
| Twist         | ≤ 1°/m                              |              |
| Corner Radius | 130 mm : ≤ 8 mm<br>150 mm : ≤ 10 mm | radius       |
| Face Bulging  | 130 mm ± 2.5 %<br>150 mm ± 2.5 %    |              |

Çolakoğlu Metalurji | PRODUCT CATALOG

# Çolakoğlu Metalurji PRODUCT CATALOG



# Çolakoğlu Metalurji A.Ş.

# Headquarter

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# **Production Facility**

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Inward Processing Regime Resolution (In Turkish & English)

Resolution No: 2005/8391 Page: 1

Resolution No.: 2005/8391 Official Gazette No: 25709
Date of Resolution: 17 January 2005 Date of Official Gazette: 27 January 2005

The Council of Ministers decided on 17 January 2005 that the attached "Resolution Concerning Domestic Processing Regime" be put into force pursuant to Report No. 2004/114 dated 30 December 2004 of High Planning Board, and in accordance with the amended Article 1 of Law No. 261 dated 27 June 1963, Article 3/C of Law No. 933 dated 28 July 1967, amended Article 1 of Law No. 1567 dated 20 February 1930, amended Article 2 of Law No. 474 dated 14 May 1964, Articles 80, 111, 115 and 121 of Law No. 4458 dated 27 October 1999 and the provisions of Law No.2976 dated February 2 1984.

Recep Tayyip ERDOĞAN Prime Minister

Ahmet Necdet SEZER President

#### RESOLUTION CONCERNING DOMESTIC PROCESSING REGIME

#### SECTION I

#### PURPOSE, SCOPE AND DEFINITIONS

#### **Purpose**

**Article 1** — This Resolution has been prepared in order to increase exports by way of procuring raw materials at world market prices, to give competition power to export products in international markets, to promote export markets and to diversify the export products.

#### Scope

**Article 2** – This Resolution covers the regulation and enforcement of measures related to the defining, guiding and promotion of exportation of finished products with imported inputs used in their production as well as the sales and deliveries of the same considered as exportation.

#### **Definitions**

**Article 3** — The meanings of terms used in this Resolution are as follows:

**Undersecretariat:** The Undersecretariat of Foreign Trade.

**Community:** The European Community.

**Third Country:** Countries other than the Member States of the European Community.

Free Zones: The free zones located within Turkey's Custom's Area.

Goods in Free Movement: Pursuant to Article 18 of Customs Law No. 4458, the goods obtained wholly within Turkey's Customs Area and not containing any inputs imported from the countries or territories outside Turkey's Customs Area or obtained from goods subject to conditional exemption and considered not to bear any special economic importance according to the provisions of regime they are subject to or imported from the countries or territories outside Turkey's Customs Area under the regime concerning entry into free movement or obtained or produced separately or together within Turkey's Customs Area from the goods specified above.

**Processing Activity:** Working and processing of goods including mounting, assembly and combining with other goods and their repair including renewal and putting into order, as well as the using of certain pre-

Resolution No: 2005/8391 Page: 2

determined goods which, even if they are wholly or partly consumed during processing, have not been incorporated into the goods but ensure or facilitate the production of such goods.

**To obtain:** Subjecting the goods to processing activity.

**Processed Products:** The primary or auxiliary processed products obtained as a result of a processing activity.

**Primary Processed Products:** Products aimed to be obtained under the Domestic Processing Regime.

**Auxiliary Processed Products:** Products other than the primary processed products, obtained as a result of a processing activity.

**Import Goods:** The raw materials, auxiliary materials and semi-finished and finished products used in obtaining the processed products, as well as the materials (including fuels and oils) which, although are not into the processed products, ensure the operation of processed products or ensure the continuity of services incorporated (spare parts, etc.), and the packing materials and operating supplies.

**Operating Supplies:** Materials (excluding energy sources and fuels) which are not in the nature of investment machinery and equipment, and are employed in obtaining the processed products whose exportation has been committed, and although not incorporated into the processed products, ensure the operation of stationary facilities.

**Unaltered Goods:** Imported goods not subjected to any processing.

**Agricultural Products:** The vegetable products grown on soils, or in soilless medium using new production techniques and technologies, the animal products, fishery products and other fresh-water products as included in the relevant lists of Import Regime Resolution, as well as their forms obtained after they are subjected to primary processing.

**Processed Agricultural Products:** Products containing the basic agricultural products (cereals, sugar, and milk), as included in the relevant List of Import Regime Resolution.

**Industrial Products:** All products other than the agricultural products and processed agricultural products.

**Wastage:** The parts of goods which are lost or destroyed particularly due to drying, evaporation, leaking or gas leakage during processing activities, as well as wastes which have no economic value.

**Productivity Rate:** Quantity or percentage of processed products obtained as a result of processing a defined quantity of goods.

**Foreign-exchange Utilization Rate:** The percentage ratio of CIF import value (excluding domestic purchases) to FOB export value, for transactions realized under a Domestic Processing Authorization Certificate/Domestic Processing Authorization.

**Importation in Advance:** Importation of goods to be used in obtaining the processed products prior to their exportation.

**Exportation in Advance:** Exportation of processed products obtained from equivalent goods prior to the importation of import goods under the Conditional Tax Immunity System.

**Equivalent Goods:** Goods in free movement which are used instead of imports in the obtaining of processed products, and which have the same Customs Tariff Position with at least (eight)-bases as import goods and bear the same commercial qualities and technical characteristics.

**Trade Policy Measures:** The measures taken in accordance with the regulations stipulated in Article 4 of Import Regime Resolution.

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**Tax:** All financial obligations such as taxes, duties, fees, fund payments etc. which are stipulated for collection during import and export goods.

Subjecting the Goods to a Process or Use Approved by the Customs Authorities: Subjecting the goods to a Customs regime, their re-export to a place outside Turkey's Customs Area or to free zones or their annihilation or leaving at the Customs.

**Customs Regime:** Any one of the Free Movement Entry Regime, Transit Regime, Customs Warehouse Regime, Domestic Processing Regime, Temporary Importation Regime, Overseas Processing Regime or Export Regime.

**Domestic Processing Authorization Certificate:** A certificate to be issued by the Undersecretariat to enable importation with Customs duty immunity and/or realization of domestic purchases, in exports or in the sales and deliveries considered as exports.

Certificate: The Domestic Authorization Certificate.

**Term of Certificate:** The period shown in the Domestic Processing Authorization Certificate during which all import and/or export transactions committed under that certificate will be effected and all relevant exemptions will be applicable.

**End of Term of Certificate:** The last day of the month in which the term of certificate expires.

**Domestic Processing Authorization:** An authorization granted by relevant Customs Administration to enable importation with Customs duty exemption with the purpose of exportation.

**Authorization:** The Domestic Processing Authorization.

**Term of Authorization:** The period shown in the Domestic Processing Authorization during which all import and/or export transactions committed under that Authorization will be effected and all relevant exemptions will be applicable.

End of Term of Authorization: The last day of the month in which the term of Authorization expires.

**Approved Person Status Certificate:** A certificate granted by the Undersecretariat of Customs in accordance with the Customs Legislation.

**A.TR Movement Certificate:** A certificate to be issued by the exporting country's authorized institutions and endorsed by relevant Customs Administration, in order to enable the goods subject to free movement in Turkey or in the Community to take advantage of the Preferential Regime stipulated in the Additional Protocol.

**Origin-evidencing Certificates:** The EUR-1 Movement Certificate or Invoice Declaration evidencing the origin of goods, as issued by the authorized institutions of exporting country and endorsed by relevant Customs Administration in order to take advantage of Preferential Regime within the framework of agreements which Turkey is a party to.

**Pan-European Cumulation of Origin:** The trading system formed in Europe among the countries tied to each other by Free Trade Agreements based on same rules concerning origin of goods, and enabling the importation, under the Preferential Regime, of a processed product obtained using goods whose origin is a country party to said agreements, into another country subject to this Cumulation.

**Supplier's Declaration:** The certificate used along with the A.TR Movement Certificate or EUR-1 Movement Certificate, and showing the origin of goods which are included under the Pan-European Cumulation of Origin and constitute the subject matter of trade between Turkey and the Community.

**Manufacturer-Exporter:** A firm holding a Domestic Processing Authorization Certificate Domestic Processing Authorization and producing the whole or a part of the processed product and effecting its exportation on its own and/or through an intermediary exporter.

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**Exporter:** A firm holding a Domestic Processing Authorization Certificate/Domestic Processing Authorization, which is not a manufacturer but causes a side manufacturer to produce the processed products from the import goods, and then exports them either by itself and/or through an intermediary exports.

**Side Manufacturer:** A firm producing either the whole, or a part of the export product committed under a Domestic Processing Authorization Certificate, Domestic Processing Authorization, and although registered in said Certificate Authorization, not being its actual owner.

**Intermediary Exporter:** An exporting firm not holding a Certificate Authorization but effecting the exportation of products committed under a Domestic Processing Authorization Certificate, Domestic Processing Authorization exactly in the same form as supplied by the firm holding that Certificate/Authorization.

#### SECTION II DOMESTIC PROCESSING MEASURES

#### **Domestic Processing Measures**

**Article 4** — These measures shall comprise the following: System of Conditional Immunity, and System of Refund.

#### **Conditional Immunity System**

Article 5 — The firms residing in Turkey's Customs Area (excluding free zones) shall be granted authorization to import, the raw materials, auxiliary materials, semi-finished products, finished products, unaltered goods, packing materials and operating supplies which are required in obtaining the processed products committed to be exported on the basis of Domestic Processing Authorization Certificate, Domestic Processing Authorization, but are not in free movement, without being subject to the Trade Policy Measures, against posting of a guarantee equal to the amount of taxes arising from such importation, and returning said guarantee after the export commitment is realized.

Instead of the imported goods used in obtaining the processed products, under a Domestic Processing Authorization Certificate, those goods in free movement which have the same Customs Tariff Position based on at least 8 (eight) digits as the import goods and bear the same commercial qualities and technical characteristics may be used as equivalent goods. This system enables to realize exportation in advance and importation afterwards under a Domestic Processing Certificate, as well as to use the import goods together with the goods in free movement. The Undersecretariat (General Directorate of Exports) may introduce prohibitions or restrictions to the use of equivalent goods, either with no time limit or for a defined period of time. If the processed products obtained using equivalent goods have been exported prior to the importation of import goods, then the importation of goods corresponding to this transaction may be effected until the end of the term of the Certificate. During importation to be effected under this scheme, all taxes including the value added tax (provided that the provisions of Special Consumption Tax Law No. 4760 are reserved) shall be covered under a guarantee, and the trade policy measures shall not be applicable. Any goods imported following the realization of exportation in advance, in a proportion corresponding to such exportation, may be freely used by the firm holding the Certificate.

In cases where the processed product is obtained from equivalent goods, the import goods shall be treated as equivalent goods while the equivalent goods as import goods in carrying out the Customs transactions. Where the processed product subject to exportation in advance is obtained from the equivalent goods subject to export tax, an amount of guarantee equivalent to the export tax shall be collected, which shall be returned after the realization of import corresponding to such goods.

Furthermore the raw materials, auxiliary materials, semi-finished products, finished products, unaltered goods, and packing materials required in obtaining of processed products may be imported in accordance with the provision of first Paragraph, but they may also be procured from the domestic market within the framework of arrangements to be made to that end. The goods procured from domestic market with the purpose of exportation under a Domestic Processing Authorization Certificate shall be treated as import goods with regard to the implementation of this Resolution, (providing the provisions of Value Added Tax Law No.3065 and Special Consumption Tax Law. No. 4760 are reserved).

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For the goods procured from domestic market, however, the provisions of this Resolution concerning the auxiliary processed products and the foreign-exchange utilization rate shall not be applicable. In case of failure to realize the exportation of domestically procured goods, in the form of processed products within the term of the Certificate, the 2 (two)-fold fine stipulated in Article 22 of this Resolution shall not be applicable, either.

The domestic purchase of goods under a Domestic Processing Authorization Certificate must be realized within the term of the Certificate. However, provided that the realization of export of the processed product in accordance with the provisions of Communiqué to be published on the basis of this Resolution is evidenced, domestic purchase of goods may be effected under a Domestic Processing Authorization Certificate even if its term has expired, without requiring the collection of a guarantee. Furthermore, if the domestic purchase of goods is found not to be possible under Certificate, the term of Certificate may be extended as to allow the import of such goods.

#### **Collection of Guarantee and Reduced Rate of Guarantee**

**Article 6-** The tax to arise from importation to be made under the conditional immunity system shall be subject to collection of a guarantee in accordance with the principles stipulated in the Law No. 6183 Concerning the Procedure of Collection of Public Claims.

However, the relevant Customs Administration shall authorize the realization of the importation concerned if the following percentage amounts of tax are posted as a guarantee:

- a) For imports to be made by the firms holding a Class A approved person status certificate under a domestic processing authorizations certificate/domestic processing authorization, 1% of the tax arising from such imports.
- b) For imports to be made by the firms holding a Class B approved person status certificate under a domestic processing authorization certificate/domestic processing authorization, 5% of the tax arising from such imports.
- c) For imports to be made by the firms holding a Class C approved person status certificate under a domestic processing authorization certificate/domestic processing authorization, 10% of the tax arising from such imports.
- d) For imports to be made under a domestic processing authorization certificate/domestic processing authorization by the foreign trade share-capital companies and sectoral foreign trade companies not holding an approved person status certificate in an amount equal to the exports effected by them during the calender year prior to the application date of the certificate/authorization, 10% of the tax arising from such imports.
- e) For imports to be made under a domestic processing authorization certificate/domestic processing authorization by the manufacturer-exporters in an amount equal to the exports realized by them under a domestic processing authorization certificate issued within four years prior to the application date of the certificate/authorization and whose export commitment has been closed, or under a domestic processing authorization issued after the publication date of this Resolution, which amount to minimum 1 (one) million US Dollars in total in the case of industrial products and minimum 500 (five hundred) thousand US Dollars in total in the case of agricultural and processed agricultural products; 10% of the tax arising from such imports.
- f) For imports to be made under a domestic processing authorization certificate/domestic processing authorization by the exporters whose exports during the last three calender years exceed 5 (five) million US Dollars for each year or during the last five calender years exceed 1 (one) million US Dollars for each year, in an amount equal to the exports realized by them under a domestic processing authorization certificate issued within four years prior to the application date of the certificate/authorization and whose export commitment has been closed, or under a domestic processing authorization issued after the publication date of this Resolution, which amount to minimum 1 (one) million US Dollars in total in the case of industrial products and minimum 500 (five hundred) thousand US Dollars in total in the case of agricultural and processed agricultural products; 10% of the tax arising from such imports.

The procedures and principles concerning the calculation of reduced guarantee shall be set forth in a Communiqué to be published on the basis of this Resolution.

Following the submission of documents evidencing the exportation of the product domestically processed under the domestic processing authorization certificate in accordance with the provisions of the

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Communiqué to be published on the basis of this Resolution, the relevant Customs Administration shall authorize the importation upon posting of a guarantee in an amount equal to 10% of the tax related to the goods used in obtaining said product.

Any public claims that might arise due the application of reduced guarantee (including the amounts to the public institutions and establishments effecting the domestic deliveries) shall be collected from the firms concerned in accordance with the provisions of Law No. 6183 Concerning the Procedure of Collection of Public Claims. Furthermore, any amounts due to the firms from said public entities shall be treated as a guarantee.

The rate of guarantee applicable to the imports to be made under the conditional tax immunity system may be increased by the Undersecretariat (General Directorate of Exports) up to 2 (two) times of the tax arising from such imports.

#### Processing of Products Outside Turkey's Customs Area or in the Free Zones

**Article 7** — Authorization may be granted for temporary exportation, of the whole or a part of the processed product or unaltered goods covered under the Conditional Tax Immunity System to outside Turkey's Customs Area or to the Free Zones, for processing at a more advanced level in accordance with the provisions of External Processing Regime. Authorization shall be granted for re-importation of products so processed, against posting of a guarantee in an amount equal to the amount of tax required to be collected according to the provisions of External Processing Regime.

#### **System of Tax Refund**

Article 8 — The tax refund system involves the refunding of the tax (excluding the value added tax and special consumption tax related to the operating supplies) collected during importation when the processed product obtained by using the raw materials, auxiliary materials, semi-finished products, finished products, unaltered goods, packing materials and operating supplies entered into free movement under the domestic processing authorization certificate/domestic processing authorization is exported.

But, the importation of raw materials, auxiliary materials, semi-finished products, finished products and unaltered goods to be used in obtaining the processed products to be exported to the member countries of European Community along with an A.TR Movement Certificate may be authorized only if the Customs duty, and mass housing fund payment, if any, applicable to said commodities are collected and any other applicable taxes are covered by posting a guarantee.

Furthermore, the importation of raw materials, auxiliary materials, semi-finished products, finished products and unaltered goods to be used in obtaining the processed products to be exported to the member countries of European Community, to the countries that are party to the Pan-European Community, to the countries that are party to the Pan-European Cumulation of Origin, or to a country that have signed a Free Trade Agreement, along with applicable origin Evidencing Certificates, may be imported if the Customs duty and the mass housing fund, if any, applicable to such commodities are collected and any other applicable taxes are covered by posting a guarantee.

In order that the firms may take advantage of this system, they must obtain a Domestic Processing Authorization Certificate/Domestic Processing Authorization and the Customs Administration must enter a statement in the Customs Declaration related to the Certificate/Authorization during importation indicating that the goods involved fall under the scope of Tax Refund System. Besides this, the information pertaining to the Domestic Authorization Certificate shall be entered in the Customs Declaration, and a copy of the Certificate shall be attached to the Customs Declaration.

Except the importation of agricultural products whose country of origin is a member of the Community, the following goods may not take advantage of the Tax Refund System:

- a) Those whose importation is subject to quantity restrictions,
- b) Those that can take advantage of arrangements involving preferential tariffs or special conditional immunity measures.
- Those that are subject to import taxes in accordance with current agricultural policy or special arrangements concerning agricultural products, and

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d) Those processed products that are subject to monetary export refund at the time of acceptance of declaration of entry into free movement for imported goods.

Furthermore, in the following cases, the exports made may not take advantage of Tax Refund System:

- a) Provided that the provision of second Paragraph of this Article is reserved, the exportation of processed products manufactured using goods of third country origin along with an A. TR-Movement Certificate,
- b) Provided that the provision of third Paragraph of this Article is reserved, the exportation of processed products manufactured using goods of third country origin to the member countries of Community along with the Origin-evidencing Certificates,
- c) Provided that the provision of third Paragraph of this Article is reserved, the exportation of processed products manufactured using goods whose country of origin is not the signatory country of a Free Trade Agreement made with Turkey, to that signatory country along with the Origin-evidencing Certificates,
- d) Provided that the provision of third Paragraph of this Article is reserved, the Exportation of processed products included under the Cumulation and manufactured using goods whose country of origin is not a country which is party to the Pan-European Cumulation of origin, to the countries party to the Cumulation along with the Origin-evidencing Certificates, and
- e) The exportation of processed products manufactured using goods in free movement to the free zones (except the sales made from free zones to a country other than those specified in Subparagraphs (a) through (d) within 3 (three) months following the date of expiry of the Certificate/Authorization).

#### **SECTION III**

#### **GENERAL PROVISIONS**

#### **Evaluation of Applications and Issuance of Certificate/Authorization**

**Article 9** — In order to take advantage of Domestic Processing Regime, the firms residing in Turkey's Customs Area (excluding the Free Zones) must obtain a Domestic Processing Certificate/Authorization in accordance with the provisions of Communiqué to be published pursuant to this Resolution. The information and documents to be submitted within this framework shall be deemed to be correct unless otherwise proven.

Applications made to obtain a Domestic Processing Authorization Certificate/Authorization shall be evaluated on the basis of following criteria:

- a) If should be possible to determine that the imports were used in the manufacture of processed products,
- b) The basic economic interests of manufacturers in Turkey's Customs Area (excluding the Free Zones) and the image of Turkish products should not be adversely affected,
- c) The processing operation should not only create added value and enhance capacity utilization but should also create conditions conducive to enhancing the competitive power and export potential, of processed product, and
- d) The performance of firms under the Domestic Processing Authorization Certificate/Authorization.

As a result of evaluation to be made according to the criteria stated in the second Paragraph above, the Customs Tariff Position based on at least 8 (eight) digits of import goods and processed product (primary and auxiliary processed products), its name, its quantity to be determined according to the rate of productivity, its value, the term of Certificate/Authorization, the foreign-exchange utilization rate and the side manufacturer, if any, shall be determined, and then either a Domestic Processing Authorization Certificate/Domestic Processing Authorization on project basis shall be furnished or the request shall be rejected.

By taking into consideration whether or not the goods concerned can be procured from domestic market from the standpoint of price, market availability and quality, restrictions with no time limit or of

periodic nature may be imposed on partial or total importation of goods under a Domestic Processing Certificate (excluding domestic purchases).

The cases which may not take advantage of Domestic Processing Regime shall be set forth in a Communiqué to be published pursuant to this Resolution.

The requirement related to foreign-exchange utilization rate shall not apply to transactions to be carried out under a Domestic Processing Authorization or under the Domestic Processing Authorization Certificates related to the imports with waiver to be defined in a Communiqué to be published pursuant to this Resolution.

The foreign-exchange utilization rate under a Domestic Processing Authorization Certificate shall be maximum 80%. Nevertheless, in the case of certificates involving auxiliary processed agricultural products, this rate may be determined as maximum 100%.

The import of unaltered goods may be authorized up to maximum 1% of export commitment made under a Domestic Processing Authorization Certificate/Domestic Processing Authorization. The value of operating supplies to be authorized for importation under a Certificate/Authorization may not exceed 2% of the export commitment. However, for Certificates/Authorizations involving export commitment related to natural stones or to precious minerals and stones, this rate may be determined as a figure up to 10 %.

### **Duration of Domestic Processing Authorization Certificates/Authorizations, and Extensions**

**Article 10** — The term of a Domestic Processing Authorization Certificate/Domestic Processing Authorization may be maximum 12 (twelve) months depending on the sector involved.

However, the term of Certificates/Authorizations issued for export of services and/or products of specific nature as to be defined in a Communiqué to be issued pursuant to this Resolution may be as long as the duration of the project.

The date of a Domestic Processing Authorization Certificate/Domestic Processing Authorization shall be taken as the beginning of the term of that Certificate/Authorization, while the end of the term shall be the last day of the month in which the term of Certificate/Authorization (including any extensions and additional periods granted pursuant to justified reasons, force major events and extraordinary circumstances) expires.

The term of a Domestic Authorization Certificate may be extended for a maximum period of 3 (three) months by taking the date on which the first importation under the Certificate was made as a basis.

## Justified Reasons, Force Majeure Events and Extraordinary Circumstances

Article 11 – If the cases of justified reasons, force major events and extraordinary circumstances to be specified in the Communiqué to be published pursuant to this Resolution occur within the term of the Certificate/Authorization, then an extension may be granted to the Domestic Processing Authorization Certificate/Domestic Processing Authorization concerned. The length of extension to be granted to the Certificate/Authorization on the basis of justified reasons, force major events and extraordinary circumstances shall be determined according to the length of cases of justified reason, force major event or extraordinary circumstance.

The procedures and principles concerning the cases where, on account of force major events or extraordinary circumstances, an export commitment would not be required under a Domestic Processing Authorization Certificate/Domestic Processing Authorization or where a new importation would be authorized under such conditions as well as concerning the transfer of imported goods to a Certificate/Authorization issued in the name of another firm meeting the conditions to take advantage of Domestic Processing Regime shall be set forth in a Communiqué to be issued pursuant to this resolution.

The amount of guarantee to be collected under the Certificate/Authorization within the extension to be granted on account of a justified reason under Conditional Immunity System may be increased up to two (2) fold.

#### **Revision of Certificate/Authorization**

**Article 12** – The Domestic Processing Authorization Certificate/Domestic Processing Authorization may be revised in accordance with the provisions of Communiqué to be issued pursuant to this Resolution, upon application of relevant firm together with submission of required information and documents.

## **Realization of Exports**

**Article 13** — The realization of exports shall mean the export of processed product whose exportation has been committed under a Domestic Processing Authorization/Certificate/Domestic Processing Authorization to outside the Customs Area or to the free zones, in accordance with the provisions of this Resolution and Customs Legislation.

However, provided that evidence is presented to indicate that the product exported to free zones within the term of the Certificate/Authorization in accordance with the conditional immunity system pursuant to the provision of first Paragraph above was sold from the free zones to another country within 3 (three) months following the expiry of the term of Certificate/Authorization or was imported into Turkey's Customs Area under another Certificate/Authorization, then the export commitment of relevant Certificate/Authorization shall be closed.

Furthermore, provided that evidence is presented to indicate that the product exported to the free zones within the term of Certificate/Authorization in accordance with the tax refund system pursuant to the provision of first Paragraph above was sold from the free zones to another country within 3 (three) months following the expiry of the term of Certificate/Authorization, then the export commitment of relevant Certificate/Authorization shall be closed.

The principles concerning the bringing of export payment into Turkey shall be subject to the provisions of Exchange Legislation. The export payments may be brought either as foreign exchange or in terms of goods. If, however, the export payments are brought in terms of goods, such goods shall be subject to the provisions of Foreign Trade Legislation.

# Transaction to be Performed by Customs Administration

**Article 14** – The transactions to be performed by the Customs Administration under a Domestic Processing Authorization Certificate/Domestic Processing Authorization shall be realized in accordance with the provisions of this Resolution, the Communiqués, Circulars and Instructions to be published pursuant to this Resolution as well as in accordance with the matters specified in the special conditions of the Certificate and the provisions of Export Regime and Customs Legislation.

## Goods Subject to Measures of Supervision and Protection

**Article 15** – In order that goods whose importation under a Domestic Processing Authorization Certificate/Domestic Processing Authorization is subject to the measures of supervision and protection may enter into free movement, the measures of supervision and protection in force on the date of importation must be followed.

In the contrary case, the processed product manufactured using said goods must either be exported to third countries or exterminated under the supervision of the Customs Administration.

But, if the goods used in the manufacture of processed product exported to the member countries of European Community under a Domestic Processing Authorization Certificate/Domestic Processing Authorization along with an A.TR-Movement Certificate are not subject to the measures of supervision and protection in such countries, then no measures of supervision and protection shall be applicable to such goods.

### **Payment of Levies**

**Article 16** – In the export of industrial products covered under the Conditional Immunity System to the member countries of European Community along with an A.Tr-Movement Certificate, the taxes pertaining to the raw materials, auxiliary materials, semi-finished products, finished products and unaltered goods of third country origin used in obtaining the processed product shall be paid provided that the favorable provisions of agreements made with the countries of origin are reserved. However, if the tax is higher than the tax applicable to same import goods in the Community, then the tax applicable in the Community shall be paid.

In the export of processed agricultural products included under the Conditional Immunity System to the member countries of European Community along with an A.TR-Movement Certificate, if any industrial product of third country origin was used in obtaining such products, then the tax pertaining to that product, while if any processed agricultural product was used, the tax corresponding to the share of industry in that product shall be paid.

Provided that the rule of origin defined in the agreement is met and an Origin-evidencing Certificate is issued in the exports of agricultural products made under the conditional immunity system to a member country of European Community except the export of live animals born and raised in Turkey and the products obtained through hunting and fishing activities, including the products, obtained from them, the tax pertaining to the raw materials, auxiliary materials, semi-finished products finished products and unaltered goods of third country origin which were used in the manufacture of such products shall be paid. If, however, the amount of said tax is higher than the amount of tax applicable in the Community for the same import goods, then the tax applicable in the Community shall be paid.

Provided that the rule of origin defined in the Agreement is met and an Origin-evidencing Certificate is issued, in exports made under the conditional immunity system to a country which has signed a Free Trade Agreement with Turkey, except the export of live animals born and raised in Turkey and the products obtained through hunting and fishing activities, including the products obtained from them, the tax pertaining to the raw materials, auxiliary materials, semi-finished products, finished products and unaltered goods used in the manufacture of processed products and whose origin does not belong to such country shall be paid, provided that the favorable provisions of applicable Agreement are reserved. But in cases where the processed product included under the Cumulation and obtained using the goods imported from the countries that are party to the Pan-European Cumulation of Origin along with the Origin-evidencing Certificates or supplier's declaration is reexported to a country party to the Cumulation along with Origin-evidencing Certificates or supplier's declaration, then the relevant Customs Administration shall authorize the exportation without requiring the payment of tax at the rate specified in the Export Regime.

If the products exported to free zones under the conditional immunity system are sold, within three (3) months following the expiry of duration of the certificate/authorization, from the free zones to the member countries of European Community along with an A.TR movement certificate, or to the member countries of European Community, to the countries party to Pan-European Cumulation or to a country which has signed a Free Trade Agreement with Turkey, then the payment of levies in accordance with the provisions of first, second, third and fourth paragraphs shall be required.

The taxes required to be paid pursuant to the provisions of this Article, including those pertaining to the sales realized from the free zones, shall be calculated on the basis of foreign exchange selling rate announced by the Central Bank of Turkey on the date of registration of Customs Declaration related to the exports made and the rate of Customs duty on that date as stipulated in the Import Regime, and the mass housing fund payment, if any, and shall be paid during exportation. However, in cases where a pre-exportation realized under the Certificate is followed by importation, said taxes shall be calculated on the basis of foreign exchange selling rate announced by the Central Bank of Turkey on the date of registration of Customs Declaration related to the pre-exportation and the rate of Customs duty on that date as stipulated in the Import Regime and the mass housing fund payment, if any, and shall be paid during the importation related to the pre-exportation. The levies so calculated shall be posted as a revenue for the budget.

The determination of goods subject to taxation and which were used in the manufacture of processed products shall be based on the firm's declaration. If anything contrary to said declaration is later established, any levies unpaid or paid in short shall be collected as of the date of payment specified in the sixth Paragraph, Collection of Public Claims in accordance with the provisions of Law No.6183 Concerning the Procedure of Collection of Public Claims.

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All kinds of war vehicles, tools, equipment, machinery, devices and systems as well the spare parts used in their manufacture, maintenance and repair, which were produced using the goods of a third country origin and exported to the member countries of European Community, shall be exempt from the payment of levies stipulated in this Article.

## **Refunding of Taxes**

**Article 17** – Any taxes paid but should not have been paid under a Domestic Processing Authorization Certificate/Domestic Processing Authorization shall be refunded in cash in accordance with provisions of Customs Law no. ll4458 and Value Added No. 3065 Tax Law upon application of the firm concerned.

### Partial Return of Guarantees

Article 18 – In cases where the processed products obtained from the goods imported under the Conditional Immunity System are exported, the guarantees posted by the firms during importation shall be returned in proportion to the exports realized, upon application of the firm concerned within the term of validity of the Certificate/Authorization. In no case, however, the amount of guarantees returned may exceed 90% of the total amount of taxes required to be collected under the Certificate/Authorization.

### **Closing of Export Commitment**

**Article 19** – The firms holding a Domestic Processing Authorization Certificate/Domestic Processing Authorization must make an application in accordance with the provisions of the Communiqué to be published pursuant to this Resolution, for closing the export commitment of the Certificate/Authorization. Otherwise, the Certificate/Authorization shall be closed ex officio by application of relevant sanction.

The export commitment of a Domestic Processing Authorization Certificate/Domestic Processing Authorization shall be closed in accordance with the provisions of Domestic Processing Regime by taking also the requirements specified in the Certificate/Authorization, provided that the evidence is presented to show that the processed products obtained from the equivalent and/or import goods and the unaltered goods were exported.

The export commitment of the Domestic Processing Authorization Certificate/Domestic Processing Authorization shall be closed by the exportation realized by the firm holding the Certificate/Authorization and/or the intermediary exporting firm. The Undersecretariat, however, may introduce some restrictions regarding the employment of an intermediary exporter.

The goods imported under the Conditional/Immunity System may enter into free movement in accordance with the provisions of first Paragraph of Article 114 and Article 207 of Customs Law No. 4458, provided that relevant trade policy measures are exercised, the goods are seen and examined in their places by the Customs Administration, all other procedures concerning the importation of the goods involved, including the legislation concerning the technical regulatory arrangements and standardization in foreign trade, are completed and all the legally required taxes are collected within the term of validity of the Certificate/Authorization. In this case, the requirement regarding the realization of exportation corresponding to the goods that have entered into free movement shall not apply.

In cases where the goods imported or processed under a Domestic Processing Authorization Certificate/Domestic Processing Authorization were exterminated under the supervision of Customs Administration, left at the Customs or returned to their origin, then the realization of exportation corresponding to such goods shall not be required.

Where the auxiliary processed products obtained from the goods imported under a Domestic Processing Authorization Certificate/Domestic Processing Authorization were exterminated under the supervision of Customs Administrations pursuant to Customs legislation, left at the Customs, delivered to the Customs with the effect of exit or imported according to the provisions of Entry into Free Movement Regime, prior to the closing of export commitment of the Certificate/Authorization, then the realization of export of such products shall not be required. The procedures and principles concerning the import of

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auxiliary processed products according to the Entry into Free Movement Regime shall be set forth in a Communiqué to be published pursuant to this Resolution.

The procedures and principles concerning the actions to be taken in cases where the processed products committed to be exported under a Domestic Processing Authorization Certificate are delivered in Turkey to the firms holding that Certificate or where the goods exported under the Certificate/Authorization are returned by their consignee shall be set forth in a Communiqué to be published pursuant to this Resolution.

Following the closing of export commitment, the guarantee or taxes collected under the Domestic Processing Authorization Certificate/Domestic Processing Authorization shall be returned to the firm concerned, in accordance with the procedures and principles to be set forth in a Communiqué to be published pursuant to this Resolution.

### **Failure to Realize Exportation**

Article 20- Provided that the provisions of Article 15 of this Resolution are reserved, the taxes not collected for the goods which were imported under the Conditional Immunity System but whose exportation as processed products was not realized in accordance with the requirements of the Certificate/Authorization to outside the Turkish Customs Area or to the free zones within the term of validity of Certificate/Authorization (where they were not sold from the free zones to a another country within three (3) months following the expiry of the term of the Certificate/Authorization) shall be collected in accordance with the provisions of Article 22. The provisions of Article 22, however, shall not apply if the goods exported to the free zones as provided above were then imported to the Turkish Customs Area under another Certificate/Authorization within three (3) months following the expiry of the term of the previous Certificate/Authorization.

The tax collected from the goods imported under the refund system but whose exportation in the form as processed products was not realized to outside the Turkish Customs Area or to the free zones within the term of the Certificate/Authorization (if not sold from the free zones to another country within three (3) months following the expiry of the term of Certificate/Authorization) in accordance with the requirements set out in the Certificate/Authorization, shall not be returned.

Provided that the provision of the sixth Paragraph of Article 19 of this Resolution is reserved, if the exportation of auxiliary processed goods was not realized, a document evidencing the payment to relevant Tax Administration the tax to be calculated on the basis of the exchange rate and the rate of tax valid on the date of registration of the Customs Declaration related to the import goods concerned or the exchange rate and the rate of tax valid on the date of registration of Customs declaration related to the auxiliary processed products entered into free movement in the proportion of the exported part of the primary processed products shall be required. Otherwise, necessary action pursuant to the provisions of Article 22 shall be taken.

The tax not previously collected from the goods imported with the purpose of exportation as processed products to the member countries of European Community along with an A.Tr. – Movement Certificate or to the member countries of European Community, to the countries party to the Pan-European Origin Cumulation or to a country that has signed a Free Trade Agreement with Turkey along with an Origin-evidencing Certificate, under a Domestic Processing Authorization Certificate/Domestic Processing Authorization issued in accordance with the Refund System, shall be collected according to the provisions of Article 22.

### **Cancellation of Certificate**

**Article 21** – An Unutilized Domestic Processing Authorization Certificate shall be canceled by the Undersecretariat upon application of relevant firm.

A Domestic Processing Authorization Certificate shall be canceled by the Undersecretariat also in cases where it is established that the provisions of this Resolution as well as the Communiqués and Circulars to be issued pursuant to this Resolution have not been observed, that the information and documents submitted for the insurance or revision of the Domestic Processing Authorization Certificate/Domestic Processing Authorization and the transactions carried out under the Certificate/Authorization were not true or not reflecting the facts or that take Certificates/Authorizations were issued or alterations were made on the

Certificate/Authorization, followed by legal action to be started against those concerned. Furthermore, no guarantee with reduced amount shall not be applicable to the domestic Processing Authorization Certificates/Domestic Processing Authorizations of the firms concerned (including the firms named as side manufacturer on the Certificate of another firm) for a period of one year.

Necessary action shall be taken pursuant to the provisions of Article 22 with regard to any Certificate/Authorization so canceled.

### Failure to Observe the Domestic Processing Measures

Article 22 – The following taxes shall be collected as of the date of importation, pursuant to the provisions of Customs Law No. 4458 and the Law No. 6183 Concerning the Procedure for Collection of Public Claims from those not complying with the Domestic Processing Measures in accordance with the principles and conditions specified in the Domestic Processing Regime and in the Certificate/Authorization. In addition for the goods imported but whose importation was not realized within the prescribed term, a fine amounting to two (2) - fold of the Customs duties involved shall be collected, in accordance with the provision of Article 238 of Law No. 4458,

- a) The tax not collected during the import of goods which were imported under the Conditional Immunity System and whose export to outside the Turkish Customs Area, or to the free zones on condition that they would be sold to another country within three (3) months following the expiry of the term of the Certificate/Authorization, within the term of the Certificate/Authorization, as well as the goods which were not brought to the Turkish Customs Area and which exported to the free zones within the term of the Certificate/Authorization on condition that they would be imported under another Certificate/Authorization within three (3) months following the expiry of the term of the Certificate/Authorization,
- b) In the case of any importation made in excess of the amount allowed under the Certificate/Authorization, the tax arising in connection with such excess amount,
- c) If the foreign-exchange utilization rate exceeds 80% (100% for the Certificates involving the commitment of auxiliary processed agricultural products) even if the goods imported under the Certificate were totally used in obtaining the exported processed products, the tax not collected in connection with the importation made in excess of that rate,
- d) If the CIF import price of operating supplies imported under the Certificate/Authorization is 2% (10% for the Certificates involving a commitment of exportation of natural stones and precious minerals and stones) more than the FOB export price realized, the tax not collected in connection with the importation made in excess of that rate,
- e) If the CIF import price of unaltered goods imported under the Certificate/Authorization is more than 1% of the FOB export price realized, the tax not collected in connection with the importation made in excess of that rate,
- f) The tax not collected in connection with the goods that were imported with the purpose of exportation as processed products to the member countries of European Community along with an A.Tr-Movement Certificate or to the member countries of European Community, to the countries party to the Pan-European Origin Cumulation or to a country that has signed a Free Trade Agreement with Turkey along with an Origin-evidencing Certificate, under a Domestic Processing Authorization Certificate/Domestic Processing Authorization issued in accordance with the Refund System, but whose exportation was not realized within the prescribed term,
- g) In the case of cancellation of the Domestic Processing Authorization Certificate/Domestic Processing Authorization, the tax, if any, not collected, under the Certificate/Authorization, and
- h) In the case of closing, ex officio, of the Domestic Processing Authorization Certificate/Domestic Processing Authorization, the tax, if any, not collected under the Certificate/Authorization.

If it is requested that the goods whose taxes and fines were paid in accordance with the provisions of first Paragraph be subjected to the Free Movement Entry Regime, the requirements concerning the exercising of trade policy measures and the completion of all other procedures including the legislation covering the technical arrangement and standardization contemplated for foreign trade must be fulfilled. Otherwise, such goods must be subjected to a process or use approved by the Customs, other than the Free Movement Entry Regime.

### Misuse of Rights Granted in Connection with Domestic Processing Regime

**Article 23** – If the results of examinations and investigations carried out by the supervising units of the Undersecretariat and other public institutions and organizations and by the Undersecretariat of Customs reveal that a Customs Declarations and the documents attached to it are false or fraudulently altered or not genuine or do not reflect the truth:

- a) That Customs Declaration may not be used in the closing of the export commitment of the Domestic Processing Authorization Certificate/Domestic Processing Authorization involved.
- b) If it was used or presented for use in the closing of the export commitment, than the tax related to the importation corresponding to the exportation made under that declaration shall be collected in accordance with the provisions of Article 22 of this Resolution, and legal action shall be started on those concerned.
- c) No reduced guarantee shall be granted for a period of one (1) year to the Domestic Processing Authorization Certificates/Domestic Processing Authorizations belonging to the firm and/or intermediary exporter holding the Certificate/Authorization registered under that Customs Declaration (including the firms shown as a side manufacturer in the Certificate of another firm). The intermediary exporter involved in this event shall be jointly and severally responsible, together with the firm holding the Certificate/Authorization, for the tax not collected during the importation of the goods used in obtaining the processed products registered in the Customs Declaration concerned.

However, provided that the fraudulent alteration on the Customs Declaration and on the documents attached to it is established not to be made, as based on a final Court decision, by the firm holding the Certificate/Authorization, and that such alteration did not provide any benefit to the firm within the frame of Domestic Processing Regime and that the exportation was actually made, then the provision of first Paragraph shall not apply.

### Inspection

Article 24 — All public institutions and organizations and all banks shall effect the implementation of the Domestic Processing Measures in accordance with the principles and conditions specified in the Domestic Processing Regime and in the Certificate/Authorization. The Undersecretariat may carry out any and all inspections and devise all arrangements concerning the implementation of the measures specified in this Resolution, may request information and documents from the public institutions and organizations and the banks concerned, and may take all necessary measures.

### **SECTION IV**

### MISCELLANEOUS PROVISIONS

## Implementation

Article 25 – The Domestic Processing Authorization Certificates/Domestic Processing Authorizations issued pursuant to the Resolution in force prior to the date of publication of this Resolution shall be governed by the provisions of their respective legislation. The favorable provisions of this Resolution shall be applicable to the Domestic Processing Authorization Certificates/Domestic Processing Authorizations whose export commitment has not been closed yet.

### Authorization

Article 26 – Based on the provisions of this Resolution, the Undersecretariat shall be authorized to issue communiqués and circulars concerning the principles and procedures relevant to the Domestic Processing Regime, to grant authorizations, to give instructions, to examine and finalize any special and urging cases, and to settle any disputes to arise in the implementation by means of administrative procedures and actions.

All procedures to be performed pursuant to the provisions of this resolution may be effected in accordance with the provisions of the Communiqué to be published pursuant to this Resolution, using the computer and data processing techniques.

The Undersecretariat (Director of Foreign Trade) shall be further authorized to revoke the procedures related to the closing of export commitment of a Domestic Processing Authorization Certificate, its cancellation or its closing ex officio (provided that the collection of relevant sanction is found not to have been realized). Whereas, the Undersecretariat of Customs shall be authorized to revoke the procedures related to the closing of export commitment of a Domestic Processing Authorization, its cancellation or its closing ex officio (provided that the collection of relevant sanction is found not to have been realized).

The Undersecretariat shall be authorized to issue Communiqués, circulars and make arrangements with the purpose of facilitating the implementation of the provisions of Domestic Processing Regime with regard to the persons holding an Approved Person Status Certificate, in accordance with the provisions of Customs Legislation.

The duties and powers related to the revision of Domestic Processing Authorization Certificates and the closing of the commitment accounts may be exercised by the Undersecretariat, but the Undersecretariat may transfer them, partly or wholly, to the General Secretariats of other public institution and/or Exporters Associations through a Communiqué to be published pursuant to this Resolution.

Interim Article 1 – The export commitments of Domestic Processing Authorization Certificates issued prior to the date of publication of this Resolution (including the Certificates to which a sanction was applied but whose taxes were not collected) shall be closed provided that the taxes related to the goods procured from domestic market under said Certificates but whose exportation was not realized within the prescribed term are collected in accordance with the provisions of Law No. 6183 Concerning the Procedure of Collection of Public Claims.

Interim Article 2 – The export commitments of Domestic Processing Authorization
Certificates/Export Incentives Certificates issued prior to the date of publication of this resolution and whose terms have expired may be closed with the Customs Declarations containing the trade name of a side manufacturer.

Furthermore, such Customs Declarations may be counted for export commitments provided that the delivery of the processed products concerned whose exportation was committed under a Domestic Processing Authorization Certificate/Export Incentives Certificate issued prior to the date of publication of this Resolution and whose term has expired, to another firm by the firm and/or side manufacturer holding the Certificate is evidenced by the report of a certified financial consultant and that their exportation by that firm and/or intermediary exporter is also established.

Interim Article 3 – The export commitments of Domestic Processing Authorization
Certificates/Domestic Processing Authorizations issued prior to the date of publication of this Resolution and whose terms have expired, which belong to the firms that have exported the processed products obtained from the goods imported under Domestic Processing Regime and subject to the measures of supervision and protection to the member countries of European Community along with an A.TR- Movement Certificate but do not hold an import license and/or supervision certificate related to such goods (including those issued in the name of side manufacturer or intermediary exporter), shall be closed in accordance with the provisions of applicable legislation without requiring the import licenses and/or supervision certificates related to said goods, provided that all other conditions are fulfilled.

**Interim Article 4** – The export commitment of Domestic Processing Authorization Certificates Belonging to the same firm, which were issued prior to the date of publication of this Resolution and whose terms expired latest on 31 December 2004, may be closed together provided that the terms of certificates overlap each other.

Interim Article 5 – An extension of 18 months starting from the date of publication of this Resolution shall be granted to the Domestic Processing Authorization Certificates/Domestic Processing Authorizations (including the Certificates/Authorizations to which a sanction was applied but whose taxes were not collected) issued prior to the date of publication of this resolution in the name of debtors whose debts have been restructured and put under a new redemption plan according to the financial restructuring agreements prepared within the frame of Law No. 4743 dated 30 January 2002 and the agreements made with the Savings Deposit Account Insurance Fund. An additional extension may also be granted in accordance with the provisions of the Communiqué to be published on the basis of this Resolution, by taking into consideration the export performance shown under the Certificate/Authorization concerned.

The export commitments of Domestic Processing Authorization Certificates/Domestic Processing Authorizations granted an extension as stated above may be closed by the exports to be made by the debtors or codebtor and joint guarantors named in the agreement made with the firm or group firms holding the Certificate/Authorization or with the Savings Deposit Account Insurance Fund.

**Interim Article 6** – The favorable provisions of this Resolution shall apply to the Domestic Processing Authorization Certificates/Domestic Processing Authorizations whose export commitments have not been closed yet, disregarding the dates of application specified in the respective legislations of the Certificate/Authorization concerned and in this Resolution.

**Interim Article 7** – The extensions granted to the Domestic Processing Authorization Certificates in accordance with the Resolution attached to Decree No. 2003/5548 dated 25 April 2003, published in Official Gazette No. 25107 dated 13 May 2003, with the purpose of realization of export commitment, shall be taken and accepted as the term of the Certificate concerned.

Interim Article 8 – In cases where the rate of 10 % (90 % foreign-exchange utilization rate) specified in Article 9 of this Resolution is exceeded for the raw materials and semi-finished and finished products which could not be procured domestically under the Domestic Processing Authorization Certificates issued prior to the date of publication of this Resolution, the export commitment may be closed provided that the imported goods are established to have been exported as processed products and it is approved by the Undersecretariat.

Interim Article 9 – The export commitments of Domestic Processing Authorization Certificates related to special invoices (including the Certificates to which a sanction was applied but whose taxes were not collected), which were registered prior to the date of publication of this Resolution, by the Customs Administrations not authorized to issue special invoices, but could not be counted for export commitment because no confirmation could be obtained from said Administrations, shall be closed with exports to be made within six (6) months following the date of publication of this Resolution. Any exports to be realized between the end of the term of the Certificate and the date of publication of this Resolution shall also be counted for the export commitment of the Certificate involved.

Interim Article 10 – Provided that evidence is presented to show that the processed products exported to a country that has signed a Free Trade Agreement with Turkey, along with Origin-evidencing Certificates, and under a Domestic Processing Authorization Certificate issued prior to the date of publication of this Resolution and whose term has expired were subsequently exported to another country without taking advantage of the Preferential Tariff application, then the payment of levies applicable to the raw materials, semi-finished products, finished products and unaltered goods used in obtaining such processed products shall not be required.

**Interim Article 11** – Provided that the Customs Administration concerned establishes that the goods imported under Export Incentives Certificates having Code Numbers 1 and 2 and whose commitment accounts have not been closed were exported as processed products within the term of the Certificate and this information is communicated to the General Secretariat of relevant Exporters Association, the export commitments of said Certificates shall be closed ex officio by the General Secretariat of the Exporters Association, without application of any sanction to the imported goods corresponding to that exportation.

If the Customs Administration concerned established that the goods imported under the Export Incentives Certificates having Code Number 3 and whose commitment accounts have not been closed were exported as processed products within the term of the Certificate, them the export commitments of said Certificates shall be closed ex officio by that Customs Administration, without application of any sanction to the imported goods corresponding to that exportation.

**Supplementary Article 1** – The "Guarantee Insurance" account kept at Türkiye İhracat Kredi Bankası (Türk Eximbank) shall be liquidated by relevant Customs Administrations by transferring the amount available in that account to the claims approved by the Undersecretariat of Customs, in order to cover the State loss claimed by making a reference to said account. Furthermore, following this liquidation process, the relevant Customs Administrations shall continue prosecution against relevant firms in accordance with the provisions of Law No. 6183 dated 21 July 1953 in order to cover the State loss involved, without having any applications directed to Türkiye İhracat Kredi Bankası A.Ş. for collecting of said public claims by making a reference to said account.

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## **Provisions Rescinded**

**Article 27** – The Resolution attached to Decree No. 99/13819 dated 23 December 1999 is hereby rescinded together with its appendices and amendments.

# **Entry into Force**

Article 28 – This Resolution shall enter into force on the date of its publication.

## **Enforcement**

Article 29 - This Resolution shall be enforced by the Minister to whom the Undersecretariat of Foreign Trade reports.

# DAHİLDE İŞLEME REJİMİ KARARI

## **BİRİNCİ BÖLÜM**

27/01/2005 Tarih ve 25709 Sayılı Resmi Gazete

## AMAÇ, KAPSAM VE TANIMLAR

### **Amaç**

**Madde 1-** Bu Karar; Dünya piyasa fiyatlarından hammadde temin etmek suretiyle ihracatı artırmak, ihraç ürünlerine uluslararası piyasalarda rekabet gücü kazandırmak, ihraç pazarlarını geliştirmek ve ihraç ürünlerini çeşitlendirmek amacıyla hazırlanmıştır.

## Kapsam

**Madde 2-** Bu Karar; elde edilmesinde ithal girdi kullanılan işlem görmüş ürünün ihracı ile ihracat sayılan satış ve teslimlerin belirlenmesi, yönlendirilmesi ve geliştirilmesine ilişkin tedbirlerin düzenlenmesi ve yürütülmesini kapsar.

### Tanımlar

Madde 3- Bu Kararda geçen;

Müsteşarlık: Dış Ticaret Müsteşarlığını,

Topluluk: Avrupa Topluluğunu,

Üçüncü Ülke: Avrupa Topluluğuna üye ülkeler dışındaki ülkeleri,

Serbest Bölgeler: Türkiye Gümrük Bölgesi üzerindeki serbest bölgeleri,

**Serbest Dolaşımda Bulunan Eşya:** 4458 sayılı Gümrük Kanununun 18 inci maddesi hükmüne göre tümüyle Türkiye Gümrük Bölgesinde elde edilen ve bünyesinde Türkiye Gümrük Bölgesi dışındaki ülke veya topraklardan ithal edilen girdileri bulundurmayan veya şartlı muafiyet düzenlemelerine tabi tutulan eşyadan elde edilen ve tabi olduğu rejim hükümleri uyarınca özel ekonomik önem taşımadığı tespit edilen veya Türkiye Gümrük Bölgesi dışındaki ülke veya topraklardan serbest dolaşıma giriş rejimine tabi tutularak ithal edilen veya Türkiye Gümrük Bölgesinde yukarıda belirtilen eşyadan ayrı ayrı veya birlikte elde edilen veya üretilen esyayı,

**İşleme Faaliyeti:** Eşyanın montajı, kurulması ve diğer eşya ile birleştirilmesi dahil olmak üzere işçiliğe tabi tutulması, işlenmesi, yenilenmesi, düzenli hale getirilmesi dahil olmak üzere tamir edilmesi ile işleme sırasında tamamen veya kısmen tüketilse dahi işlem görmüş ürünün bünyesinde bulunmayan ancak, bu ürünün üretilmesini sağlayan veya kolaylastıran önceden belirlenmiş bazı eşyanın kullanılmasını,

Elde Etmek: Eşyanın işleme faaliyetine tabi tutulmasını,

İşlem Görmüş Ürün: İşleme faaliyetleri sonucunda elde edilen asıl veya ikincil işlem görmüş ürünü,

Asıl İşlem Görmüş Ürün: Dahilde işleme rejimi kapsamında elde edilmesi amaçlanan ürünü,

**İkincil İşlem Görmüş Ürün:** İşleme faaliyetleri sonucunda elde edilen asıl işlem görmüş ürün dışındaki ürünü,

**İthal Eşyası:** İşlem görmüş ürünün elde edilmesinde kullanılan hammadde, yardımcı madde, yarı mamul, mamul ile işlem görmüş ürünün bünyesinde yer almamakla birlikte çalışmasını sağlayan madde (yakıt ve yağ dahil) ya da hizmetin devamını sağlayan madde (yedek parça, vb.), ambalaj ve işletme malzemesini,

İşletme Malzemesi: İhracı taahhüt edilen işlem görmüş ürünün elde edilmesinde kullanılan ancak ürünün bünyesinde yer almayan ve sabit tesislerin çalışabilir durumda olmasını temin eden (enerji ve yakıt hariç), yatırım malı makine ve teçhizat niteliğinde olmayan malzemeyi,

Değişmemiş Eşya: İşlem görmemiş ithal eşyasını,

**Tarım Ürünleri:** İthalat Rejimi Kararının ilgili listelerinde yer alan ve toprakta veya yeni üretim teknikleri ve teknolojileri kullanarak topraksız ortamda yetiştirilen bitkisel ürünler, hayvancılık, balıkçılık ile diğer su ürünleri ve bunların ilk işleme tabi tutulmuş şekillerini,

**İşlenmiş Tarım Ürünleri:** İthalat Rejimi Kararının ilgili listesinde yer alan ve bünyesinde temel tarım ürünlerini (hububat, şeker ve süt) bulunduran ürünleri,

Sanayi Ürünleri: Tarım ürünleri ve işlenmiş tarım ürünleri dışındaki tüm ürünleri,

**Fire:** İşleme faaliyetleri sırasında özellikle kuruma, buharlaşma, sızma veya gaz kaçağı şeklinde yitirilen ve imha olan kısım ile ekonomik değeri olmayan atıkları,

**Verimlilik Oranı:** Belirli miktardaki eşyanın işlenmesi sonucunda elde edilen işlem görmüş ürünün miktarı veya yüzde oranını,

**Döviz Kullanım Oranı:** Dahilde işleme izin belgesi/dahilde işleme izni kapsamındaki CIF ithal (yurt içi alımlar hariç) tutarının FOB ihraç tutarına olan yüzde oranını,

**Önceden İthalat:** İşlem görmüş ürünün ihracından önce bu ürünün elde edilmesinde kullanılacak eşyanın ithalini,

**Önceden İhracat:** İthal eşyasının şartlı muafiyet sisteminde ithal edilmesinden önce, eşdeğer eşyadan elde edilmiş işlem görmüş ürünün ihraç edilmesini,

**Eşdeğer Eşya:** İşlem görmüş ürünün elde edilmesinde ithal eşyasının yerine kullanılan ve ithal eşyası ile asgari 8 (sekiz)'li bazda gümrük tarife istatistik pozisyonu, ticari kalite ve teknik özellikleri itibarıyla aynı kalite ve nitelikleri taşıyan serbest dolaşımda bulunan eşyayı,

**Ticaret Politikası Önlemleri:** İthalat Rejimi Kararının 4 üncü maddesinde belirtilen mevzuat çerçevesinde alınan önlemleri,

**Vergi:** Eşyanın ithali ve ihracında tahsili öngörülen vergi, resim, harç, fon ve benzeri bütün mali yükleri,

**Eşyanın Gümrükçe Onaylanmış Bir İşlem veya Kullanıma Tabi Tutulması:** Eşyanın bir gümrük rejimine tabi tutulması, Türkiye Gümrük Bölgesi dışına yeniden ihracı veya serbest bölgelere ihracı, imhası veya gümrüğe terk edilmesini,

**Gümrük Rejimi:** Serbest dolaşıma giriş rejimi, transit rejimi, gümrük antrepo rejimi, dahilde işleme rejimi, gümrük kontrolü altında işleme rejimi, geçici ithalat rejimi, hariçte işleme rejimi veya ihracat rejimini,

**Dahilde İşleme İzin Belgesi:** İhracat ile ihracat sayılan satış ve teslimlerde gümrük muafiyetli ithalat ve/veya yurt içi alımlara imkan sağlayan Müsteşarlıkça düzenlenen belgeyi,

Belge: Dahilde işleme izin belgesini,

Belge Süresi: Dahilde işleme izin belgesi üzerinde kayıtlı bulunan ve belge kapsamında ithalat ve/veya ihracat işlemlerinin gerçekleştirileceği ve tüm istisnaların uygulanacağı dönemi,

Belge Süresi Sonu: Belge süresi bitiminin rastladığı ayın son gününü,

**Dahilde İşleme İzni:** İhraç amacıyla gümrük muafiyetli ithalata imkan sağlayan ve gümrük idaresince verilen izni,

İzin: Dahilde işleme iznini,

İzin Süresi: Dahilde işleme izni üzerinde kayıtlı bulunan ve izin kapsamında ithalat ve/veya ihracat işlemlerinin gerçekleştirilerek tüm istisnaların uygulanacağı dönemi,

İzin Süresi Sonu: İzin süresi bitiminin rastladığı ayın son gününü,

**Onaylanmış Kişi Statü Belgesi:** Gümrük mevzuatı çerçevesinde Gümrük Müsteşarlığınca verilen belgeyi,

**A.TR Dolaşım Belgesi:** Türkiye veya Toplulukta serbest dolaşımda bulunan eşyanın Katma Protokolde öngörülen tercihli rejimden yararlanabilmesini sağlamak üzere, ihracatçı ülke yetkili kuruluşlarınca düzenlenip gümrük idaresince vize edilen belgeyi,

**Menşe İspat Belgeleri:** Türkiye'nin taraf olduğu anlaşmalar çerçevesinde tercihli rejimden yararlanmak üzere ihracatçı ülke yetkili kuruluşlarınca düzenlenip gümrük idaresince vize edilen ve malın menşeini belirleyen EUR.1 dolaşım sertifikası veya fatura beyanını,

**Pan-Avrupa Menşe Kümülasyonu:** Avrupa'da, aynı menşe kurallarını havi Serbest Ticaret Anlaşmaları ile birbirlerine bağlanmış ülkeler arasında oluşturulan ve taraf ülkeler menşeli eşya kullanılarak elde edilen işlem görmüş ürünün Kümülasyona tabi bir diğer ülkeye tercihli rejim kapsamında ithaline imkan sağlayan ticaret sistemini,

**Tedarikçi Beyanı:** A.TR dolaşım belgesi veya EUR.1 dolaşım sertifikası ile birlikte kullanılan ve Türkiye ile Topluluk arasında ticarete konu Pan-Avrupa Menşe Kümülasyonu kapsamı eşyanın menseini gösteren belgeyi,

**İmalatçı-İhracatçı:** İşlem görmüş ürünün tamamını veya bir kısmını üreten ve bu ürünün ihracatını kendisi ve/veya aracı ihracatçı vasıtasıyla gerçekleştiren dahilde işleme izin belgesi/dahilde işleme izni sahibi firmayı,

**İhracatçı:** Yan sanayici firmaya ithal eşyasından işlem görmüş ürün ürettiren ve bu ürünün ihracatını kendisi ve/veya aracı ihracatçı vasıtasıyla gerçekleştiren imalatçı olmayan dahilde işleme izin belgesi/dahilde işleme izni sahibi firmayı,

Yan Sanayici: Dahilde işleme izin belgesinde/dahilde işleme izninde taahhüt edilen ihraç ürününün tamamını ya da bir kısmını üreten, belgede/izinde kayıtlı ancak belge/izin sahibi olmayan firmayı,

**Aracı İhracatçı:** Dahilde işleme izin belgesinde/dahilde işleme izninde taahhüt edilen ihracatı, belge/izin sahibi firmadan tedarik ettiği şekliyle gerçekleştiren belge/izin sahibi olmayan firmayı,

ifade eder.

# DAHİLDE İŞLEME TEDBİRLERİ

# Dahilde İşleme Tedbirleri

**Madde 4** - Bu tedbirler:

- Şartlı Muafiyet Sistemi,
- Geri Ödeme Sistemi'nden

oluşur.

## Şartlı Muafiyet Sistemi

**Madde 5-** Şartlı muafiyet sistemi; dahilde işleme izin belgesi/dahilde işleme izni kapsamında ihracı taahhüt edilen işlem görmüş ürünün elde edilmesinde kullanılan ve serbest dolaşımda bulunmayan hammadde, yardımcı madde, yarı mamul, mamul ile değişmemiş eşya, ambalaj ve işletme malzemesinin, Türkiye Gümrük Bölgesinde (serbest bölgeler hariç) yerleşik firmalarca, ticaret politikası önlemlerine tabi tutulmaksızın, vergisi teminata bağlanmak suretiyle ithal edilmesi ve ihracat taahhüdünün gerçekleşmesini müteakip, alınan teminatın iade edilmesidir. Bu kapsamda yapılacak işletme malzemesi ithalatında, katma değer vergisi ve özel tüketim vergisi tahsil edilir ve ticaret politikası önlemleri uygulanır.

Dahilde işleme izin belgesi kapsamında işlem görmüş ürünün elde edilmesi için ithal eşyasının yerine eşdeğer eşya olarak, asgari 8 (sekiz)'li bazda gümrük tarife istatistik pozisyonu, ticari kalite ve teknik özellikleri itibarıyla aynı kalite ve nitelikleri taşıyan serbest dolaşımdaki eşya kullanılabilir. Bu sistem çerçevesinde, dahilde işleme izin belgesi kapsamında önceden ihracat işleminden sonra ithalat yapılabileceği gibi, ithal eşyası ile serbest dolaşımdaki eşya birlikte de kullanılabilir. Müsteşarlıkça (İhracat Genel Müdürlüğü), eşdeğer eşyanın kullanımına süresiz veya dönemsel olarak yasaklama veya kısıtlama getirilebilir. İthal eşyasının ithalinden önce eşdeğer eşyadan elde edilen işlem görmüş ürünün ihracı halinde, buna tekabül eden ithalat belge süresi sonuna kadar yapılabilir. Bu kapsamda yapılacak ithalat esnasında katma değer vergisi dahil tüm vergiler (4760 sayılı Özel Tüketim Vergisi Kanunu hükümleri saklı kalmak kaydıyla) teminata bağlanır ve ticaret politikası önlemleri uygulanmaz. Önceden ihracat işleminden sonra buna tekabül eden oranda ithal edilen eşya, belge sahibi firma tarafından serbestçe kullanılabilir.

İşlem görmüş ürünün eşdeğer eşyadan elde edildiği durumlarda, gümrük işlemlerinde ithal eşyası eşdeğer eşya, eşdeğer eşya ise ithal eşyası olarak değerlendirilir. Önceden ihracat konusu işlem görmüş ürünün ihracat vergisine tabi eşdeğer eşyadan elde edilmesi halinde ise, bu eşyaya tekabül eden ithalatın yapılmasından sonra iade edilmek üzere ihracat vergisi kadar teminat alınır.

Ayrıca, dahilde işleme izin belgesi kapsamında ihracı taahhüt edilen işlem görmüş ürünün elde edilmesinde kullanılan hammadde, yardımcı madde, yarı mamul, mamul, değişmemiş eşya ve ambalaj malzemeleri birinci fikra hükmüne göre ithal edilebileceği gibi, bu konuda yapılan düzenlemeler çerçevesinde yurt içinden de temin edilebilir. Dahilde işleme izin belgesi kapsamında ihraç edilmek üzere yurt içinden temin edilen eşya, bu Kararın uygulanması bakımından (3065 sayılı Katma Değer Vergisi Kanunu ve 4760 sayılı Özel Tüketim Vergisi Kanunu hükümleri saklı kalmak kaydıyla) ithal eşyası gibi değerlendirilir.

Ancak, yurt içinden temin edilen eşya için, bu Kararın ikincil işlem görmüş ürüne ve döviz kullanım oranına ilişkin hükümleri uygulanmaz. Ayrıca, yurt içinden temin edilen eşyanın belge süresi içerisinde işlem görmüş ürün olarak ihracının gerçekleştirilmemesi halinde, bu Kararın 22 nci maddesinde belirtilen 2 (iki) kat para cezası uygulanmaz.

Dahilde işleme izin belgesi kapsamındaki yurt içi alımın, belge süresi içerisinde gerçekleştirilmesi gerekir. Ancak, bu Karara istinaden yayımlanacak tebliğ hükümleri çerçevesinde işlem görmüş ürünün ihracının gerçekleştiğinin belgelenmesi kaydıyla, süresi sona erse dahi dahilde işleme izin belgesi kapsamında yurt içi alım yapılabilir ve bu alımlarda teminat aranmayabilir. Ayrıca, belge kapsamında yurt içi alımın yapılmasına imkan bulunmaması halinde, belgeye ek süre verilmek suretiyle ithalat yapılmasına izin verilebilir.

## Teminat ve İndirimli Teminat Uygulaması

**Madde 6-** Şartlı muafiyet sistemi kapsamında yapılacak ithalattan doğan vergi, 6183 sayılı Amme Alacaklarının Tahsil Usulü Hakkında Kanunda belirtilen esaslar cercevesinde teminata tabidir.

### Ancak;

- a) A sınıfı onaylanmış kişi statü belgesi sahibi firmaların dahilde işleme izin belgesi/dahilde işleme izni kapsamında yapacakları ithalatta, bu ithalattan doğan verginin %1'inin,
- b) B sınıfı onaylanmış kişi statü belgesi sahibi firmaların dahilde işleme izin belgesi/dahilde işleme izni kapsamında yapacakları ithalatta, bu ithalattan doğan verginin %5'inin,
- c) C sınıfı onaylanmış kişi statü belgesi sahibi firmaların dahilde işleme izin belgesi/dahilde işleme izni kapsamında yapacakları ithalatta, bu ithalattan doğan verginin %10'unun,
- d) Onaylanmış kişi statü belgesi sahibi olmayan dış ticaret sermaye şirketleri ile sektörel dış ticaret şirketlerinin belge/izin müracaat tarihinden önceki takvim yılı içerisinde gerçekleştirdikleri ihracat kadar dahilde işleme izin belgesi/dahilde işleme izni kapsamında yapacakları ithalatta, bu ithalattan doğan verginin %10'unun,
- e) İmalatçı-ihracatçıların, belge/izin müracaat tarihinden önceki dört yıl içerisinde düzenlenmiş, ihracat taahhüdü kapatılmış, dahilde işleme izin belgeleri ve bu Kararın yayımı tarihinden sonra düzenlenen dahilde işleme izinleri kapsamında sanayi ürünleri için toplam 1 (bir) Milyon ABD Dolarından, tarım ve işlenmiş tarım ürünleri için toplam 500 (beşyüz) Bin ABD Dolarından az olmamak kaydıyla gerçekleştirdikleri ihracat kadar dahilde işleme izin belgesi/dahilde işleme izni kapsamında yapacakları ithalatta, bu ithalattan doğan verginin %10'unun,

f) Son üç takvim yılı itibarıyla ihracatı her bir yıl için 5 (beş) Milyon ABD Dolarını geçen veya son beş takvim yılı itibarıyla ihracatı her bir yıl için 1 (bir) Milyon ABD Dolarını geçen ihracatçıların, belge/izin müracaat tarihinden önce dört yıl içerisinde düzenlenmiş, ihracat taahhüdü kapatılmış, dahilde işleme izin belgeleri ve bu Kararın yayımı tarihinden sonra düzenlenen dahilde işleme izinleri kapsamında sanayi ürünleri için toplam 1 (bir) Milyon ABD Dolarından, tarım ve işlenmiş tarım ürünleri için toplam 500 (beşyüz) Bin ABD Dolarından az olmamak kaydıyla gerçekleştirdikleri ihracat kadar dahilde işleme izin belgesi/dahilde işleme izni kapsamında yapacakları ithalatta, bu ithalattan doğan verginin %10'unun,

teminat olarak yatırılması kaydıyla, gümrük idaresince ithalatın gerçekleştirilmesine izin verilir.

İndirimli teminat uygulamasının hesaplanmasına ilişkin usul ve esaslar, bu Karara istinaden yayımlanacak tebliğ ile belirlenir.

Bu Karara istinaden yayımlanacak tebliğ hükümleri çerçevesinde dahilde işleme izin belgesi kapsamında işlem görmüş ürünün ihracının belgelenmesini müteakip bu ürünün elde edilmesinde kullanılan eşyaya ilişkin verginin %10'unun teminat olarak yatırılması kaydıyla, ithalatın gerçekleştirilmesine gümrük idaresince izin verilir.

İndirimli teminat uygulamasından doğabilecek amme alacağı (yurt içi teslimleri yapan kamu kurum ve kuruluşlarının alacakları dahil) ilgili firmalardan 6183 sayılı Amme Alacaklarının Tahsil Usulü Hakkında Kanun hükümleri çerçevesinde tahsil edilir. Ayrıca, bu firmaların kamudan olan alacakları da teminat hükmündedir.

Şartlı muafiyet sistemi kapsamında yapılan ithalatta uygulanan teminat oranı Müsteşarlıkça (İhracat Genel Müdürlüğü), bu ithalattan doğan vergi tutarının 2 (iki) katına kadar artırılabilir.

# Türkiye Gümrük Bölgesi Dışında veya Serbest Bölgelerde Yapılacak İşleme Faaliyeti

**Madde 7-** Şartlı muafiyet sistemi kapsamında, işlem görmüş ürünün veya değişmemiş eşyanın tamamı ya da bir kısmı, hariçte işleme rejimi hükümleri çerçevesinde daha ileri düzeyde işlenmek üzere Türkiye Gümrük Bölgesi dışına veya serbest bölgelere geçici olarak ihraç edilebilir. Bu kapsamda işlem görmüş ürünün ithaline, hariçte işleme rejimi hükümlerine göre tahsili gereken vergi kadar teminat alınarak izin verilir.

## Geri Ödeme Sistemi

**Madde 8-** Geri ödeme sistemi; dahilde işleme izin belgesi/dahilde işleme izni kapsamında serbest dolaşıma giren hammadde, yardımcı madde, yarı mamul, mamul ile değişmemiş eşya, ambalaj ve işletme malzemesinden elde edilen işlem görmüş ürünün ihracı halinde, ithalat esnasında alınan verginin (işletme malzemesine ilişkin katma değer vergisi ve özel tüketim vergisi hariç) geri ödenmesidir.

Ancak, A.TR dolaşım belgesi eşliğinde Avrupa Topluluğuna üye ülkelere ihraç edilecek işlem görmüş ürünün elde edilmesinde kullanılacak hammadde, yardımcı madde, yarı mamul, mamul ile değişmemiş eşyanın gümrük vergisi ile varsa toplu konut fonunun tahsil edilmesi ve diğer vergilerin teminata bağlanması suretiyle ithalatına izin verilebilir.

Ayrıca, menşe ispat belgeleri eşliğinde Avrupa Topluluğuna üye ülkelere, Pan-Avrupa Menşe Kümülasyonuna taraf ülkelere veya Serbest Ticaret Anlaşması imzalanmış bir ülkeye ihraç edilecek işlem görmüş ürünün elde edilmesinde kullanılacak hammadde, yardımcı madde, yarı mamul, mamul ile değişmemiş eşyanın gümrük vergisi ile varsa toplu konut fonunun tahsil edilmesi ve diğer vergilerin teminata bağlanması suretiyle ithalatına izin verilebilir.

Geri ödeme sisteminden yararlanmak için, dahilde işleme izin belgesi/dahilde işleme izni alınması ve eşyanın geri ödeme sistemi kapsamında olduğunun gümrük idaresince ithalat esnasında belgeye/izne ilişkin gümrük beyannamesine kaydedilmesi zorunludur. Ayrıca, dahilde işleme izin belgesi ile ilgili bilgiler gümrük beyannamesi üzerinde belirtilir ve belgenin bir örneği gümrük beyannamesine eklenir.

Geri ödeme sisteminden, Avrupa Topluluğu'na üye ülkeler menşeli tarım ürünleri ithalatı hariç olmak üzere;

- a) İthali miktar kısıtlamalarına tabi olan,
- b) Tercihli tarife ya da özel bir şartlı muafiyet düzenlemesinden kotalar dahilinde yararlanabilen,
- c) Tarım politikası veya işlenmiş tarım ürünleriyle ilgili özel düzenlemeler çerçevesinde ithalat vergilerine tabi olan,
- d) İthal eşyasının serbest dolaşıma giriş beyanının kabulü esnasında, işlem görmüş ürünlerden parasal ihracat iadesine tabi olan,

eşya yararlandırılmaz.

Ayrıca;

- a) Bu maddenin ikinci fıkrası hükmü saklı kalmak kaydıyla, üçüncü ülke menşeli eşya kullanılarak elde edilen işlem görmüş ürünün A.TR dolaşım belgesi eşliğinde Avrupa Topluluğuna üye ülkelere,
- b) Bu maddenin üçüncü fikrası hükmü saklı kalmak kaydıyla, üçüncü ülke menşeli eşyadan elde edilen işlem görmüş ürünün menşe ispat belgeleri eşliğinde Avrupa Topluluğuna üye ülkelere,
- c) Bu maddenin üçüncü fikrası hükmü saklı kalmak kaydıyla, Serbest Ticaret Anlaşması imzalanmış ülke menşeli olmayan eşyadan elde edilen işlem görmüş ürünün menşe ispat belgeleri eşliğinde anlaşma imzalanmış ülkeye,
- d) Bu maddenin üçüncü fikrası hükmü saklı kalmak kaydıyla, Pan-Avrupa Menşe Kümülasyonuna taraf ülkeler menşeli olmayan eşyadan elde edilen Kümülasyona dahil işlem görmüş ürünün menşe ispat belgeleri eşliğinde Kümülasyona taraf ülkelere,
- e) Serbest dolaşımda bulunan eşyadan üretilen işlem görmüş ürünün serbest bölgelere (serbest bölgelerden belge/izin süresi bitiminden itibaren 3 (üç) ay içerisinde (a) ila (d) bentlerinde belirtilen ülkeler haricinde bir ülkeye yapılan satışlar hariç),

ihraç edilmesi halinde bu ihracat, geri ödeme sisteminden yararlandırılmaz.

# ÜÇÜNCÜ BÖLÜM

## **GENEL HÜKÜMLER**

Müracaatların Değerlendirilmesi ve Belge/İzin Düzenlenmesi

**Madde 9-** Türkiye Gümrük Bölgesinde (serbest bölgeler hariç) yerleşik firmaların, dahilde işleme rejiminden yararlanmak için bu Karara istinaden yayımlanacak tebliğ hükümleri çerçevesinde dahilde işleme izin belgesi/dahilde işleme izni almaları gerekir. Bu çerçevede ibraz edilen bilgi ve belgeler, aksi sabit oluncaya kadar doğru kabul edilir.

Dahilde işleme izin belgesine/dahilde işleme iznine ilişkin müracaat;

- a) İthal eşyasının işlem görmüş ürünün elde edilmesinde kullanıldığının tespitinin mümkün olması,
- b) Türkiye Gümrük Bölgesindeki (serbest bölgeler hariç) üreticilerin temel ekonomik çıkarları ile Türk malı imajının olumsuz etkilenmemesi,
- c) İşleme faaliyetinin, katma değer yaratan ve kapasite kullanımını artıran bir faaliyet olması yanında, işlem görmüş ürünün rekabet gücünü ve ihraç potansiyelini artıran koşullar yaratıyor olması,
  - d) Firmaların dahilde işleme izin belgeleri/dahilde işleme izinleri kapsamındaki performansları,

kriterleri çerçevesinde değerlendirilir.

İkinci fıkrada belirtilen kriterlere göre yapılacak değerlendirme sonucunda; ithal eşyası ve işlem görmüş ürünün (asıl ve ikincil işlem görmüş ürünler) asgari 8 (sekiz)'li bazda gümrük tarife istatistik pozisyonu, adı, verimlilik oranına göre belirlenen miktarı, değeri, belge/izin süresi, döviz kullanım oranı ve varsa yan sanayici belirlenerek, proje bazında dahilde işleme izin belgesi/dahilde işleme izni düzenlenir veya talep reddedilir.

Eşyanın fiyat, bulunabilirlik ve kalite yönünden yurt içinden temin edilmesinin mümkün olup olmaması dikkate alınarak, dahilde işleme izin belgesi kapsamındaki eşyanın kısmen veya tamamen ithalatına (yurt içi alımlar hariç) süresiz veya dönemsel olarak kısıtlama getirilebilir.

Dahilde işleme rejiminden yararlandırılmayacak haller, bu Karara istinaden yayımlanacak tebliğ ile belirlenir.

Dahilde işleme izni ve bu Karara istinaden yayımlanacak tebliğ ile belirlenen bedelsiz ithalata ilişkin dahilde işleme izin belgeleri kapsamında döviz kullanım oranı aranmaz.

Dahilde işleme izin belgesi kapsamında döviz kullanım oranı azami %80'dir. Ancak, ikincil işlem görmüs tarım ürünleri taahhüdü içeren belgelerde bu oran azami %100 olarak tespit edilebilir.

Dahilde işleme izin belgesi/dahilde işleme izni kapsamında ihracat taahhüdünün azami %1'i oranında değişmemiş eşya ithalatına izin verilebilir. Ayrıca, belge/izin kapsamında ithaline izin verilecek işletme malzemesi değeri, ihracat taahhüdünün %2'sini geçemez. Ancak, doğal taşlar ile kıymetli maden ve taş ihraç taahhüdü içeren belgede/izinde, bu oran %10'a kadar tespit edilebilir.

## Belge/İzin Süreleri ve Ek Süreler

**Madde 10-** Dahilde işleme izin belgesinin/dahilde işleme izninin süresi sektörüne göre azami 12 (oniki) aya kadar tespit edilebilir.

Ancak, bu Karara istinaden yayımlanacak tebliğ ile belirlenen faaliyet ve/veya ürünlerin ihracına ilişkin düzenlenen belgelerin/izinlerin süresi, proje süresi kadar tespit edilebilir.

Sürenin başlangıcı, dahilde işleme izin belgesinin/dahilde işleme izninin tarihidir. Süre sonu ise, belge/izin süresi (ek süre, haklı ve mücbir sebep ile fevkalade hallere ilişkin süreler dahil) bitiminin rastladığı ayın son günüdür.

Dahilde işleme izin belgesi kapsamında ilk ithalatın yapıldığı tarih esas alınmak suretiyle belge süresi azami 3 (üç) ay uzatılır. Ayrıca, firmanın belgeli performansı dikkate alınarak dahilde işleme izin belgesine verilecek ek süreler, bu Karara istinaden yayımlanacak tebliğ ile belirlenir.

Haklı ve Mücbir Sebep ile Fevkalade Haller

**Madde 11-** Bu Karara istinaden yayımlanacak tebliğle belirlenen haklı ve mücbir sebep ile fevkalade hallerin belge/izin süresi içerisinde meydana gelmesi halinde, dahilde işleme izin belgesine/dahilde işleme iznine ilave süre verilebilir. Haklı ve mücbir sebep ve fevkalade hallere istinaden belgeye/izne verilecek ilave süre, haklı ve mücbir sebep ile fevkalade hal süresi dikkate alınarak belirlenir.

Mücbir sebep ile fevkalade haller nedeniyle; dahilde işleme izin belgesi/dahilde işleme izni kapsamında ihracat taahhüdü aranmayacak veya bu durumda yeni ithalata izin verilecek haller ile ithal edilen eşyanın dahilde işleme rejiminden yararlanma koşullarına sahip başka bir firma adına düzenlenen belgeye/izne devredilmesine ilişkin usul ve esaslar, bu Karara istinaden yayımlanacak tebliğ ile belirlenir.

Şartlı muafiyet sistemi kapsamında haklı sebebe ilişkin verilecek ek süre içerisinde, belge/izin kapsamında alınacak teminat tutarı 2 (iki) katına kadar artırılabilir.

## Belge/İzin Revizesi

**Madde 12-** Dahilde işleme izin belgesi/dahilde işleme izni, ilgili firma tarafından gerekli bilgi ve belgelerle müracaat edilmesi kaydıyla, bu Karara istinaden yayımlanacak tebliğ hükümleri çerçevesinde revize edilebilir.

## İhracatın Gerçeklestirilmesi

**Madde 13**- İhracatın gerçekleştirilmesi, dahilde işleme izin belgesinde/dahilde işleme izninde ihracı taahhüt edilen işlem görmüş ürünün, bu Karar ile ihracat rejimi ve gümrük mevzuatı hükümleri çerçevesinde Türkiye Gümrük Bölgesi dışına veya serbest bölgelere ihraç edilmesidir.

Ancak, birinci fikra hükmüne istinaden şartlı muafiyet sistemi çerçevesinde belge/izin süresi içerisinde serbest bölgelere yapılan ihracatın, belge/izin süresi bitiminden itibaren 3 (üç) ay içerisinde serbest bölgelerden başka bir ülkeye satışının veya bir başka belge/izin kapsamında Türkiye Gümrük Bölgesine ithalatının yapıldığının tevsiki kaydıyla, belge/izin ihracat taahhüdü kapatılır.

Ayrıca, birinci fıkra hükmüne istinaden geri ödeme sistemi çerçevesinde belge/izin süresi içerisinde serbest bölgelere yapılan ihracatın, belge/izin süresi bitiminden itibaren 3 (üç) ay içerisinde serbest bölgelerden başka bir ülkeye satışının yapıldığının tevsiki kaydıyla, belge/izin ihracat taahhüdü kapatılır.

İhraç bedellerinin yurda getirilmesine ilişkin esaslar kambiyo mevzuatı hükümlerine tabidir. İhraç bedelleri, döviz olarak veya mal olarak getirilebilir. Ancak, ihraç bedelinin mal olarak getirilmesi halinde, bu mallar dış ticaret mevzuatı hükümlerine tabidir.

## Gümrük İdaresince Yapılacak İşlemler

**Madde 14-** Gümrük idaresince, dahilde işleme izin belgesi/dahilde işleme izni kapsamındaki işlemler; bu Karar, bu Karara istinaden yayımlanacak tebliğler, genelgeler, talimatlar ve belgenin özel şartlar bölümünde belirtilen hususlar ile ihracat rejimi ve gümrük mevzuatı hükümleri çerçevesinde gerçekleştirilir.

# Gözetim ve Korunma Önlemlerine Tabi Eşya

**Madde 15-** Dahilde işleme izin belgesi/dahilde işleme izni kapsamında ithali gözetim ve korunma önlemlerine tabi eşyanın serbest dolaşıma girebilmesi için, ithal tarihi itibarıyla yürürlükte bulunan gözetim ve korunma önlemlerinin uygulanması zorunludur.

Aksi takdirde, bu eşyadan elde edilen işlem görmüş ürünün, üçüncü ülkelere ihracı ya da gümrük idaresi gözetiminde imhası gerekir.

Ancak, dahilde işleme izin belgesi/dahilde işleme izni kapsamında A.TR dolaşım belgesi eşliğinde Avrupa Topluluğuna üye ülkelere ihraç edilen işlem görmüş ürünün elde edilmesinde kullanılan eşyanın bu ülkelerde gözetim ve korunma önlemlerine tabi olmaması halinde, bu eşya ile ilgili olarak gözetim ve korunma önlemleri uygulanmaz.

Telafi Edici Verginin Ödenmesi

**Madde 16-** Şartlı muafiyet sistemi kapsamındaki sanayi ürünlerinin A.TR dolaşım belgesi eşliğinde Avrupa Topluluğuna üye ülkelere ihracatında; işlem görmüş ürünün elde edilmesinde kullanılan üçüncü ülke menşeli hammadde, yardımcı madde, yarı mamul, mamul ile değişmemiş eşyaya ilişkin vergi, kaynak ülkelerle varolan anlaşmalardaki lehte hükümler saklı kalmak kaydıyla ödenir. Ancak, Türkiye ile Avrupa Kömür ve Çelik Topluluğu arasında imzalanan Avrupa Kömür ve Çelik Topluluğu ürünleri ticaretine ilişkin anlaşma kapsamı eşya hariç olmak üzere, bu verginin aynı ithal eşyası için Toplulukta uygulanan vergiden yüksek olması halinde, Toplulukta uygulanan vergi ödenir.

Şartlı muafiyet sistemi kapsamındaki işlenmiş tarım ürünlerinin A.TR dolaşım belgesi eşliğinde Avrupa Topluluğuna üye ülkelere ihracında, bu ürünlerin elde edilmesinde üçüncü ülke menşeli sanayi ürünü kullanılmışsa buna ilişkin vergi, işlenmiş tarım ürünü kullanılmış ise bu üründeki sanayi payına ilişkin vergi ödenir.

Anlaşma ile belirlenen menşe kuralının sağlanması ve bir menşe ispat belgesinin düzenlenmesi kaydıyla, şartlı muafiyet sistemi kapsamında ülkemizde doğmuş ve büyütülmüş canlı hayvanlar ile avlanma ve balıkçılık faaliyetlerinden elde edilen ürünler ve bunlardan elde edilen ürünler hariç olmak üzere, tarım ürünlerinin Avrupa Topluluğuna üye ülkelere ihracatında; bu ürünlerin elde edilmesinde kullanılan üçüncü ülke menşeli hammadde, yardımcı madde, yarı mamul, mamul ile değişmemiş eşyaya ilişkin vergi tahsil edilir. Ancak, bu verginin aynı ithal eşyası için Toplulukta uygulanan vergiden yüksek olması halinde, Toplulukta uygulanan vergi ödenir.

Anlaşma ile belirlenen menşe kuralının sağlanması ve bir menşe ispat belgesinin düzenlenmesi kaydıyla, şartlı muafiyet sistemi kapsamında, ülkemizde doğmuş ve büyütülmüş canlı hayvanlar ile avlanma ve balıkçılık faaliyetlerinden elde edilen ürünler ve bunlardan elde edilen ürünler hariç olmak üzere, Serbest Ticaret Anlaşması imzalanmış bir ülkeye yapılan ihracatta; işlem görmüş ürünün elde edilmesinde kullanılan ve bu ülke menşeli olmayan hammadde, yardımcı madde, yarı mamul, mamul ile değişmemiş eşyaya ilişkin vergi, ilgili anlaşmanın lehte hükümleri saklı kalmak kaydıyla ödenir. Ancak, Pan-Avrupa Menşe Kümülasyonuna taraf ülkelerden menşe ispat belgeleri veya tedarikçi beyanı eşliğinde ithal edilen eşya kullanılarak elde edilen Kümülasyona dahil işlem görmüş ürünün, menşe ispat belgeleri veya tedarikçi beyanı eşliğinde tekrar Kümülasyona taraf ülkelerden birine ihraç edilmesi durumunda, ithalat rejiminde belirtilen oranda verginin tahsili aranmaksızın ilgili gümrük idaresince ihracata izin verilir.

Şartlı muafiyet sistemi kapsamında serbest bölgelere yapılan ihracatın, belge/izin süresi bitiminden itibaren 3 (üç) ay içerisinde serbest bölgelerden A.TR dolaşım belgesi eşliğinde Avrupa Topluluğuna üye ülkelere veya menşe ispat belgeleri eşliğinde, Avrupa Topluluğu'na üye ülkelere, Pan-Avrupa Menşe Kümülasyonuna taraf ülkelere veya Serbest Ticaret Anlaşması imzalanmış bir ülkeye satışı halinde, birinci, ikinci, üçüncü ve dördüncü fıkralardaki hükümler çerçevesinde telafi edici verginin tahsili aranır.

Bu madde hükmü çerçevesinde ödenmesi gereken vergi, serbest bölgelerden yapılan satışlar dahil ihracata ilişkin gümrük beyannamesinin tescil tarihindeki Türkiye Cumhuriyet Merkez Bankası döviz satış kuru ve bu tarihte ithalat rejiminde belirtilen gümrük vergisi ve varsa toplu konut fonu üzerinden hesaplanarak ihracat esnasında ödenir. Ancak, belge kapsamında önceden ihracat işleminden sonra ithalat yapılması durumunda, bu vergi serbest bölgelerden yapılan satışlar dahil önceden ihracata ilişkin gümrük beyannamesinin tescil tarihindeki Türkiye Cumhuriyet Merkez Bankası döviz satış kuru ve bu tarihte ithalat rejiminde belirtilen gümrük vergisi ve varsa toplu konut fonu üzerinden hesaplanarak, önceden ihracata tekabül eden ithalatın yapılması esnasında ödenir. Tahsil edilen telafi edici vergi bütçeye irat kaydedilir.

İşlem görmüş ürünün elde edilmesinde kullanılan vergiye konu eşyanın tespitinde firma beyanı esas alınır. Aksine bir durumun tespiti halinde, ödenmeyen ya da eksik ödenen telafi edici vergi, altıncı fıkrada belirtilen ödemenin yapılması gereken tarih itibarıyla 6183 sayılı Amme Alacaklarının Tahsil Usulü Hakkında Kanun hükümlerine göre tahsil edilir.

Elde edilmesinde üçüncü ülke menşeli eşya kullanılan ve Avrupa Topluluğuna üye ülkelere ihraç edilen her türlü harp araç, gereç, teçhizat, makine, cihaz ve sistemleri ile bunların yapım, bakım ve onarımlarında kullanılacak yedek parçalar için telafi edici vergi aranmaz.

## **Verginin Geri Verilmesi**

**Madde 17-** Dahilde işleme izin belgesi/dahilde işleme izni kapsamında ödenmemesi gerektiği halde ödenmiş olduğu belirlenen vergi, ilgili firmanın talebi üzerine 4458 sayılı Gümrük Kanunu ve 3065 sayılı Katma Değer Vergisi Kanunu hükümleri çerçevesinde nakden geri verilir.

### Kısmi Teminat İadesi

**Madde 18-** Şartlı muafiyet sistemi kapsamında ithal edilen eşyadan elde edilen işlem görmüş ürünün ihraç edilmesi halinde, ilgili firmanın belge/izin süresi içerisindeki talebi üzerine, ithalat esnasında alınan teminatlar gerçekleşen ihracata tekabül eden oranda iade edilir. Ancak, iade edilen teminat tutarı, belge/izin kapsamında alınması gereken toplam verginin %90'ını gecemez.

## İhracat Taahhüdünün Kapatılması

**Madde 19-** Dahilde işleme izin belgesi/dahilde işleme izni sahibi firmaların, belge/izin ihracat taahhüdünü kapatmak için, bu Karara istinaden yayımlanacak tebliğ hükümleri çerçevesinde müracaat etmeleri gerekir. Aksi takdirde, bu belge/izin müeyyide uygulanarak resen kapatılır.

Dahilde işleme izin belgesi/dahilde işleme izni ihracat taahhüdü, belgede/izinde belirtilen şartlar da dikkate alınmak suretiyle, dahilde işleme rejimi hükümleri çerçevesinde eşdeğer eşya ve/veya ithal eşyasından elde edilen işlem görmüş ürün ile değişmemiş eşyanın ihraç edildiğinin tespiti kaydıyla kapatılır.

Dahilde işleme izin belgesi/dahilde işleme izni ihracat taahhüdü, belge/izin sahibi firma ve/veya aracı ihracatçı firma tarafından gerçekleştirilen ihracat ile kapatılır. Ancak, Müsteşarlıkça (İhracat Genel Müdürlüğü) aracı ihracatçı kullanımına kısıtlama getirilebilir.

Şartlı muafiyet sistemi kapsamında ithal edilen eşya, belge/izin süresi içerisinde, ticaret politikası önlemlerinin uygulanması, eşyanın gümrük idaresince yerinde tespiti, eşyanın ithali için öngörülen dış ticarette teknik düzenlemeler ve standardizasyon mevzuatı dahil diğer işlemlerin tamamlanması ve kanunen ödenmesi gereken vergilerin tahsili kaydıyla 4458 sayılı Gümrük Kanununun 114 üncü maddesinin birinci fikrası ile 207 nci maddesi hükmüne göre serbest dolaşıma girebilir. Bu durumda serbest dolaşıma giren eşyaya tekabül eden ihracatın gerçekleşmesi aranmaz.

Dahilde işleme izin belgesi/dahilde işleme izni kapsamında ithal edilen eşyanın veya işlem görmüş ürünün, gümrük mevzuatı çerçevesinde gümrük idaresi gözetiminde imhası, gümrüğe terk edilmesi veya mahrecine iadesi hallerinde, bu eşyaya tekabül eden ihracatın gerçekleştirilmesi aranmaz.

Dahilde işleme izin belgesi/dahilde işleme izni kapsamında ithal edilen eşyadan elde edilen ikincil işlem görmüş ürünün, belge/izin ihracat taahhüdünün kapatılmasından önce gümrük mevzuatı çerçevesinde gümrük idaresi gözetiminde imhası, gümrüğe terk edilmesi, çıkış hükmünde gümrüğe teslimi veya serbest dolaşıma giriş rejimi hükümlerine göre ithali hallerinde, bu ürünün ihracatının gerçekleştirilmesi aranmaz. İkincil işlem görmüş ürünün serbest dolaşıma giriş rejimine göre ithaline ilişkin usul ve esaslar, bu Karara istinaden yayımlanacak tebliğle belirlenir.

Dahilde işleme izin belgesi kapsamında ihracı taahhüt edilen işlem görmüş ürünün belge sahibi firmalara yurt içinde teslimi ile belge/izin kapsamında ihraç edilen eşyaların alıcısı tarafından kabul edilmemesi halinde yapılacak işlemlere ilişkin usul ve esaslar, bu Karara istinaden yayımlanacak tebliğle belirlenir.

İhracat taahhüdünün kapatılmasını müteakip, dahilde işleme izin belgesi/dahilde işleme izni kapsamında alınan teminat veya vergi (4760 sayılı Özel Tüketim Vergisi Kanunu hükümleri saklı kalmak kaydıyla), bu Karara istinaden yayımlanacak tebliğle belirlenen usul ve esaslar çerçevesinde ilgili firmaya geri verilir.

# İhracatın Gerçekleştirilmemesi

**Madde 20-** Bu Kararın 15 inci maddesi hükümleri saklı kalmak kaydıyla, şartlı muafiyet sistemi kapsamında ithal edilen ancak belge/izin süresi içerisinde işlem görmüş ürün olarak belge/izin şartlarına uygun şekilde Türkiye Gümrük Bölgesi dışına veya serbest bölgelere (belge/izin süresi bitiminden itibaren 3 (üç) ay içerisinde serbest bölgelerden başka bir ülkeye satışının yapılmaması halinde) ihracatı gerçekleştirilemeyen ithal eşyasına ilişkin alınmayan vergi, 22 nci madde hükümlerine göre tahsil edilir. Ancak, bu kapsamda serbest bölgelere yapılan ihracatın belge/izin süresi bitiminden itibaren 3 (üç) ay içerisinde bir başka belge/izin kapsamında Türkiye Gümrük Bölgesine ithal edilmesi halinde, 22 nci madde hükümleri uygulanmaz.

Geri ödeme sistemi kapsamında ithal edilen ancak belge/izin süresi içerisinde işlem görmüş ürün olarak belge/izin şartlarına uygun şekilde Türkiye Gümrük Bölgesi dışına veya serbest bölgelere (belge/izin süresi bitiminden itibaren 3 (üç) ay içerisinde serbest bölgelerden başka bir ülkeye satışının yapılmaması durumunda) ihracatın yapılmaması halinde, bu ithal eşyasına ilişkin alınan vergi iade edilmez.

Bu Kararın 19 uncu maddesinin altıncı fıkrası hükmü saklı kalmak kaydıyla, ikincil işlem görmüş ürünün ihraç edilmemesi halinde, ithal eşyasına ilişkin beyannamenin tescil tarihindeki kur ve vergi oranı veya asıl işlem görmüş ürünün ihraç edilen kısmı oranında ikincil işlem görmüş ürünün serbest dolaşıma girişine ilişkin beyannamenin tescil tarihindeki kur ve vergi oranı esas alınarak hesaplanan verginin, ilgili gümrük idaresine yatırıldığının tevsiki aranır. Aksi takdirde, 22 nci madde hükümlerine göre işlem yapılır.

Geri ödeme sistemi çerçevesinde düzenlenen dahilde işleme izin belgesi/dahilde işleme izni kapsamında A.TR dolaşım belgesi eşliğinde Avrupa Topluluğu'na üye ülkelere veya menşe ispat belgeleri eşliğinde, Avrupa Topluluğuna üye ülkelere, Pan-Avrupa Menşe Kümülasyonuna taraf ülkelere veya Serbest Ticaret Anlaşması imzalanmış bir ülkeye işlem görmüş ürün olarak ihraç edilmek üzere ithal edilen ancak süresi içerisinde ihracı gerçekleştirilmeyen eşyaya ilişkin daha önce alınmayan vergi, 22 nci madde hükümlerine göre tahsil edilir.

## Belgenin/İznin İptali

**Madde 21-** Firmanın talep etmesi halinde, kullanılmayan dahilde işleme izin belgesi iptal edilir.

Bu Karar ve bu Karara istinaden yayımlanacak tebliğ ve genelge hükümlerine uyulmadığının, dahilde işleme izin belgesinin/dahilde işleme izninin düzenlenmesi veya revizesi için ibraz edilen bilgi ve belgeler ile belge/izin kapsamında yapılan işlemlerin gerçek dışı olduğunun veya gerçeği yansıtmadığının yahut belgenin/iznin sahtesinin düzenlendiğinin veya üzerinde tahrifat yapıldığının tespiti halinde; ilgili belge/izin iptal edilir ve ilgililer hakkında kanuni işlem yapılır. Ayrıca, bu belge/izin sahibi firmaya ait dahilde işleme izin belgelerine/dahilde işleme izinlerine (bu firmaların bir başka firmanın belgesinde yan sanayici olması da dahil) 1 (bir) yıl süreyle indirimli teminat uygulanmaz.

İptal edilen belge/izin ile ilgili olarak, 22 nci madde hükümlerine göre işlem yapılır.

## **Dahilde İşleme Tedbirlerine Uyulmaması**

**Madde 22-** Dahilde işleme tedbirlerini, dahilde işleme rejimi ve belgede/izinde belirtilen esas ve şartlara uygun olarak yerine getirmeyenlerden;

- a) Şartlı muafiyet sistemi kapsamında ithal edilen ve Türkiye Gümrük Bölgesi dışına veya belge/izin süresi bitiminden itibaren 3 (üç) ay içerisinde başka bir ülkeye satışının yapılması kaydıyla belge/izin süresi içerisinde serbest bölgelere ihracı gerçekleştirilmeyen eşya ile belge/izin süresi içerisinde serbest bölgelere ihraç edilen eşyanın belge/izin süresi bitiminden itibaren 3 (üç) ay içerisinde bir başka belge/izin kapsamında ithalatı şartıyla Türkiye Gümrük Bölgesine getirilmeyen eşyanın ithali esnasında alınmayan vergi,
- b) Belge/izin kapsamında izin verilen miktarın üzerinde ithalat yapılması halinde, bu kısma tekabül eden ithalattan doğan vergi,
- c) Belge kapsamında ithal edilen eşyanın tamamı ihraç edilen işlem görmüş ürünün elde edilmesinde kullanılmış olsa dahi döviz kullanım oranının %80'i (İkincil işlem görmüş tarım ürünü taahhüdü içeren belgeler için %100'ü) geçmesi halinde, bu oranı aşan kısma tekabül eden ithalatla ilgili alınmayan vergi,
- d) Belge/izin kapsamında ithal edilen işletme malzemesinin CIF ithal tutarının, gerçekleşen FOB ihraç tutarının %2 (doğal taşlar ile kıymetli maden ve taş ihraç taahhüdü içeren belgelerde %10)'sinden fazla olması halinde, bu oranı aşan kısma tekabül eden ithalatla ilgili alınmayan vergi,
- e) Belge/izin kapsamında ithal edilen değişmemiş eşyanın CIF ithal tutarının, gerçekleşen FOB ihraç tutarının %1'inden fazla olması halinde, bu oranı aşan kısma tekabül eden ithalatla ilgili alınmayan vergi,
- f) Geri ödeme sistemi çerçevesinde düzenlenen belge/izin kapsamında A.TR dolaşım belgesi eşliğinde Avrupa Topluluğuna üye ülkelere veya menşe ispat belgeleri eşliğinde, Avrupa Topluluğuna üye ülkelere, Pan-Avrupa Menşe Kümülasyonuna taraf ülkelere veya Serbest Ticaret Anlaşması

imzalanmış bir ülkeye işlem görmüş ürün olarak ihraç edilmek üzere ithal edilen ancak süresi içerisinde ihracı gerçekleştirilmeyen eşyaya ilişkin alınmayan vergi,

- g) Dahilde işleme izin belgesinin/dahilde işleme izninin iptal edilmesi halinde, belge/izin kapsamında varsa alınmayan vergi,
- h) Dahilde işleme izin belgesinin/dahilde işleme izninin resen kapatılması halinde, belge/izin kapsamında varsa alınmayan vergi,

ithal tarihi itibarıyla 4458 sayılı Gümrük Kanunu ile 6183 sayılı Amme Alacaklarının Tahsil Usulü Hakkında Kanun hükümlerine göre tahsil edilir. Ayrıca, ithal edilen ve süresi içerisinde ihracı gerçekleştirilmeyen eşya için 4458 sayılı Kanunun 238 inci maddesi hükmü çerçevesinde gümrük vergilerinin 2 (iki) katı para cezası alınır.

Birinci fikra hükmü çerçevesinde vergisi ve cezaları ödenen eşyanın serbest dolaşıma giriş rejimine tabi tutulmasının talep edilmesi halinde, ticaret politikası önlemlerinin uygulanması ve eşyanın ithali için öngörülen dış ticarette teknik düzenlemeler ve standardizasyon mevzuatı dahil diğer işlemlerin tamamlanması şartı aranır. Aksi takdirde, bu eşyanın serbest dolaşıma giriş rejimi dışındaki gümrükçe onaylanmış bir işlem veya kullanıma tabi tutulması gerekir.

## Dahilde İşleme Rejiminde Sağlanan Hakların Kötüye Kullanımı

- **Madde 23-** Müsteşarlık veya diğer kamu kurum ve kuruluşlarının denetim birimleri ile Gümrük Müsteşarlığınca yapılan inceleme ve soruşturma sonucunda, gümrük beyannamesi ve eki belgelerin sahte olduğunun veya üzerinde tahrifat yapıldığının ya da gerçek dışı olduğunun veya gerçeği yansıtmadığının tespiti halinde;
- a) Bu gümrük beyannamesi dahilde işleme izin belgesi/dahilde işleme izni ihracat taahhüdünün kapatılmasında kullanılamaz.
- b) İhracat taahhüdünün kapatılmasında kullanılmış olması veya kullanılmık üzere ibraz edilmesi halinde, bu beyanname kapsamı ihracata tekabül eden ithalata ilişkin vergi, bu Kararın 22 nci maddesi hükümleri çerçevesinde tahsil edilir ve ilgililer hakkında kanuni işlem yapılır.
- c) Bu gümrük beyannamesinde kayıtlı belge/izin sahibi firma ve/veya aracı ihracatçıya ait dahilde işleme izin belgelerine/dahilde işleme izinlerine (bu firmaların bir başka firmanın belgesinde yan sanayici olması da dahil) 1 (bir) yıl süreyle indirimli teminat uygulanmaz. Bu durumdaki aracı ihracatçı, beyanname konusu işlem görmüş ürünün elde edilmesinde kullanılan eşyanın ithalatı esnasında alınmayan vergiden, belge/izin sahibi firma ile birlikte müştereken ve müteselsilen sorumludur.

Ancak, gümrük beyannamesi ve eki belgeler üzerindeki tahrifatın belge/izin sahibi firma tarafından yapılmadığının kesinleşmiş mahkeme kararı ile tespiti kaydıyla, bu işlemin dahilde işleme rejimi çerçevesinde firmaya herhangi bir menfaat sağlamadığı ve yapılan ihracatın gerçek olduğunun tespiti halinde, birinci fikra hükmü uygulanmaz.

## **Denetim**

**Madde 24-** Tüm kamu kurum ve kuruluşları ile bankalar, dahilde işleme tedbirlerini, dahilde işleme rejimi ve belgede/izinde belirtilen esas ve şartlara uygun olarak tatbik ederler. Müsteşarlık, bu Kararda belirtilen tedbirlerin uygulanmasına ilişkin her türlü denetimi ve düzenlemeyi yapabilir, ilgili firma, kamu kurum ve kuruluşları ile bankalardan bilgi ve belge isteyebilir ve gerekli önlemleri alabilir.

## DÖRDÜNCÜ BÖLÜM

# ÇEŞİTLİ HÜKÜMLER

## Uygulama

**Madde 25**- Bu Kararın yayımlandığı tarihten önceki Kararlara istinaden düzenlenen dahilde işleme izin belgeleri/dahilde işleme izinleri kendi mevzuatı hükümlerine tabidir. Henüz ihracat taahhüdü kapatılmamış olan dahilde işleme izin belgelerine/dahilde işleme izinlerine, bu Kararın lehe olan hükümleri uygulanır.

### Yetki

**Madde 26** — Müsteşarlık bu Karar hükümlerine istinaden, dahilde işleme rejimi ile ilgili usul ve esaslara ilişkin tebliğ ve genelgeler çıkarmaya, izin ve talimat vermeye, özel ve zorunlu durumları inceleyip sonuçlandırmaya ve uygulamada ortaya çıkacak ihtilafları idari yoldan çözümlemeye yetkilidir.

Bu Karar hükümlerine istinaden yapılacak tüm işlemler, bu Karara istinaden yayımlanacak tebliğ hükümleri çerçevesinde, bilgisayar veri işleme tekniği yoluyla gerçekleştirilebilir.

Ayrıca, Müsteşarlık (İhracat Genel Müdürlüğü) dahilde işleme izin belgesinin taahhüt kapatma, iptal veya resen kapatma işlemlerini (müeyyidenin tahsil edilmediğinin tespiti kaydıyla) geri almaya yetkilidir. Dahilde işleme izninin taahhüt kapatma, iptal veya resen kapatma işlemlerini (müeyyidenin tahsil edilmediğinin tespiti kaydıyla) geri almaya ise, Gümrük Müsteşarlığı yetkilidir.

Müsteşarlık, gümrük mevzuatı hükümleri çerçevesinde onaylanmış kişi statü belgesine sahip kişiler için, dahilde işleme rejimi hükümlerinin kolaylaştırılması amacıyla tebliğ, genelge ve talimat ile düzenleme yapmaya yetkilidir.

Dahilde işleme izin belgelerinin revize edilmesi ve taahhüt hesabının kapatılması ile ilgili görev ve yetkiler Müsteşarlıkça kullanılabileceği gibi, bu Karara istinaden yayımlanacak tebliğ ile, diğer kamu kurumları ve/veya ihracatçı birlikleri genel sekreterliklerine kısmen veya tamamen devredilebilir.

**Geçici Madde 1-** Bu Kararın yayımı tarihinden önce düzenlenen dahilde işleme izin belgeleri (müeyyide uygulanan ancak vergileri tahsil edilmeyen belgeler dahil) kapsamında yurt içinden alınan ve süresi içerisinde ihracı gerçekleştirilmeyen eşyaya ilişkin verginin, 6183 sayılı Amme Alacaklarının Tahsil Usulü Hakkında Kanun hükümlerine göre tahsili kaydıyla, belge ihracat taahhütleri kapatılır.

**Geçici Madde 2-** Bu Kararın yayımı tarihinden önce düzenlenen ve süresi sona eren dahilde işleme izin belgesi/ihracatı teşvik belgesi ihracat taahhütleri, yan sanayici unvanı kayıtlı gümrük beyannameleriyle de kapatılabilir.

Ayrıca, bu Kararın yayımı tarihinden önce düzenlenen ve süresi sona eren dahilde işleme izin belgesi/ihracatı teşvik belgesi kapsamında ihracı taahhüt edilen işlem görmüş ürünün, belge sahibi firma ve/veya yan sanayici tarafından bir başka firmaya teslim edildiğinin yeminli mali müşavir raporuyla tevsik edilmesi ve bu firma ve/veya aracı ihracatçı tarafından ihracatın gerçekleştirildiğinin tespiti kaydıyla, bu gümrük beyannamesi ihracat taahhüdüne sayılabilir.

**Geçici Madde 3-** Dahilde işleme rejimi kapsamında ithal edilen gözetim ve korunma önlemine tabi eşyadan elde edilen işlem görmüş ürünü A.TR dolaşım belgesi eşliğinde Avrupa Topluluğuna üye ülkelere ihraç eden ancak, bu eşya ile ilgili olarak ithal lisansları ve/veya gözetim belgeleri (yan sanayici veya aracı ihracatçı adına olanlar dahil) bulunmayan firmalara ait bu Kararın yayımı tarihinden önce düzenlenen ve süresi sona eren dahilde işleme izin belgelerinin/dahilde işleme izinlerinin ihracat

taahhütleri, ilgili mevzuat hükümleri çerçevesinde diğer şartların yerine getirilmesi kaydıyla, bu eşya ile ilgili olarak ithal lisansları ve/veya gözetim belgeleri aranmaksızın kapatılır.

**Geçici Madde 4-** Bu Kararın yayımından önce düzenlenen, en geç 31/12/2004 tarihinde süresi sona eren ve aynı firmaya ait dahilde işleme izin belgeleri ihracat taahhütleri, belge sürelerinin birbiri icerisine girmesi kaydıyla birlikte kapatılabilir.

**Geçici Madde 5-** 30/1/2002 tarihli ve 4743 sayılı Kanun çerçevesindeki finansal yeniden yapılandırma sözleşmelerine ve Tasarruf Mevduatı Sigorta Fonu ile yapılan sözleşmelere göre borçları yeniden yapılandırılan ve yeni bir itfa planına bağlanan borçlular adına, bu Kararın yayımından önce düzenlenen dahilde işleme izin belgelerine/dahilde işleme izinlerine (müeyyide uygulanan ancak vergileri tahsil edilmeyen belgeler/izinler dahil), bu Kararın yayımı tarihinden itibaren 18 ay süre verilir. Ayrıca, bu Karara istinaden yayımlanacak tebliğ hükümleri çerçevesinde ilgili belge/izin kapsamındaki ihracat performansı dikkate alınarak, belgeye/izne ilave süre verilebilir.

Bu kapsamda ek süre verilen dahilde işleme izin belgelerinin/dahilde işleme izinlerinin ihracat taahhütleri, belge/izin sahibi firma ya da grup firmaları veya Tasarruf Mevduatı Sigorta Fonu ile yapılan sözleşmede belirtilen borçlular ve müşterek borçlu müteselsil kefiller tarafından yapılan ihracat ile kapatılabilir.

**Geçici Madde 6-** Henüz ihracat taahhüdü kapatılmamış olan dahilde işleme izin belgelerine/dahilde işleme izinlerine, belgenin/iznin kendi mevzuatında ve bu Kararda belirtilen müracaat süreleri dikkate alınmaksızın bu Kararın lehe hükümleri uygulanır.

**Geçici Madde 7-** 13/5/2003 tarihli ve 25107 sayılı Resmi Gazete'de yayımlanan 25/4/2003 tarihli ve 2003/5548 sayılı Kararnamenin eki Karar çerçevesinde ihracat taahhüdünün gerçekleştirilmesi için dahilde işleme izin belgesine verilen süreler, belge süresi olarak kabul edilir.

**Geçici Madde 8-** Bu Kararın yayımı tarihinden önce düzenlenen dahilde işleme izin belgeleri kapsamında yurt içinden temin edilme imkanı bulunmayan hammadde, yarı mamul ve mamul madde için bu Kararın 9 uncu maddesinde belirtilen döviz kullanım oranının %10 (%90 döviz kullanım oranı) aşılması durumunda, ithal edilen eşyanın işlem görmüş ürün olarak ihraç edildiğinin tespiti ve Müsteşarlığın uygun görmesi şartıyla belge ihracat taahhüdü kapatılabilir.

**Geçici Madde 9 -** Bu Kararın yayımı tarihinden önce özel fatura düzenleme yetkisi bulunmayan gümrük idarelerince tescil edilen ancak bu idarelerden teyidi alınamadığı için ihracat taahhüdüne saydırılamayan özel fatura ile ilgili dahilde işleme izin belgeleri (müeyyide uygulanan ancak vergileri tahsil edilmeyen belgeler dahil) ihracat taahhütleri, bu Kararın yayımı tarihinden itibaren 6 (altı) ay içerisinde yapılan ihracat ile kapatılır. Belge süresi sonu ile bu Kararın yayımı tarihi arasında gerçekleştirilen ihracat da belge ihracat taahhüdüne sayılır.

**Geçici Madde 10 -** Bu Kararın yayımı tarihinden önce düzenlenen ve süresi sona eren dahilde işleme izin belgesi kapsamında menşe ispat belgeleri eşliğinde Serbest Ticaret Anlaşması imzalanmış bir ülkeye ihracatı gerçekleştirilen işlem görmüş ürünün, bu ülkelerden tercihli tarife uygulamasından yararlanmaksızın başka bir ülkeye ihraç edildiğinin tevsiki halinde, bu ürünün elde edilmesinde kullanılan hammadde, yardımcı madde, yarı mamul, mamul ile değişmemiş eşyaya ilişkin telafi edici verginin ödenmesi aranmaz.

**Geçici Madde 11 -** Taahhüt hesapları kapatılmayan 1 ve 2 kodlu ihracatı teşvik belgeleri kapsamında ithal edilen eşyanın işlem görmüş ürün olarak belge süresi içerisinde ihraç edildiğinin gümrük idaresince tespit edilmesi ve ilgili ihracatçı birlikleri genel sekreterliğine bildirilmesi kaydıyla, belge ihracat taahhütleri bu ihracata tekabül eden ithal eşyasına müeyyide uygulanmaksızın, ihracatçı birliği genel sekreterliği tarafından resen kapatılır.

Taahhüt hesapları kapatılmayan 3 kodlu ihracatı teşvik belgeleri kapsamında ithal edilen eşyanın işlem görmüş ürün olarak belge süresi içerisinde ihraç edildiğinin gümrük idaresince tespit edilmesi halinde, belge ihracat taahhütleri bu ihracata tekabül eden ithal eşyasına müeyyide uygulanmaksızın gümrük idaresi tarafından resen kapatılır.

## Yürürlükten Kaldırılan Hükümler

**Madde 27-** 23/12/1999 tarihli ve 99/13819 sayılı Kararname eki Karar, ek ve değişiklikleri ile birlikte yürürlükten kaldırılmıştır.

## Yürürlük

Madde 28- Bu Karar yayımı tarihinde yürürlüğe girer.

## Yürütme

Madde 29- Bu Kararı Dış Ticaret Müsteşarlığının bağlı bulunduğu Bakan yürütür.