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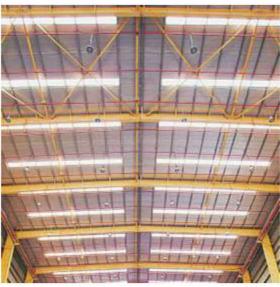
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GALVANISED COILS AND SHEETS





JSW Steel Coated Products Ltd.



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JSW GROUP











An \$11 billion conglomerate, with presence across India, USA, South America & Africa, the JSW Group is a part of the O.P. Jindal Group with strong footprints across core economic sectors, namely, Steel, Energy, Infrastructure, Cement, also in Ventures and Sports.

The Group is paving the way for India's development as a global superpower. JSW Steel is India's leading steel producer and among the world's most illustrious steel company. The Group is also leading in every sector that it operates in.

JSW Energy is one of the earliest private entrants into the power sector positioned strongly as a full-spectrum integrated power company with a presence across the power sector value chain. It is one of the most efficient Power Company in the country with one of the country's largest open cast mining operation by volume and one of the largest private sector Hydro Operator in India. JSW Cement creates the building blocks of India with its environment friendly products. JSW Infrastructure is contributing to the nation's development by providing world class services to clients through state of-the-art ports, terminals, shipyards and other facilities. JSW Sports runs the Sports Excellence Program (SEP) to identify, nurture and develop Indian athletes to ensure that they bring sporting glory to the nation on the global stage. JSW Sports also runs the Bengaluru Football Club & The Bengaluru Yodhas wrestling team.

The JSW Group is committed to creating more smiles at every step of the journey. JSW Foundation, the Group's CSR and sustainability arm, is in constant pursuit of making life better for communities with its various initiatives in the fields of health, education, livelihood and sports, along with art and culture.

JSW Group is proud to be charting a course to excellence that creates opportunities for every Indian and leads to the creation of a sustainable, dynamic and developed nation.



JSW STEEL LTD.

The flagship company of USD 11 billion JSW Group, JSW Steel is one of India's leading integrated steel manufacturers with a capacity of 18 MTPA. It is one of the fastest growing companies in India with a footprint in over 140 countries. With state-of-the-art manufacturing facilities located in Karnataka, Tamil Nadu and Maharashtra, it is recognized for its innovation and quality.

JSW offers a wide gamut of steel products that includes Hot Rolled, Cold Rolled, Bare & Pre-painted Galvanized & Galvalume®, TMT Rebars, Wire Rods and Special Steel.

JSW Steel continues to enhance its capabilities to meet the rapidly changing global market needs. To stay on the leading edge of technical advancement, JSW has entered into technological collaboration with JFE Steel Corp, Japan to manufacture high strength and advanced high strength steel for the automobile sector. JSW Steel has also entered into a joint venture with Marubeni-Itochu Steel Inc. Tokyo, to set up a state-of-the-art steel processing centers. To strengthen its global network, the Company has also acquired a Pipe and Plate making steel mill in Baytown, Texas in USA. Going forward, JSW Steel aims to produce 40 million tons of steel annually.

Vijayanagar Works



JSW STEEL COATED PRODUCTS LTD.

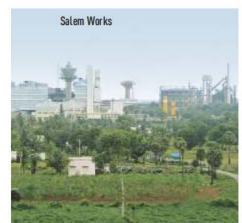
JSW Steel Coated Products Limited is 100% subsidiary company of JSW Steel, having state-of-the-art manufacturing facilities in the state of Maharashtra.

JSW Steel Coated Products Ltd. is India's largest manufacturer and exporter of Coated Steel as well as Colour Coated Steel. The production facilities, Tarapur and Vasind Works, are located in the vicinity of major ports. The company's Kalmeshwar Works is centrally located near Nagpur to serve across regions.

JSW is an ISO 9001: 2008 Certified Organization and the first licensee producer for Galvalume® in India. The Tarapur plant is specialized in manufacturing Ultra-Thin Coated Products. The company is also a manufacturer of appliance grade colour coated products. JSW's Kalmeshwar Works is the first producer of Galvanized and Colour Coated Steel in India. JSW also has established India's first Appliance Grade Line to manufacture Pre Coated and Vinyl Coated Metal.

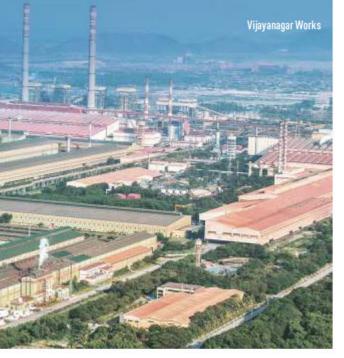












SETTING BENCHMARKS

- First continuous annealing line in India
- Widest Cold Rolling Mill (upto 1870 mm width)
- India's Largest Coated Steel producer
- First Licensee Galvalume® producer in India
- JSW Steel Salem Works is the largest integrated alloy and special steel plant in India
- Widest Hot Strip Mill in India: 25.4 x 2150 mm
- India's Most Modern and Largest Vertical Caster 300/260/220 x 2200 mm
- India's only Multi-Radii Bloom Caster operational at Salem Works
- ZERO EFFLUENT discharge for greener & cleaner environment
- 1.6 million trees planted at Vijayanagar Works, transforming the area into a green oasis
- India's Largest Long Steel Producer by installed capacity



THE MANUFACTURING FACILITIES

TARAPUR WORKS JSW's Tarapur works is largest coated steel plant in a single location specialising in manufacturing of ultra thin coated products. The plant offers coated products catering to several sectors and located about 100 kms from Mumbai. The plant produces pre-painted galvanised / galvalume, galvanised and bare galvalume steel. It has unique service center facility to meet the customised requirements of various segments. The plant has zero discharge facility having multi - effect evaporator system for effluent treatment.

VASIND WORKS Vasind works is

Vasind

located 70 kms from

Mumbai. It is a full fledged complex with cold rolling, galvanising and colour coating facilities. Vasind works has India's first appliance grade colour coating line, the grades of this line are approved by major white good manufacturers. It sources HR steel from Dolvi & Vijayanagar works to manufacture value added steel products.

KALMESHWAR WORKS

JSW Steel Kalmeshwar works is centrally located 30 kins from Nagpur to cater the requirements from all regions. It has galvanising capabilities to produce higher thickness and higher coating. The Strict adherence to standards of excellence in quality has lead to attain many world renowned certification to kalmeshwar works. JSW Kalmeshwar works is first coated steel manufacturing facility in India. It produces galvanised, Galvalume, pre-painted galvanised/galvalume steel.

JSW GALVANISED PRODUCTS

JSW's Galvanised Coils and Sheets are produced through the Mills at Vasind, Tarapur and Kalmeshwar. JSW's Galvanised products are manufactured in Structural, Pipes and Tubes, High Tensile grades, conforming to JIS, EN, ASTMA and IS standards. Dimensional accuracy is guaranteed by an automatic thickness control system using advanced numerical models. The downstream plants source HR steel coils from Dolvi Works.









JSW Vishwas is the premium galvanised sheet manufactured by JSW. Introduced in the year 2002, the brand has become synonym for quality and durability. Earlier known as Jindal Vishwas, it was rebranded as JSW Vishwas in 2010, to align with the corporate brand identity. The umbrella logo of JSW Vishwas symbolizes the trust that the millions have placed on the product. The huge promise of the JSW Vishwas brand is sustained by providing consistent quality product to the customers. Perfect weight and uniform coating throughout the surface area of the sheet are inherent quality of the genuine JSW Vishwas sheets. JSW Vishwas sheets when evaluated on life cycle cost basis, with competing products on factors like durability, ease of installation, maintenance, resale value, prove to be most favourable choice of the masses.

ADVANTAGE JSW



SUPERIOR CORROSION RESISTANCE

Superior corrosion resistance means longer service life for buildings, appliances, or parts made from Galvanised sheet. Atmospheric test results confirm that, depending on the environment, Initial encouraging laboratory test results were confirmed by long term atmospheric exposure tests in various environments ranging from severe marine to severe industrial. Additional exposure data from licensees around the world confirms the product's superior corrosion resistance.



HEAT REFLECTIVITY (COOL ROOF)

The shiny Galvanised surface maintains its brightness for extended periods even after exposure to moderately high temperatures (up to 350° C). Being reflective, this bright surface ensures energy efficiency in buildings and appliances and, as an efficient heat shield for automotive exhaust applications. To the consumer, this means lower energy costs.



ENVIRONMENT-FRIENDLINESS

Galvanised sheet's higher heat reflectivity also makes it environmental friendly since it helps lower atmospheric temperature. As per studies conducted by the EPA, higher atmospheric temperature contributes to greater smog formation - and reducing atmospheric temperatures by a few degrees can help reduce smog.



FORMABILITY

Galvanised sheet can be readily roll formed on conventional roll forming equipment. It is made in a variety of strength levels, depending on the intended application, including Forming Quality (FQ) and Full Hard (FH). When additional formability is required for more difficult jobs, FQ or even Deep Drawing Quality (DDQ) can also be used.



PAINTABILITY

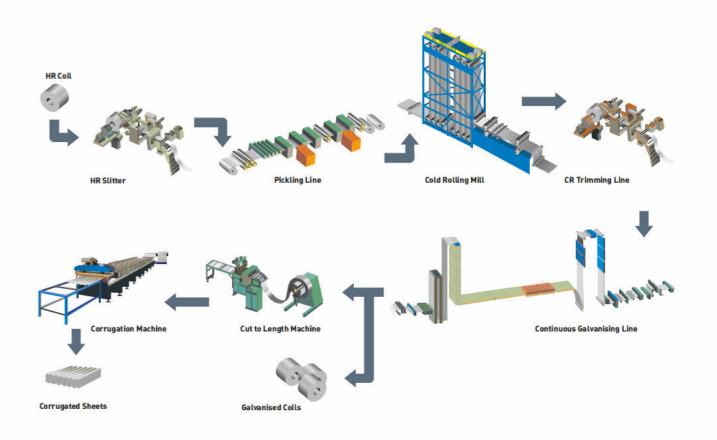
Galvanised sheet is an excellent substrate for paint-ability. It can be pre-painted on continuous coil painting lines, as individual formed parts in the factory or field painted at the site. The surface is mostly aluminium and thus readily paintable, offering consistently better paint adhesion.

Corrosion resistance of G-90 galvanized, Galvalume® Coated in Scandinavian environment.



THE MANUFACTURING PROCESS

VASIND / TARAPUR / KALMESHWAR



PRODUCT SPECIFICATIONS

SPECIFICATIONS AND THICKNESS

| Plant | Grade | Cold Treatment | CR_Thick | CR_Thick | Width Min. (MM) | Width Max. (MM) |
|-----------------------------------|------------------|----------------|--|----------|--------------------|--------------------|
| Vesind | CS (Soft) | STL/NSTL | | | | |
| vasinu | CS (50IL) | 579 | | 3. | 50 | 1335 |
| | CHILL | STL/NSTL/SPM | | | 50 | 1335 |
| | CH(Hard) | NSTL | | Aug Tu | 50 | 1335 |
| | DX (YS 310 Max.) | STL/NSTL/SPM | 2000 | | 50 | 1335 |
| | DD (YS 260 Max.) | STL/NSTL/SPM | 0.4 | 1.55 | 50 | 1335 |
| Vasind D D S Tarapur Kalmeshwar | ST (YS 340 Min.) | STL/NSTL/SPM | 0.4 | 1.55 | 50 | 1335 |
| Tarapur | CS (Soft) | STL/NSTL | 0.223 | 0.3 | 680 | 1250 |
| | | STL/NSTL/SPM | 0.25 | 0.3 | 680 | 1250 |
| | | STL/NSTL/SPM | 0.3 | 2.5 | 50 | 1335 |
| | CH(Hard) | NSTL | 0.09 | 0.143 | 750 | 920 |
| | | NSTL | 0.143 | 0.22 | 750 | 1000 |
| Vasind | | NSTL | 0.223 | 0.3 | 695 | 1250 |
| | | NSTL/SPM | 0.3 | 1.2 | 50 | 1335 |
| | DX (YS 310 Max.) | STL/ SPM | 0.6 | 1.2 | 50 | 1335 |
| Tarapur | ST (YS 320 Min.) | STL/ SPM | 0.35 | 2.5 | 50 | 1335 |
| Kalmeshwar | CS (Soft) | STL/ SPM | 0.229 | 0.279 | 399 | 1005 |
| | | | 0.279 | 0.479 | 399 | 1250 |
| | | | Min. (MM) Max. (MM) 0.225 1.55 1 0.235 1.55 0.25 0.75 1 0.4 1.55 1 0.4 1.55 1 0.4 1.55 0.223 0.3 0.3 0.09 0.143 0.22 0.223 0.3 0.3 0.143 0.22 0.223 0.3 1.2 0.6 0.223 0.3 1.2 0.6 1.2 0.35 0.25 0.279 0.479 0.479 0.479 0.479 0.119 0.16 0.229 0.229 0.239 0.279 0.279 0.329 0.379 0.379 0.389 0.279 0.279 0.479 0.479 0.279 0.479 0.479 0.479 0.479 0.479 0.479 0.479 0.479 | 3.15 | 79 | 1270 |
| | CH (Hard) | NSTL | 0.119 | 0.16 | 839 | 915 |
| | | | 0.16 | 0.229 | 839 | 1005 |
| | | | 0.229 | 0.239 | 399 | 1220 |
| | | | 0.239 | 0.279 | 399 | 1235 |
| | | NSTL/SPM | 0.279 | 0.329 | 399 | 1235 |
| | | | 0.329 | 0.379 | 79 | 1235 |
| | | | 0.379 | 0.98 | 79 | 1335 |
| | DX (YS 310 Max.) | STL/ SPM | 8773478 | 0.279 | 399 | 1005 |
| | | | | | 399 | 1250 |
| Vasind | | | | 1. | 79 | 1270 |
| | ST (YS 340 Min.) | STL/NSTL/SPM | | | 79 | 1250 |

ZINC COATING CAPABILITY

| Plant | CR_Thick | CR_Thick | Zn Coating | Zn Coating |
|------------|-----------|----------|--|------------|
| | Min. (MM) | Max.(MM) | GSM Min. | GSM Max. |
| Vasind | 0.299 | 0.399 | 70 | 275 |
| | 0.4 | 0.449 | 70 | 275 |
| | 0.45 | 0.599 | 70 | 310 |
| | 0.6 | 1.55 | 90 90 90 90 90 90 90 90 90 90 90 90 90 | 350 |
| Tarapur | 0.09 | 0.145 | 90 | 120 |
| | 0.146 | 0.229 | 90 | 183 |
| | 0.23 | 0.299 | 90 | 220 |
| | 0.3 | 0.399 | 90 | 275 |
| | 0.4 | 0.45 | 90 | 275 |
| | 0.451 | 0.6 | 90 | 310 |
| | 0.601 | 1.1 | 90 | 400 |
| | 1.101 | 2.5 | 90 | 700 |
| Kalmeshwar | 0.119 | 0.16 | 79 | 120 |
| | 0.161 | 0.379 | 79 | 180 |
| | 0.38 | 0.7 | 79 | 275 |
| | 0.701 | 1.45 | 79 | 450 |
| | 1.451 | 3.15 | 79 | 550 |

COIL WINDING

| Plant | CR_Thick | CR_Thick | Zn Coating | ZnCoating | Winding | Туре |
|------------|------------------|-----------|------------|-----------|--------------------|-----------|
| | Min. (MM) | Max. (MM) | GSM Min. | GSM Max. | Soft | Hard |
| Vasind | 0.229 | 1.55 | 70 | 180 | | |
| | 0.25 | 0.3 | 90 | 190 | Straight/Staggered | Staggered |
| | 0.3 | 0.35 | 90 | 215 | Straight | Staggered |
| | 0.35 | 0.45 | 90 | 275 | Straight | Staggered |
| | 0.45 | 0.54 | 90 | 310 | Staggered | Staggered |
| | 0.54 | 0.7 | 90 | 350 | Staggered | Staggered |
| | 0.7 | 1.2 | 90 | 400 | Staggered | Staggered |
| | 1.2 | 2.5 | 90 | 550 | Staggered | Staggered |
| Kalmeshwar | No Straight Wind | | | | | |

PRODUCT SPECIFICATIONS

THICKNESS TOLERANCE

| Plant | CR_Thick Min. (MM) | CR_Thick Max. (MM) | Thickness Delta MM |
|------------|-----------------------|-----------------------|-----------------------|
| Vasind | 0.225 | 0.4 | 0.025 |
| | 0.401 | 0.6 | 0.03 |
| | 0.601 | 1.2 | 0.04 |
| | 1.201 | 1.63 | 0.06 |
| Tarapur | 0.09 | 0.179 | 0.022 |
| | 0.18 | 0.299 | 0.026 |
| | 0.3 | 0.499 | 0.03 |
| | 0.5 | 0.799 | 0.03 |
| | 0.8 | 1.199 | 0.04 |
| | 1.2 | 1.499 | 0.06 |
| | 1.5 | 2.5 | 0.07 |
| Kalmeshwar | 0.119 | 0.179 | 0.014 |
| | 0.18 | 0.299 | 0.016 |
| | 0.3 | 0.499 | 0.02 |
| | 0.5 | 1.499 | 0.03 |
| | 1.5 | 1.999 | 0.04 |
| | 2 | 2.499 | 0.07 |
| | 2.5 | 3.15 | 0.08 |



WIDTH TOLERANCE

| Plant | Width | Width | Width |
|------------|-----------|-----------|----------|
| | Min. (MM) | Max. (MM) | Delta MM |
| Vasind | 40 | 625 | 0.3 |
| | 626 | 805 | 0.3 |
| | 806 | 1335 | 0.5 |
| Tarapur | 50 | 680 | 0.5 |
| | 681 | 1335 | 5 |
| Kalmeshwar | 79 | 805 | 0.5 |
| | 805 | 1335 | 1 |

LENGTH TOLERANCE

| Plant | Width Min. (MM) | Width Max. (MM) | Length Min. (MM) | Length Max (MM) | Length Delta |
|------------|--------------------|--------------------|---------------------|--------------------|-----------------|
| Vasind | 199 | 625 | 600 | 1000 | 1 |
| | 626 | 805 | 1001 | 2500 | Delta |
| | 806 | 1335 | 2501 | 5000 | 3 |
| Tarapur | 500 | 749 | 500 | 4900 | 5 |
| | 750 | 1000 | 500 | 4900 | 5 |
| | 1001 | 1335 | 1500 | 4900 | 5 |
| Kalmeshwar | 199 | 1335 | 399 | 6000 | 1 |



PASSIVATION

| Plant | Passivation | CR_Thick | CR_Thick | |
|------------|-------------|----------|---|--|
| | | Min.(MM) | Max. (MM) | |
| Vasind | CR6/CR3/NIL | >0.225 | ≤1.55 | |
| Tarapur | AFP;CTOC | >0.235 | ≤2.5 | |
| | CR3/NIL | >0.235 | 2000000 | |
| | CR6 | ≥0.09 | 0.225 ≤1.55 0.235 ≤2.5 0.235 ≤2.5 0.09 ≤2.5 0.171 ≤0.950 0.379 ≤3.150 | |
| Kalmeshwar | AFP | >0.171 | ≤0.950 | |
| | CR3/NIL | >0.379 | ≤3.150 | |
| | CR6 | 0.119 | ≤3.150 | |

COIL ID CAPABILITY

| Plant | CR_Thick Min. (MM) | CR_Thick Max.(MM) | Coil ID MM |
|------------|-----------------------|----------------------|---------------|
| Tarapur | 0.09 | 0.34 | 508 |
| Tarapur | 0.35 | 1.00 | 508/610 |
| Tarapur | 1.01 | 2.50 | 508 |
| Vasind | 0.225 | 1.55 | 610 |
| Kalmeshwar | 0.229 | 3.15 | 610 |



GALVANISED - SOFT (COMMERCIAL, FORMING, DRAWING)

| Specification | Grade | | | | | Chem | Chemical Composition (Values are in %) | ition (| Value | sarein | (% | | | | | | Mechani | Mechanical Properties | | |
|---------------|-----------------|-----------------|------|-----|-------|-------|--|---------|--------|-----------|----------|-----------|-------------|-------|--------|------------------------------|--|-----------------------|----------------------|--------------------|
| | | υ | Æ | is. | ۵ | v | Al | 3 | Z | <u>Σ</u> | > OW | ಕ | F | | œ Z | Yield Strengtl (Mpa min.) | Yield Strength Tensile Strength % Elongation (Mpa min.) (Mpa min.) | % Elongation | Gauge Length (mm) | Direction (L/T) |
| ASTM 653/A | CS Type A | 0.1 | 9.0 | | 0.03 | 0.035 | | 0.2 | 0.2 0 | 0.15 0.06 | 900.0 90 | 100 | 0.008 0.025 | 125 | | 170/380 | | >20 | 50 GL | _ |
| Low Carbon | CS Type B | 0.02-0.15 | 9.0 | | 0.03 | 0.035 | J | 0.2 0 | 0.5 0. | 0.15 0.06 | 800.0 90 | | 0.008 0.025 | 25 | N | 205/380 | | 220 | 50GL | |
| | CS Type C | 80.0 | 9.0 | | 0.1 | 0.035 | | 0.2 | 0.2 0 | 0.15 0.0 | 0.0 90.0 | 0.008 0.0 | 0.008 0.0 | 0.025 | | 170/410 | | | 50 GL | |
| | FS Type A | 0.1 | 0.5 | | 0.02 | 0.035 | | 0.2 | 0.2 0 | 0.15 0.0 | 0.0 90.0 | 0.008 0.0 | 0.008 0.0 | 0.025 | | 170/310 | | | 50 GL | |
| | FS Type B | 0.02 - 0.10 0.5 | 0.5 | | 0.05 | 0.03 | | 0.2 0 | 0.2 0. | 0.15 0.06 | 900.0 90 | | 0.008 0.025 | 25 | - | 170/310 | | 226 | 50 GL | |
| | SOO | 90.0 | 0.5 | | 0.02 | 0.025 | 0.010 m n | 0.2 | 0.2 0 | 0.15 0. | 0.06 0.0 | 0.008 0.0 | 0.008 0.0 | 0.025 | | 140/240 | | ≥32 | 50 GL | _ |
| | EDDS | 0.02 | 5.0 | | 0.02 | 0.05 | 0.010 m n | 0.2 | 0.2 0 | 0.15 0.1 | 0.06 0.1 | 0.1 | 1 0.15 | 2 | | 105/170 | | 540 | 50 GL | _ |
| J SG 3302 | SGCC | 0.12 | 9.0 | | 0.04 | 0.04 | | | | | | | | | | | | | | |
| | SGCH | 0.15 | 9.0 | | 0.05 | 0.05 | | | | | | | | | | | | | | |
| | SGCD1 | 0.12 | 0.5 | | 70.0 | 0.04 | | | | | | | | | | | 270 | 36 | 80 GL | _ |
| | SGCD2 | 0.1 | 0.45 | | 0.03 | 0.03 | | | | | | | | | | | 270 | 38 | 80 GL | _ |
| 5 | SGCD3 | 0.08 | 0.45 | | 0.03 | 0.03 | | 7 | | | - 20 | - 6 | | 24 | - 0 | | 270 | 40 | 80 GL | |
| S277:2003/ S | 0 5 | 0.15 | 9.0 | | 0.05 | 0.035 | | | | | | | | | N | 280 | 410 | | 20 | _ |
| 513:2008[G] | 0 | 0.12 | 0.5 | | 7.0 | 0.035 | | | | | | | | | - 1 | 240 | 370 | 31 | 50 | _ |
| | OO | 0.1 | 0.45 | | 0.025 | 0.03 | | | | | | | | | | 220 | 350 | 35 | 20 | _ |
| | EDD [A] K [[ed] | 80.0 | 5.0 | | 0.02 | 0.03 | | | | | | | | | | 210 | 350 | 37 | 20 | - |
| | EDD (F) | 90.0 | 0.25 | | 0.02 | 0.05 | | | | | | - | 0.15 | 2 | | 190 | 350 | 40 | 50 | ⊢ |
| EN 10327 | DX51D | 0.12 | 9.0 | 0.5 | 0.1 | 0.045 | | | | | | | 0.3 | | | | 270-500 | 22 | 80 GL | _ |
| | DX52D | | | | | | | | | | | | | | | 140-300 | 270-420 | 26 | 80 GL | _ |
| | DX53D | | | | | | | | | | | | | | | 140-260 | 270-380 | 30 | 80 GL | - |
| 3 | DX54D | | | | | | | | | | | - 3 | | | | 120-220 | 260-350 | 36 | 80 GL | Т |
| AS1397 | 61 | 0.12 | | | 0.04 | 0.035 | | | | | | 7 | | | , | | | | | |
| | 62 | 0.1 | | | 0.03 | 0.03 | | | | | | | | | | | | 30 | 27 | _ |
| | 63 | 0.08 | | | 0.02 | 0.025 | | | | | | | | | | | | 35 | 32 | _ |
| | 0 | - 6 | | | | | | | - 3 | | - // | | - 53 | 72 | | | | | | |

GALVANISED STRUCTURAL

| | | | DC | Chem | ical Composti | on (values are | in %) | 32 | 200 | 100 | | | | | Al . | 102 | Mechanic | al Properties | | | 100 |
|---------------------|-----------------------|------|-------|---------|---------------|----------------|-------|-------|------------|-------|----------|-----------|------------|-----------|------|-------------------|------------|---------------|--------------|--------------|-----------|
| Specification Grade | C | Mn | Si | Р | S | Al | Cu | Ni | Cr | Мо | ٧ | СЬ | Ti | N | В | Yield | Strength | Tensile | % Elongation | Guage length | Direction |
| | | | | | | | | | | | | | | | | | (Mpa.min.) | Strength | (Mpa.min.) | (mm) | (L/T^) |
| ASTM 653/A | GradeSS 33 [230] | 0.2 | - | - | 0.040 | 0.040 | - | 0.200 | 0.200 | 0.150 | 0.060 | 0.008 | 0.008 | 0.025 | | - | 230 | 310 | 20 | 50GL | L |
| Structural | GradeSS 37 [255] | 0.2 | 2 | = | 0.100 | 0.040 | 2 | 0.200 | 0.200 | 0.150 | 0.060 | 0.008 | 0.008 | 0.025 | - | 27 | 255 | 360 | 18 | 50GL | L |
| | GradeSS 40 [275] | 0.25 | = | | 0.100 | 0.040 | - | 0.200 | 0.200 | 0.150 | 0.060 | 0.008 | 0.008 | 0.025 | = | - | 275 | 380 | 16 | 50GL | L |
| | Grade 50 [340]class 1 | 0.4 | - | - | 0.200 | 0.040 | - | 0.200 | 0.200 | 0.150 | 0.060 | 0.008 | 0.008 | 0.025 | - | () -) | 340 | 450 | 12 | 50GL | L |
| | Grade 50 [340]class 2 | 0.4 | 2 | = | 0.200 | 0.040 | 27 | 0.200 | 0.200 | 0.150 | 0.060 | 0.008 | 0.008 | 0.025 | 141 | - | 340 | - | 12 | 50GL | L |
| | Grade 50 [340]class 3 | 0.5 | = | - | 0.040 | 0.040 | 8 | 0.200 | 0.200 | 0.150 | 0.060 | 0.008 | 0.008 | 0.025 | - | - | 340 | 480 | 12 | 50GL | L |
| | Grade 80 [550] | 0.20 | - | - | 0.040 | 0.040 | - | 0.200 | 0.200 | 0.150 | 0.060 | 0.008 | 0.015 | 0.025 | - | (m) | 550 | 570 | - | 50GL | L |
| ASTM 653/A | 40[275] | 0.20 | 1.20 | - | | 0.035 | = | 9 | 0.200 | 0.150 | 0.160 | 0.01 min. | 0.005 min. | 0.01 min. | 21 | | 275 | 340 | 22 | 50GL | L |
| Structural-HSLAS | 20[340] | 0.20 | 1.20 | - | (7.0 | 0.035 | - | 0.200 | 0.200 | 0.150 | 0.160 | 0.01 min. | 0.005 min. | 0.01 min. | 151 | 872 | 340 | 410 | 20 | 50GL | L |
| Type A | 60[410] | 0.20 | 1.35 | - | (*) | 0.035 | - | 0.200 | 0.200 | 0.150 | 0.160 | 0.01 min. | 0.005 min. | 0.01 min. | - | | 410 | 480 | 16 | 50GL | L |
| | 70[480] | 0.20 | 1.65 | 2 | - | 0.035 | === | 0.200 | 0.200 | 0.150 | 0.160 | 0.01 min. | 0.005 min. | 0.01 min. | 2 | :42 | 480 | 550 | 12 | 50GL | L |
| | 80[550] | 0.20 | 1.65 | = | 17.0 | 0.035 | = | 0.200 | 0.200 | 0.150 | 0.160 | 0.01 min. | 0.005 min. | 0.01 min. | 101 | 970 | 550 | 620 | 10 | 50GL | L |
| ASTM 653/A | 40[275] | 0.15 | 1.20 | - | - | 0.035 | | - | 0.200 | 0.150 | 0.160 | 0.01 min. | 0.005 min. | 0.01 min. | - | - | 275 | 340 | 24 | 50GL | L |
| Structural-HSLAS | 20[340] | 0.15 | 1.20 | 2 | 525 | 0.035 | = | 0.200 | 0.200 | 0.150 | 0.160 | 0.01 min. | 0.005 min. | 0.01 min. | 21 | ·22 | 340 | 410 | 22 | 50GL | L |
| Туре В | 60[410] | 0.15 | 1.20 | 5 | 57.0 | 0.035 | = | 0.200 | 0.200 | 0.150 | 0.160 | 0.01 min. | 0.005 min. | 0.01 min. | - | 273 | 410 | 480 | 18 | 50GL | L |
| | 70[480] | 0.15 | 1.65 | - | (4) | 0.035 | - | 0.200 | 0.200 | 0.150 | 0.160 | 0.01 min. | 0.005 min. | 0.01 min. | - | - | 480 | 550 | 14 | 50GL | L |
| | 80[550] | 0.15 | 1.65 | | 2 | 0.035 | 5 | 0.200 | 0.200 | 0.150 | 0.160 | 0.01 min. | 0.005 min. | 0.01 min. | 24 | 743 | 550 | 620 | 12 | 50GL | L |
| JIS G 3302 | SGC 340 | 0.25 | 0.170 | = | 0.10 | 0.035 | = | 873 | 97.1 | - | 550 | - | - | 17.1 | 101 | 270 | 245 | 340 | 20 | 80GL | L |
| | | max. | max. | | max. | max. | | | | | | | | | | | | | | | |
| | SGC 400 | 0.25 | 0.170 | <u></u> | 0.10 | 0.035 | 5 | 740 | 142 | 2 | 20 | 5 | 5 | 12 | 2 | 723 | 295 | 400 | 18 | 80GL | L |
| | | max. | max. | | max. | max. | | | | | | | | | | | | | | | |
| | SGC 440 | 0.25 | 0.170 | - | 0.20 | 0.035 | - | - | - | - | (=) | - | - | - | - | - | 335 | 440 | 18 | 80GL | L |
| | | max. | max. | | max. | max. | | | | | | | | | | | | | | | |
| | SGC 490 | 0.25 | 0.170 | - | 0.20 | 0.035 | - | - | 1975 | 5.5 | (=) | - | - | - | 1.7 | - | 365 | 490 | 16 | 80GL | L |
| | | max. | max. | | max. | max. | | | | | | | | | | | | | | | |
| | SGC 570 | 0.25 | 0.170 | <u></u> | 0.20 | 0.035 | 743 | 12 | 162 | ₩ | <i>₩</i> | 5 | 5 | 527 | 2 | 727 | 560 | 570 | | 80GL | L |
| | | max. | max. | | max. | max. | | | | | | | | | | | | | | | |
| EN 10326 S220 GD | 0.20 | 1.70 | 0.60 | 0.100 | 0.045 | 241 | 924 | 520 | 52 | 2 | (40) | 2 | -2 | - | 2 | - | 220 | 300 | 20 | 80GL | L |
| | S250 GD | | | | | | | | | | | | | | | | 250 | 330 | 19 | 80GL | L |
| | S280 GD | | | | | | | | | | | | | | | | 280 | 360 | 18 | 80GL | L |
| | S320 GD | | | | | | | | | | | | | | | | 320 | 390 | 17 | 80GL | L |
| | S350 GD | | | | | | | | | | | | | | | | 350 | 420 | 16 | 80GL | L |
| | S550 GD | | | | | | | | | | | | | | | | 550 | 560 | - | 80GL | L |
| AS 1397 | G 250 | 0.12 | 0.50 | - | 0.040 | 0.035 | ~ | 12 | (a) | 2 | 523 | - | - | - | 2 | - | 250 | 320 | 25 | 22 | L |
| | G 300 | 0.30 | 1.60 | = | 0.100 | 0.035 | - | E | - | H | - | - | = | - | E | | 300 | 340 | 20 | 18 | L |
| | G 350 | 0.30 | 1.60 | - | 0.100 | 0.035 | - | - | 100 | - | - | - | - | - | - | () - (| 350 | 420 | 15 | 14 | L |
| | G 450 | 0.20 | 1.20 | ₩. | 0.040 | 0.030 | - 12 | - | (<u>1</u> | 2 | 2 | = | = | - | 2 | -2 | 450 | 480 | 10 | 9 | L |
| | G 500 | 0.20 | 1.20 | - | 0.040 | 0.030 | 27 | 87.6 | 973 | 5 | 570 | = | = | 151 | - | 273 | 500 | 520 | 8 | 7 | L |
| | G 550 | 0.20 | 1.20 | - | 0.040 | 0.030 | | - | ()=) | - | - | - | - | - | - | ()- / | 550 | 550 | 2 | 2 | L |

PACKAGING

JSW offers its products with effective packaging as per customer requirements and in compliance with international norms. Emphasis is placed to ensure durability, prevention of any damage during transportation and better storage. JSW with its years of experience and regular benchmarking with various national and international companies, endeavours to improvise packaging in accordance with changing customer needs.

JSW has a stringent procedure for evaluating the competency level of suppliers for packaging material. Material quality is verified at the well-equipped and sophisticated JSW laboratory before offering for use.

The packing requirements for export and domestic markets are different. However, the type of packaging is determined in consideration of the following points:

- Customer needs
- Duration of transportation
- Environmental conditions during transit
- Handling during transit
- · Handling at customer's premises
- Storage practices
- International regulation on package material



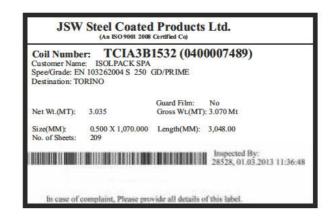


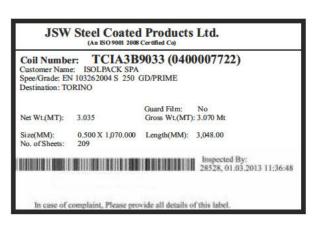




MARKING

Marking, in concept, leads to product accountability and verification at the time of production, transportation and delivery. Considering the vast product range at JSW, labelling practices ensure a foolproof identification and traceability.





RESEARCH & TESTING FACILITIES

- Metallurgical Microscope
- Karl Fischer Titrator
- · Portaspec for Surface Chrome
- Muffle Furnace
- Computerized UTM
- · Roughness Tester
- · Vicker's Hardness Tester
- Lock Former
- · Salt Spray Chamber
- Digital Hardness Tester
- Salt Spray Chamber
- Optical Emission Spectrometer
- Atomic Absorption Spectrometer
- · Low Magnification Microscope
- Scratch Resistance Test
- Pencil Hardness Test
- Bend Test
- Accelerated Corrosion Test
- Methyl Ethyl Ketone (MEK) Test
- Dry Film Thickness Test









THE ULTIMATE TEST

Galvanised Coils are used in a variety of applications

- Automobile
- · Roofing & Cladding
- Ducting
- Purlins / PEB
- Panels
- Pipes & Tubes
- General Engineering

SALES OFFICES

AHMEDABAD

410, Abhishilp Complex, Near Keshavbag Party Plot, Manasi Cross Road, Satellite, Ahmedabad - 380 015 Tel: 079-40029508, 40029510, 40029509

BENGALURU

The Estate, 3rd Floor, West Wing, 121, Dickenson Road, Bengaluru - 560 042 Tel: 080-42448888

CHENNAI

Fagun Mansion, 5th Floor, New No.74, Old No.26, Ethiraj Salai, Egmore, Chennai - 600 008 Tel: 044-28297420, 28297422

COIMBATORE

T. V. Swamy Road (West), Coimbatore - 641 002 Tel: 0422-2541870

DELHI

NTH Complex (4th Floor), A-2, Shaheed Jeet Singh Marg, Qutub Institutiuonal Area, New Delhi – 110016 Tel: 011-48178600 Fax: 011-48178699

FARIDABAD

Plot No. 161, Sector 24, Faridabad - 121 004, Haryana Tel: 0129-2239248, 2232387

NOIDA

14A, Industrial Area, Buland Shar Road, Ghaziabad - 201 009 Tel: 0120-3262875, 2867142

GUWAHATI

106, 3rd Floor, Meer Market, Maszid Lane, Kamarpatty, Guwahati - 781 001 Tel: 0361-2730054

HYDERABAD

7th Floor, Surya Towers, 105, Sardar Patel Road, Secunderabad - 500 003 Tel: 040-27846669/79

INDORE

3rd Floor, Lakshya Badgara, 13/1, New Palasia, Near Curewell Hospital, Indore - 452 001 Tel: 0731-2532156/57/58/59, 4043613

JAIPUR

Evershine Tower, F-1, 705, 7th floor, Amarpali Circle, Vaishali Nagar, Jaipur - 302 021 Tel: 0141-4026760/62/63/64

KANPUR

Room No.105, Ratan Esquire, Chunniganj, Kanpur - 208 001 Tel: 0512-3271907

KOCHI

Mitsun Enterprise, 30/1854 B4, 1st Floor, Ponnurunni Road, Chalikkavattom Junction, Vytilla P.O., Kochi – 682 019 Tel: 0484-4026392/ 4063294

KOLKATA

Godrej Waterside, 10th floor, Tower - 1, Unit No. 1003, Block -DP, Plot -5, Sector V, Salt Lake City, Kolkata - 700 091 Tel: 033-40002020 Fax: 033-40002021

LUDHIANA

109, Modelgram, Near Kochar Market, Opp. Malwa School, Ludhiana - 141 002 Tel: 0161-6578944, 6450816

MUMBAI

Grande Palladium, 6th Floor, 175, CST Road, Kalina, Santacruz (East), Mumbai - 400 098 Tel: 022-61871000

NAGPUR

Poonam Plaza, Palm Road, Civil Lines, Nagpur-440 001 Tel: 0712- 2520333

PATNA

1, Tilak Nagar East, Behind Patna Diesel, Kankarbagh, Patna - 800 020 Tel: 08002230517

PUNE

Epicentre 2nd Floor, CTS No. 4/6, Above Royal Enfield Showroom Shivajinagar, Wakdewadi, Pune - 411005 Tel: 020-64104547, 27111427

RUDRAPUR

Plot No. 264, By Pass Road, Village Kishanpur, Kichha, District Udam Singh Nagar Uttrakand - 263 148 Tel: 05944-263290