



Australian Government
Australian Customs and
Border Protection Service

R E P O R T

INVESTIGATION INTO

THE ALLEGED DUMPING OF

POLYVINYL CHLORIDE HOMOPOLYMER RESIN

EXPORTED FROM

THE REPUBLIC OF KOREA

AUSTRALIAN INDUSTRY REPORT

AUSTRALIAN VINYL CORPORATION PTY LTD

This report and the views and recommendations contained therein will be reviewed by the case management team and may not reflect the final position of Customs and Border Protection

May 2012

1 CONTENTS

1	CONTENTS.....	2
2	BACKGROUND.....	3
2.1	The application.....	3
2.2	Existing measures.....	3
2.3	Visit.....	4
2.4	Contact details.....	4
2.5	Investigation process and timeframes.....	4
3	COMPANY BACKGROUND.....	6
3.1	Company structure.....	6
3.2	Accounting practices.....	7
4	THE GOODS AND LIKE GOODS.....	8
4.1	The goods.....	8
4.2	Like goods.....	8
5	THE AUSTRALIAN INDUSTRY.....	9
5.1	Australian production.....	9
5.2	PVC production process.....	9
5.3	Capacity, employment and annual turnover.....	10
6	AUSTRALIAN MARKET.....	11
6.1	Market structure.....	11
6.2	Market size and demand.....	11
6.3	Distribution arrangements.....	12
6.4	Korean imports.....	12
7	SALES.....	14
7.1	Introduction.....	14
7.2	Verification of domestic sales.....	15
7.3	Conclusion.....	16
8	IMPORTS.....	17
9	COST TO MAKE AND SELL.....	18
9.1	Production volumes.....	18
9.2	Verification of cost to make.....	18
9.3	Conclusion.....	20
10	ECONOMIC CONDITION OF THE INDUSTRY.....	21
10.1	Volume effects.....	21
10.2	Price effects.....	22
10.3	Revenue, profit and profitability effects.....	23
10.4	Summary of major injury indicators.....	25
10.5	Other injury indicators.....	25
11	INJURY AND CAUSATION.....	26
11.1	Injury.....	26
11.2	Causation.....	26
12	UNSUPPRESSED SELLING PRICE.....	28
13	GENERAL COMMENTS.....	29
14	ATTACHMENTS AND APPENDIX.....	30

2 BACKGROUND

2.1 The application

On 16 March 2012, Australian Vinyls Corporation Pty Ltd (Australian Vinyls) lodged an application requesting that the Minister for Home Affairs (the Minister) publish a dumping duty notice in respect of polyvinyl chloride homopolymer resin (PVC) exported to Australia from the Republic of Korea (Korea).

The applicant alleged that the Australian industry has suffered material injury caused by PVC exported to Australia from Korea at dumped prices. The applicant claimed that material injury commenced in mid-2010 following the expiration of anti-dumping measures on PVC exports from Korea and that the industry had been injured through:

- loss of sales;
- reduced market share;
- price depression;
- price suppression;
- reduced profits;
- reduced profitability,
- reduced production volumes; and
- reduced return on investment.

Following consideration of the application by a delegate of the Chief Executive Officer (CEO) of the Australian Customs and Border Protection Service (Customs and Border Protection) an investigation was initiated on 23 April 2012. Public notification of initiation of the investigation was made in *The Australian* on 23 April 2012. Australian Customs Dumping Notice (ACDN) No. 2012/14 provides further details of the investigation and is available at www.customs.gov.au.

2.2 Existing measures

There are no anti-dumping measures on PVC exported from Korea to Australia. Anti-dumping measures previously applied to PVC exported from Korea to Australia for the period 2000 to 2010.

The measures were imposed in 2000 following consideration of Trade Measures Report No 10 (REP 10) by the Minister and continued for five years in 2005 (REP 91 refers). Measures on PVC from Korea expired in March 2010 (REP 151 refers).

Anti-dumping measures currently apply to exports of PVC from Japan and the United States of America (USA). The measures for Japan are due to expire on 21 October 2012 and are subject to a continuation inquiry, the measures for the USA apply to 23 January 2017 unless revoked earlier. The measures for Japan and the USA are subject to a review of the normal values and non-injurious free on board prices.

Customs and Border Protection is due to issue its statements of essential facts (SEFs) for the above continuation inquiry and review by 11 August 2012, this follows approval by the Minister for an extension to the original SEF dates of 13 June 2012.

2.3 Visit

Australian Vinyls was visited from 22-23 March 2012 to verify its information in regards to the continuation inquiry and review mentioned in the previous section. The data and information verified at that visit comprises the same data required to be verified for this investigation, as such a separate verification visit was not required.

A report of the visit was compiled and a non-confidential version placed on the public record for the continuation inquiry and review.

This report draws on the information verified at that visit, information from the application plus requests to Australian Vinyls for further information relating to Korea.

2.4 Contact details

Company:	Australian Vinyls Corporation Pty Ltd
Address:	65 Leakes Road, LAVERTON NORTH VIC 3026
Telephone:	03 9368 6221
Fax:	03 9368 4881
Date of visit	22-23 March 2012
Australian Vinyls Corporation (Australian Vinyls)	Peter Flinn, Sales and Marketing Manager Ian Owens, Commercial Manager Adnan Fetai, Accountant
Consultant	Mr John O'Connor
Customs and Border Protection Service	John Bracic, Director, Operations 1 Rod Jones, Manager, Operations 1 Rachel Lohan, Supervisor, Operations 1

2.5 Investigation process and timeframes

Anti-dumping measures may be imposed where Customs and Border Protection finds that there is dumping of those goods exported to Australia, and that the local Australian industry has suffered material injury as a result of those dumped goods.

The investigation period is 1 January 2011 to 31 December 2011. Customs and Border Protection will examine exports to Australia of the goods during that period to determine whether dumping has occurred.

Customs and Border Protection will examine details of the Australian market from 1 January 2009 for injury analysis purposes.

The processes and timeframes for the investigation are as follows:

- Initiation date, 23 April 2012:
- Submissions, including exporter questionnaires, due by 4 June 2012;

- statement of essential facts (SEF) due by 11 August 2012;
- submissions in response to SEF due by 2 September 2012; and
- final report to Minister due by 25 September 2012.

A preliminary affirmative determination (PAD) may be made no earlier than 22 June 2012.

The CEO may make a determination where satisfied that there appears to be sufficient grounds for the publication of a dumping duty notice. Provisional measures in the form of securities may be imposed at the time of the determination or at any time after the determination has been made where satisfied that it is necessary to do so to prevent material injury continuing while the investigation continues.

We informed Australian Vinyls that we would compile a confidential report and provide the opportunity for Australian Vinyls to comment on the accuracy of the report. Following approval of this report a non-confidential version would then be prepared for the public record.

We also informed Australian Vinyls that all information provided by Australian Vinyls to Customs and Border Protection would be treated as confidential unless advised otherwise.

We explained the operation of the public file system, and the opportunity for Australian Vinyls and all interested parties to comment on reports and submissions placed on the public record, in particular the statement of essential facts.

3 COMPANY BACKGROUND

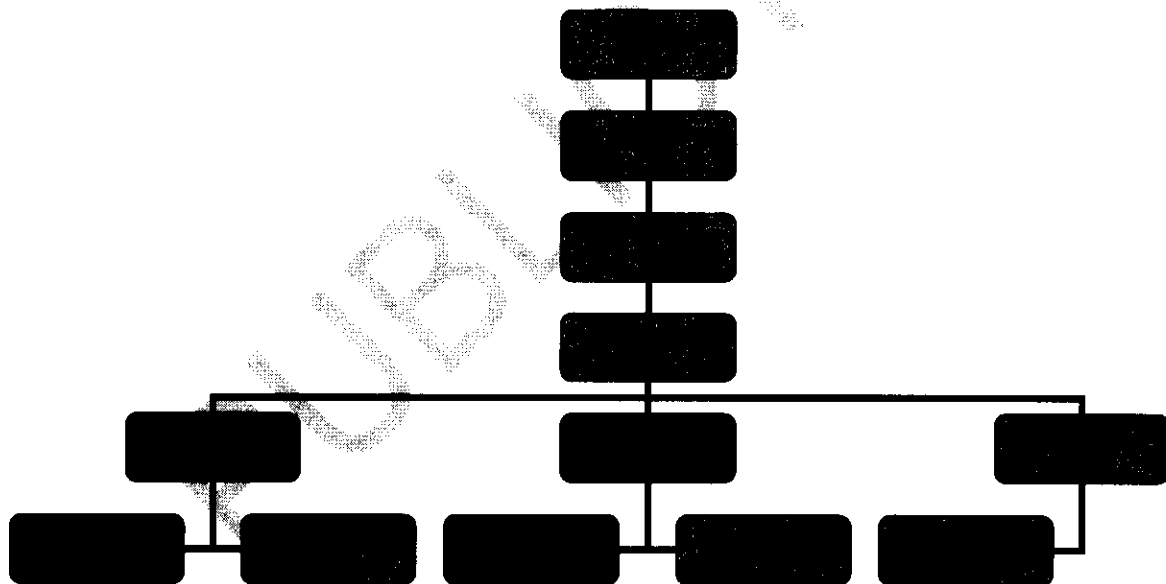
3.1 Company structure

Australian Vinyls was established in 1997 as a joint venture of the two PVC resin manufacturing operations then existing in Australia: ICI Vinyls (now Orica Australia Pty Ltd) and Auseon Limited (now PolyOne). Australian Vinyls became a wholly owned subsidiary of AVC Holdings Pty Ltd (AVC Holdings) in 2002. AVC Trading Pty Ltd (AVC Trading) was also formed in 2002 to import PVC.

In June 2004 AVC Holdings acquired a majority interest of 65% (and then acquired the remaining 35% interest in July 2005) in a company, ModWood Technologies Pty Ltd (ModWood). ModWood manufactures decking board from recycled milk bottles.

In June 2005 Australian Vinyls management, Colonial First State Investments Ltd and Colonial First State Private Capital Ltd formed a new company, Manacol Pty Ltd (Manacol). Manacol then acquired 100% of the shares in AVC Holdings. In September 2007, Manacol's shares were acquired by CSBP Ltd, which is 100% owned by Wesfarmers Ltd.

The company group structure is illustrated in the following diagram.



Australian Vinyls has the following product streams:

- locally manufactured PVC; and
- specialty products (plasticisers, stabilisers and impact modifiers and processing aids for extruders) for resale.

AVC Trading has the following product streams:

- imported PVC; and
- imported caustic soda for resale by Australian Vinyls.

3.2 Accounting practices

Australian Vinyls has four businesses:

- resins (PVC);
- speciality products;
- caustic soda; and
- ModWood.

Australian Vinyls has been operating on a July to June financial year since the change of ownership in 2002. It uses JD Edwards' One World Financial Software (One World), an enterprise resource planning system, to record all production, costs, sales and accounting data. It uses a stand alone system to record payroll information.

Australian Vinyls advised it was unable to provide audited financial statements as it ceased producing audited financial reports in 2007 when it was acquired by CSBP. However, we were able to verify data to Manacol's consolidated income statement, which identified income and costs for each business. Australian Vinyls stated that this data is reflected in Wesfarmers audited financial statements.

Australian Vinyls uses standard costs which results in purchase price and efficiency variances. It accounts for variances monthly.

4 THE GOODS AND LIKE GOODS**4.1 The goods**

The goods the subject of the application are described as follows:

Polyvinyl chloride homopolymer resin (PVC) is a white powder produced by the polymerisation of vinyl chloride monomer ("VCM"). PVC can be manufactured through a suspension process or a mass process, and the final goods are considered to be similar and interchangeable.

The application excludes paste (or emulsion), compound grades and recycled PVC.

Tariff classification

PVC is classified under sub-heading 3904.10.00, statistical code 18, in Schedule 3 to the *Customs Tariff Act 1995*. The duty rate for PVC from Korea is currently 5%.

4.2 Like goods

In previous investigations, inquiries and reviews in respect of PVC, Customs and Border Protection determined that Australian Vinyls was the Australian industry producing like goods. On the basis of information provided by Australian Vinyls during this visit and previous visits, Customs and Border Protection considers Australian Vinyls is a producer of like goods.

5 THE AUSTRALIAN INDUSTRY**5.1 Australian production**

Australian Vinyls is the sole manufacturer of PVC in Australia. Its production facilities are in Laverton North, Victoria. The company manufactures PVC and wood-plastic compounds, as well as supplying a range of imported chemicals including caustic soda, PVC processing additives, synthetic rubbers and speciality elastomers.

The PVC produced by Australian Vinyls includes:

Grade	K value	Major End Use
57R1	57.2	Rigid fittings, pipe elbows, caps, joins and inner core foam core pipe.
62R2	62	Rigid extruded profiles, non-pressure pipe
66R1 & 66R2	66	Rigid, pressure non-pressure pipe, conduit, profiles
67R1 & 67R2	67	Rigid, pressure non-pressure pipe, conduit, profiles
67F1	67	Flexible, electrical plugs, footwear, auto trims, flooring
71F1	71	Flexible, insulation sheathing of cables, catering film, hose, footwear

All PVC produced by Australian Vinyls is sold under the brand name "Corvic", technical data sheets for the above are at **non-confidential attachment G-1**.

5.2 PVC production process

PVC is a white free flowing powder that is used in combination with other chemicals to produce a variety of products.

The main input into the production of PVC is vinyl chloride monomer (VCM). VCM is manufactured by combining ethylene and chlorine to form ethylene dichloride that is cracked in a furnace. PVC is made in a batch process in which VCM droplets are

polymerised, while suspended in water, in the presence of an initiator and other additives.

Australian Vinyls advised that its strategy [REDACTED]

[REDACTED]. [Information on Australian Vinyls' production strategy].

5.3 Capacity, employment and annual turnover

Australian Vinyls stated that its Laverton North plant has the capacity to produce approximately 140,000 tonnes of PVC per annum depending on the mix of PVC grades produced. The plant has two streams that produce the various grades of PVC.

Australian Vinyls employs approximately [REDACTED] people, of which about [REDACTED] are employed in the production and sale of PVC.

Australian Vinyls annual turnover is about \$[REDACTED] million, of which about [REDACTED]% relates to locally produced PVC and about [REDACTED]% to PVC imported by Australian Vinyls Trading.

All of Australian Vinyls PVC is sold on the Australian domestic market, no PVC is exported.

6 AUSTRALIAN MARKET

6.1 Market structure

The Australian market for PVC is supplied through local production and imports from a number of sources. Australian Vinyls imports PVC from Taiwan to supplement domestic production.

PVC is sold to a range of processors who either extrude, inject, mould or blow mould the PVC to make a wide variety of goods. The major end-use of PVC based products is in the building and construction sector (such as pipes and fittings, cables, house cladding, gutters, down pipes, flooring and window frames). PVC based products are also used in water supply piping, packaging, upholstery and domestic appliances.

6.2 Market size and demand

During the recent continuation inquiry into PVC from the USA (Rep 174), Customs and Border Protection estimated the size of the market at slightly over 190,000 tonnes in the financial years 2009-10 and slightly below 190,000 tonnes in 2010-11. REP 174 showed the market peaking in 2007/08 at around 225,000 tonnes before declining in subsequent years.

In its application Australian Vinyls estimated the size of the market in the calendar year 2011 at approximately 180,000 tonnes. Australian Vinyls estimated the current market was at 190,000 to 200,000 tonnes per annum.

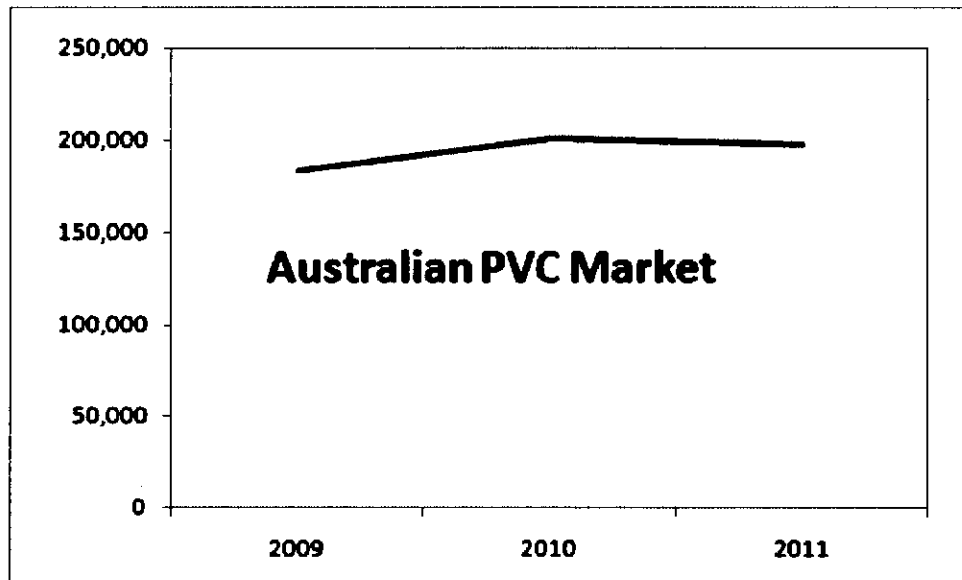
Australian Vinyls said that it relies on monthly forecasts from its larger customers to estimate demand for the next three months, however these forecasts can be unreliable.

Australian Vinyls said the market is weaker due to the effects of the global financial crisis and the breaking of the drought and floods. During the drought there was demand for large water projects requiring irrigation pipe, however the floods reduced demand as there was no longer a need for those projects. In addition it also became impossible to lay pipes in the flooded areas. The global financial crisis had an effect due to the slowdown in the construction industry which uses PVC for pipes, cables flooring, profiles, ducting, window profiles and siding. Technology improvements, such as using thinner walled pipes, can also affect demand as less material is required, however this may make PVC more competitive as it lessens the cost.

Australian Vinyls was also affected in the first half of 2008 by a prolonged plant shutdown that meant its larger customers could not get PVC at a time when the economy was still booming.

Customs and Border Protection estimated the size of the Australian market for the calendar years 2007-2011 using information from its import database and information supplied by Australian Vinyls. The market declined from 2007 to 2009 before increasing to approximately 200,000 tonnes per annum in 2010 and 2011.

Movements in the size of the Australian market for the calendar years 2009 to 2011, the injury period, are illustrated in the following chart.



6.3 Distribution arrangements

Australian Vinyls said that PVC is stored in bulk silos at its Laverton facilities and also in ■ tonnes shipped by rail and stored at leased sites in different states. The PVC can also be stored at its customers sites using the customers silos and sold on a consignment arrangement where the customer pays for the PVC it uses each month from the amounts held on the site.

Australian Vinyls also advised that PVC may be delivered direct to customers as bulk shipments using B-double trucks. Approximately ■% of its sales are bulk sales with other pack types being 25 kilogram bags comprising about ■% of sales and bulk bags of one tonne comprising about ■% of sales.

The Australian Vinyls produced Corvic brand is sold to all states, however when the market is strong PVC imported by Australian Vinyls is sold primarily in Queensland and Western Australia due to the high transport costs to sell Corvic there.

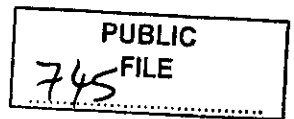
Australian Vinyls advised that its imported PVC is also stored on site around Australia, however the Corvic product takes priority over the imported product for sales.

6.4 Korean imports

In its application Australia Vinyls noted that Australian Bureau of Statistics ("ABS") data for PVC classified to 3904.10.00 statistical code 18 is the subject of No Country Declared and No State Detail restriction embargoes.

Australian Vinyls also noted that it purchased export statistics from ■■■■■ for PVC exports to Australia from 2006 and considered the data reliable for PVC resin exports to Australia.

PUBLIC FILE



The application notes that the data shows exports of PVC from Korea in 2011 increased dramatically following the expiration of anti-dumping measures in March 2010 and estimated that Korea's total PVC exports to Australia in 2011 were 22,499 tonnes.

Customs and Border Protection noted in its Consideration Report (CON 187) for this investigation that exports of PVC from Korea to Australia have increased from 2009 to 2011.

PUBLIC FILE

7 SALES**7.1 Introduction**

Australian Vinyls provided monthly sales of domestically produced PVC in its cost to make and sell spreadsheet. It separately provided monthly sales of imported PVC. Prior to the visit, Australian Vinyls provided a sales ledger report with a line by line sales listing for the period October 2010 to December 2011. Australian Vinyls explained that it separately reported sales of locally produced PVC (company 10) and imported PVC (company 90).

7.1.1 Reconciliation

We reconciled the sales data between the Appendix A 6 for domestically produced PVC, the imports appendix and Appendix A 4 for all sales for 2011. There was a minor variance on sales revenue (-0.9%) for domestically produced PVC and minor variances on revenue (1.4%) and volumes (0.5%) for imported PVC between the appendices.

This reconciliation is at confidential attachment sales 1

7.1.2 Pricing

Australian Vinyls explained that it negotiated prices with major customers monthly and formalised these prices in a price letter to the customer.

Australian Vinyls said that the pricing is based on [REDACTED] [commercially sensitive pricing details]. The [REDACTED] port and unloading charges in Australia and storage and distribution costs.

Australian Vinyls advised that [REDACTED] [Information on Australian Vinyls pricing strategy] PVC imported by Australian Vinyls was sold at the same price to its customers as its produced PVC.

7.1.3 Rebates and discounts

[REDACTED] [Information on Australian Vinyls pricing strategy] The value of rebates varied from customer to customer.

Australian Vinyls advised that rebates were recorded in the sales ledger in the same month that the goods subject to the rebate were sold. However, it explained that one customer, [REDACTED] also received additional rebates that were [REDACTED]

[REDACTED]
additional rebates].

[details of

7.1.4 Selling and distribution

Australian Vinyls stated that its largest customers were [REDACTED] and [REDACTED]. These customers have several locations around Australia. Australian Vinyls explained that its price to these customers was the same regardless of the location and source of the PVC, locally produced or imported. However Australian Vinyls said that it did incur additional freight costs depending on where the goods were delivered. As a result, Australian Vinyls explained that it was most advantageous for it to sell domestically produced PVC to New South Wales, South Australia and Victoria and imported PVC to Western Australia and Queensland. However, Australian Vinyls explained that it was only able to do this when the market was large enough and it could sell all of its production in the southern states.

Australian Vinyls stated that it processes orders in two ways:

- receives the order by phone which is entered directly into One World; and
- according to a monthly delivery schedule – one order is raised for the month and delivered according to the delivery schedule.

Australian Vinyls stated that over [REDACTED]% of its sales are by consignment, the PVC is stored in silos at the customer's site and Australian Vinyls invoices the customer according to the amount of PVC used each month. The sale of PVC is booked as a sale and invoiced to the customer when the PVC is used, not when the PVC is delivered.

7.2 Verification of domestic sales

7.2.1 Verification to financial accounts (completeness)

As noted above, Australian Vinyl's accounts are not audited. However, we were able to verify data to Manacol's consolidated income statement.

7.2.2 Sales of domestically produced PVC

Australian Vinyls provided Manacol's consolidated income statements for the months ended June 2011 and December 2011, the 12 months ended June 2011 and the six months ended December 2011. These documents are at confidential attachment sales 2.

Sales revenue and rebates are reported in Manacol as separate items, the A 4 appendices provided separate details on revenue and rebates whilst the A 6 appendix provides revenue net of rebates.

Whilst the revenues net of rebates reconciled to the A 6 with a minor discrepancy (0.002%) the rebates on the A 4 listing did not reconcile to the Manacol statement.

Australian Vinyls explained that this discrepancy was due to the additional [REDACTED] rebates [REDACTED] [details of additional rebates].

Australian Vinyls provided the June 2011 GMargin report, the sales ledger report listing the rebates and a listing of journal entries for that month. The rebates in the sales ledger report reconciled to the listing in the A 4, whilst the rebates inclusive of journal entries reconciled to the Manacol statement for June 2011. We are therefore satisfied that the [REDACTED] additional rebates were the cause of the discrepancy. The net sales and volumes in the GMargin report reconciled to the A 6 data. Documents relating to the rebates and reconciliation are at confidential attachment sales 3.

7.2.3 Sales of imported PVC

The net sales on the Gmargin report for June 2011 matched to the A 4 and A 6 listing. The volume of [REDACTED] tonnes on the Gmargin report matched to the A 4 listing but not the import appendix listing of [REDACTED] tonnes for June 2011, this volume difference represented the difference noted at section 7.1.1. We considered that the A 4 and Gmargin reported the correct volume and changed the import appendix listing for June 2011 volume to [REDACTED] tonnes. We noted that all of the [REDACTED] additional rebates were applied against revenue from sales of domestic production. The value of these rebates attributable to imported PVC is not large enough to distort the analysis of Australian Vinyls' performance in respect of domestic production.

7.2.4 Verification to source documents (relevance and accuracy)

We selected eight sales transactions for verification from the A 4 sales listing and two associated rebate transactions. Australian Vinyls provided copies of sales and rebate invoices, proof of payment and pricing offers and formulae for the selected transactions. We were able to reconcile the documents to the listings and the pricing offers to the prices on the invoices. These documents are at confidential attachment sales 4.

7.3 Conclusion

We have verified the sales data provided in the application. We are satisfied the data is complete, accurate and reliable and sales of domestically produced PVC can be clearly identified from sales of imported PVC.

8 IMPORTS

Australian Vinyls imports PVC via AVC Trading to supplement domestic production. Sales of domestic production and imports are separately recorded in Australian Vinyls' sales ledger. Price agreements with Australian Vinyls' customers are for PVC, regardless of whether it is domestic production or imports.

Australian Vinyls currently purchases its PVC requirements from [REDACTED]. The delivery terms are [REDACTED] and the payment terms are [REDACTED]. AVC Trading negotiates the price of PVC on a shipment by shipment basis. The negotiation is guided by the prices quoted in [REDACTED] and other industry bulletins.

Australian Vinyls imports and sells the [REDACTED] PVC in bulk containers, bulk bags and 25 kilogram bags.

Australian Vinyls provided supporting documentation for four selected shipments, these documents are at confidential attachment imports 1. As noted above, Australian Vinyls does not distinguish between domestic production and imports in its sales process and in determining the profitability of the selected shipments it used selling prices and selling, general & administrative (SG&A) expenses from its cost to make and sell spreadsheet. Australian Vinyls provided monthly costings and profitability assessments of its imported PVC that showed overall the imported PVC was profitable for 2011.

9 COST TO MAKE AND SELL

We explained to Australian Vinyls that we needed to be satisfied that the data submitted in the application was complete, relevant and accurate. The company would have to demonstrate that the data could be verified and traced to financial statements and to source documents.

9.1 Production volumes

We did not verify production volumes as all costs are calculated using sales volumes.

9.2 Verification of cost to make**9.2.1 Variable manufacturing costs**

Variable manufacturing costs comprise raw materials and direct labour. The cost of imported raw materials is identified in appendix A6. The various components of this cost are identified in a variable costs tab. The major component is the landed cost of VCM. Australian Vinyls stated that the price of VCM is based on the [REDACTED].

We sought to verify the landed cost of VCM of \$[REDACTED] for December 2011, which accounted for about [REDACTED]% of the cost to make.

Australian Vinyls uses standard costs. The VCM landed cost has two components, the standard cost and the purchase price variance (PPV). The standard cost is calculated as follows:

- sales tonnes, excluding floor sweepings (total sales of [REDACTED] tonnes less floor sweepings of [REDACTED] tonnes – verified to the December sales listing report);
- multiplied by the standard cost (\$[REDACTED]);
- multiplied by [REDACTED] (tonnes of VCM required to make one tonne of PVC) to give the standard cost component of \$[REDACTED] million.

Documents relating to the standard costs for VCM are at **confidential attachment costs 1**.

A PPV is calculated for each shipment. The PPV for each month is the PPV in stock on hand at the end of the previous month plus the PPV for shipments during the month less the PPV on hand at the end of the month. Australian Vinyls provided a VCM PPV tracking spreadsheet (tracking spreadsheet) identifying shipments to the end of December 2011 and the PPV in stock on hand at the end of December (**confidential attachment costs 2**).

Australian Vinyls provided stock reports to verify stock holdings for the end of December for:

- all PVC stocks, including consignment stock, plus stock held for a particular customer, plus goods shipped but not invoiced ([REDACTED] tonnes);
- multiplied by [REDACTED] to represent VCM component ([REDACTED] tonnes);

- VCM stock held at the terminal;
- VCM held in tanks at Laverton; and
- VCM stock in transit.

Documents for stock holdings are at **confidential attachment costs 3.**

The last shipment was number X150, with tonnes into terminal of [REDACTED] tonnes, all of which was in stock. The previous shipment was X149, with tonnes into terminal of [REDACTED] tonnes, of which [REDACTED] tonnes is in stock.

The PPV for VCM for December is calculated as the difference of the closing balance of the PPV less PPV in stock. The PPV variance of \$[REDACTED] for December 2011 is in the income statement for Manacol.

We then sought to verify costs for shipment X149 in the tracking spreadsheet. This spreadsheet records:

- tonnes into terminal;
- the standard cost of VCM for the shipment, based on tonnes into terminal;
- total PPV for the shipment;
- an adjustment reflecting the difference between the standard cost and the amount paid to the supplier;
- ocean freight;
- clearing charges; and
- an adjustment reflecting the difference between the invoiced amount from the bill of lading and the tonnes into terminal, based on the standard cost of VCM in tanks at the terminal (Australian Vinyls stated that unless the quantity varies by more than [REDACTED]%, it pays on the bill of lading quantity, not tonnes into terminal).

Australian Vinyls provided supplier invoices and bank statements supporting the purchase cost and freight cost for the VCM (**confidential attachment costs 4.**). We verified the VCM and freight costs from the supplier invoices and to bank statements, there was a minor variance on the VCM cost of 0.02%.

We are satisfied that the raw material costs in the cost to make and sell spreadsheet reflect the actual raw material costs for the resins business in Manacol's consolidated income statement.

9.2.2 Fixed costs and selling and distribution expenses

Australian Vinyls advised that during previous investigations, Customs and Border Protection stated that costs should be recorded in the cost to make and sell spreadsheet in the format required by Customs and Border Protection, even though the company does not record costs in that format.

To complete the cost to make and sell spreadsheet Australian Vinyls runs a separate cost centre report identifying the total labour and non-labour costs in each fixed cost centre. A separate wages and salaries report is then run for each cost centre to identify the labour component. Australian Vinyls uses these reports to then:

- allocate a proportion of labour and non-labour costs from each cost centre to the resins business;
- further allocate costs to the cost to make, with the balance being allocated to SG&A expenses;
- allocate non-labour cost to make expenses to either variable or fixed costs;
- allocate labour cost to make expenses to direct labour costs; and
- allocates labour and non-labour SG&A costs to either selling or administrative expenses.

For example, purchasing and logistic costs are recorded in cost centres [REDACTED] and [REDACTED]. [REDACTED]% of these costs are allocated to the resins business. Australian Vinyls advised that the allocation percentages were determined some years ago.

Australian Vinyls provided a report by cost centre for the month and year to date ended December 2011, costs centres not associated with resins, such as Modwood and AVC Trading are identified in a summary analysis report. The total of the reports reconciled to the business unit fixed costs on the Manacol income statement for December 2011. These reports are at confidential attachment costs 5.

Australian Vinyls also provided a separate wages and salaries report for December 2011 that reconciled to the Manacol statement, this report is at confidential attachment costs 6.

The reports reconciled to the spreadsheets provided with the CTMS appendices and were used to allocate the labour and fixed costs to variable overheads, fixed overheads and selling and administration costs.

We are satisfied that the fixed costs in the cost to make and sell spreadsheet reflect the actual fixed costs for the resins business in Manacol's consolidated income statement.

9.2.3 Other costs

Depreciation charges, recorded in fixed manufacturing charges, and transport charges, recorded in selling expenses, were taken from the resins component of Manacol's consolidated income statement.

9.2.4 Verification to financial accounts

Australian Vinyls provided a reconciliation to trading profit spreadsheet from A 6 to Manacol accounts as part of the appendices. We were also able to separately reconcile the material, manufacturing and transport costs of [REDACTED] million in the A 6 to the net revenue less gross margin in the Manacol income statement of [REDACTED] million. The labour and fixed costs reconciled to the Manacol income statement as noted previously.

9.3 Conclusion

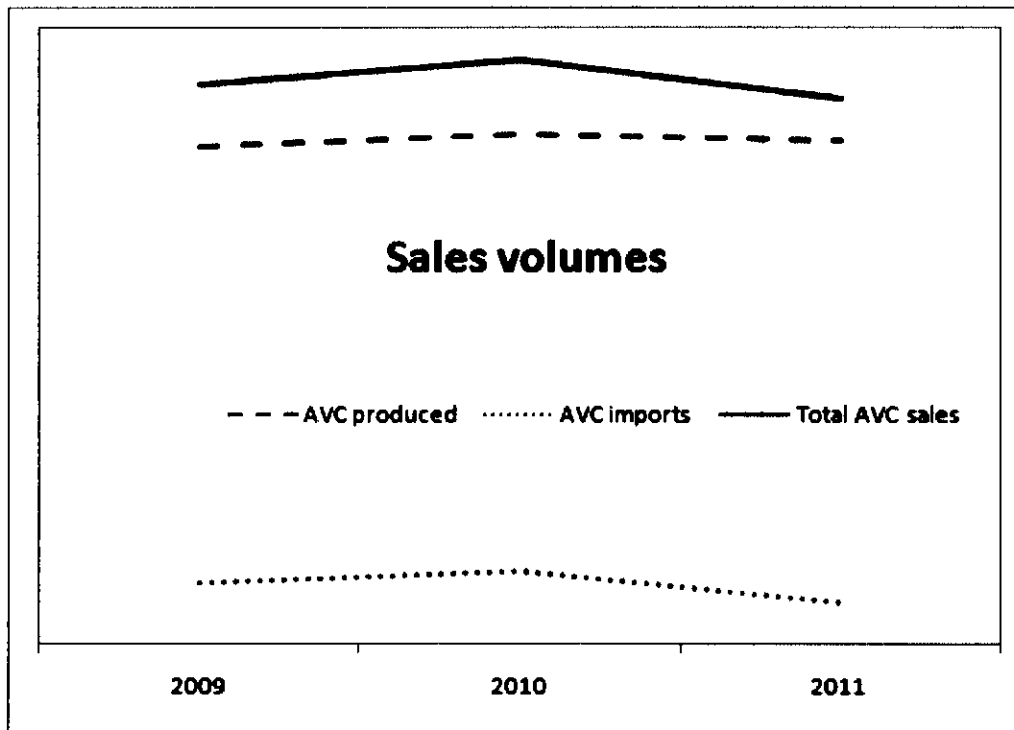
We have verified the cost data provided in Appendix A6. We are satisfied the data is complete, accurate and reliable and only includes costs in respect of domestic sales of like goods.

10 ECONOMIC CONDITION OF THE INDUSTRY

Australian Vinyls provided data to December 2011. The following analysis examines trends in respect of sales of local production and imports where noted, on a calendar year basis from 2009 to 2011.

10.1 Volume effects

Movements in sales volumes are illustrated in the following chart.



As noted previously, Australian Vinyls advised that its strategy [redacted] [information on Australian Vinyls' production strategy].

The data shows that Australian Vinyls sales of PVC fell in 2011, largely reflecting the fall in imports of PVC by the applicant.

As Australian Vinyls has been producing close to optimum capacity and has also managed to sell nearly all of its production loss of market share and loss of sales volumes would not appear to be injury factors relevant to this investigation. However, stock levels have risen in 2011 as noted further in this section.

Australian Vinyls submitted that it had maintained market share in the first half of 2011 however its share dropped dramatically in the second half of the year. Market share was measured at ■% and ■% in the first two quarters of 2011 respectively, falling to ■% and ■% in the second half of 2011.

Australian Vinyls provided graphs depicting market share by month and by quarter from January 2010 to March 2012. Australian Vinyls also provided details on market share at [REDACTED] over the same periods.

Australian Vinyls stated that the loss of sales volumes market share necessitated drastic alterations to the VCM shipping schedule and the Laverton production plan. Australian Vinyls delayed a shipment in October by seven days and shut the plant for seven days. Australian Vinyls also brought forward and extended the annual maintenance shutdown. The VCM ship that was contracted to load in November was cancelled. Rather than shut early in 2012 for approximately 14 days as is normal (note the 2010/11 shut was of normal length but completed in December), the plant was brought down to half rates on 10th December and shut completely on 25th December. The plant was re-started at half rates on 23rd January and went to full rates on 7th Feb. This significant loss of production was due entirely to the dramatic loss of market share in the second half of 2011.

We note that the market share calculated by Australian Vinyls includes its sales and thus market share of imported PVC, as shown in the above graph sales of imported PVC by Australian Vinyls have fallen in 2011.

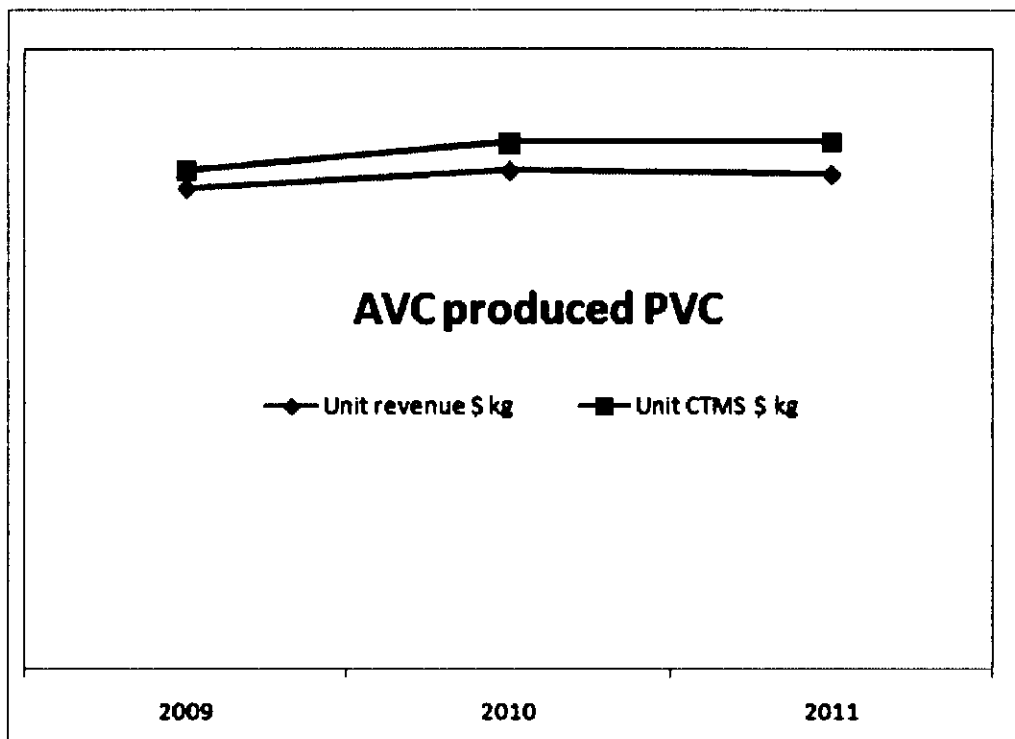
We also note that the data shows that sales to [REDACTED] have declined to less than 50% of previous levels in the December 2011 and March 2012 quarters and that total [REDACTED] sales in the March 2012 quarter are significantly below sales for previous March quarters.

The data shows that production for December 2011 and January 2012 is approximately 50% below that for previous years and supports Australian Vinyls statement on loss of production.

10.2 Price effects

Price depression occurs when a company, for some reason, lowers its prices.

Price suppression occurs when price increases for the applicant's product, which otherwise would have occurred, have been prevented. An indicator of price suppression may be the margin between revenues and costs. Movements in unit revenues and costs are illustrated in the following chart.



Australian Vinyl's costs have exceeded selling prices over the period of analysis and whilst costs remained unchanged in 2011, prices fell slightly in that same period.

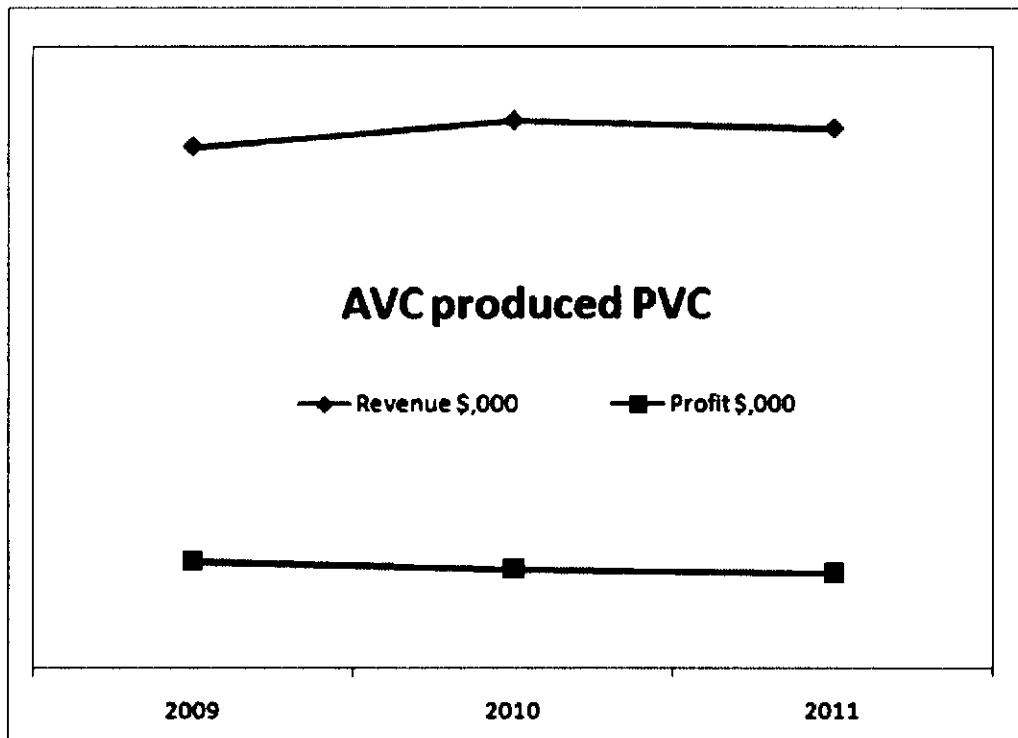
The negative margin between revenue and costs indicates that prices have been suppressed.

Australian Vinyls provided price details during 2011 of its major customers including [REDACTED]. Graphic presentations were also supplied evidencing price reductions by Australian Vinyls at each account, in support of its claimed price depression and price suppression claims.

Australian Vinyls also provided information on how the price suppression occurred and how it had a greater impact in the last few months of 2011. Prices initially dropped to one customer in July 2011 in response to cheaper import competition and then the price suppression gradually flowed through to other large customers. Australian Vinyls explained that following the price drop at one large customer, it needed to ensure that other large customers remained competitive in their markets if the price suppression continued. As it continued, prices were adjusted downwards at other large customers, either as an adjustment from a formula price or by negotiation, on a case by case basis. This flow through of the price suppression commenced in the third quarter of 2011 but became more obvious in the fourth quarter of 2011.

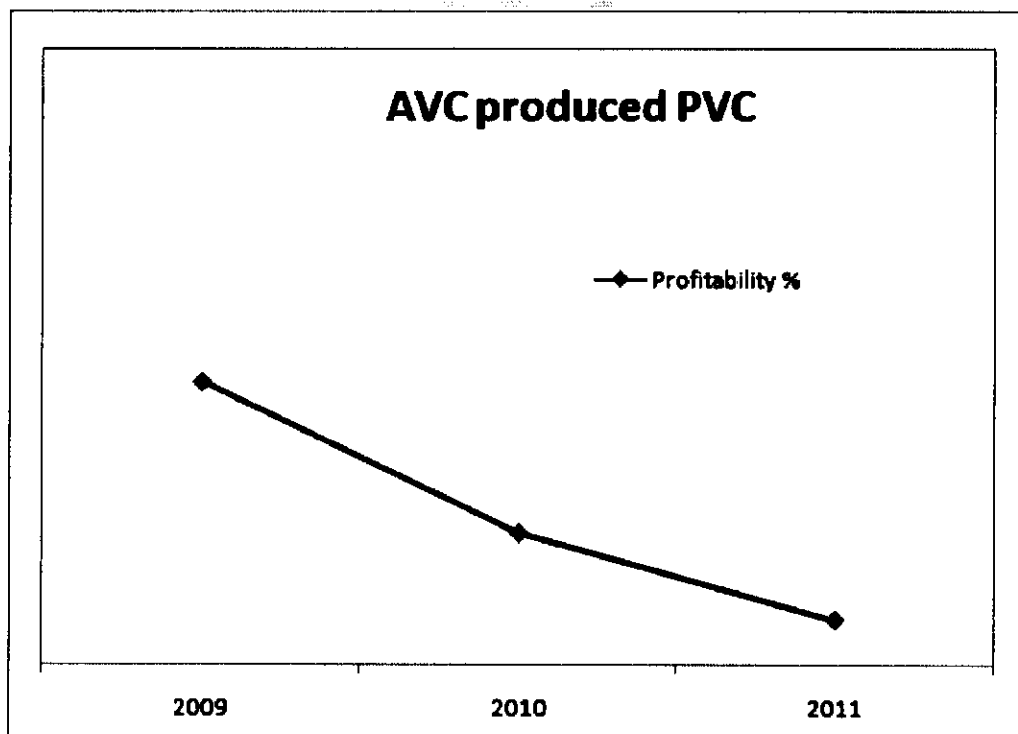
10.3 Revenue, profit and profitability effects

Movements in revenue and total profits are illustrated in the following chart.



Revenue increased from 2009 to 2010 before declining in 2011. Total profits have been decreasing since 2009.

Profitability is profit expressed as a percentage of revenue.



Australian Vinyls continued to trade unprofitably over the analysis period, with losses steadily increasing year on year.

10.4 Summary of major injury indicators

Injury factors indicate that the economic performance of the Australian industry has deteriorated from 2009 to 2011. Profits and profitability have declined from 2009 as costs rose above prices. Revenues have shown a slight decline from 2010 to 2011 whilst volumes appear to reflect the plant is running at close to capacity. However production volumes in December 2011 and into January 2012 were at levels 50% below previous years for the same period.

10.5 Other injury indicators

Australian Vinyls provided an updated appendix A 7 summarising other injury indicators from 2009 to 2011.

Of these factors return on investment shows a decline from 2009 to 2011, revenues have decreased as noted and stock holdings after declining in 2010 have increased in 2011.

Data relating to the analysis of the economic condition of Australian Vinyls is at **confidential appendix 1**.

Information on pricing, production, sales and the market provided by Australian Vinyls for the investigation into the alleged dumping of PVC from Korea is at **confidential attachment Kor 1**.

11 INJURY AND CAUSATION

Australian Vinyls claimed in its application that in 2011 Korean exports to Australia steeply increased and have been at dumped prices that have undercut the Australian Vinyls prices and caused a deterioration of profit and profitability as Australian Vinyls has reduced its selling prices in response to the dumped imports. Australian Vinyls also claimed that in 2011 it has experienced volume and market share injury that can be attributed to the increased volume of Korean PVC exports to Australia.

11.1 Injury

Australian Vinyls said in its application that it has operated its plant at close to optimal rates and has been able to maintain production costs at relatively stable levels in 2011, however, it has experienced price depression in 2011.

Australian Vinyls claimed it was able to recover a proportion of cost increases in 2010 through slightly higher selling prices in 2010 (when contrasted with 2009 selling prices), however, in 2010, its selling prices declined, whereas costs slightly increased, further widening the gap between costs and selling prices to its disadvantage.

Australian Vinyls claimed it was therefore able to demonstrate that it has experienced price suppression injury in 2011 as its prices have declined (to levels below that achieved in 2009) as production costs increased.

Australian Vinyls also claimed that the decline in its selling prices has also contributed to a reduction in its domestic sales revenues and that in 2011 revenues were lower than achieved in 2010.

Australian Vinyls further claimed that its profit and profitability has deteriorated further to 2011 and that further losses are expected in 2012 (to flow from the price undercutting at lower price levels from Korean exports to Australia). Australian Vinyls noted that reduced revenues and lower profits and profitability have also contributed to a reduction in its Return on Investment.

Australian Vinyls states that the actual loss on domestic sales of [REDACTED] million in 2011 was [REDACTED] – an amount that is significant and considered “material” when contrasted with returns achieved in 2009 and 2010.

11.2 Causation

In its application Australian Vinyls claimed that increasing PVC exports to Australia by LG Chemicals (LG Chem) of Korea have displaced PVC exports from other source countries (e.g. Taiwan and Thailand). Australian Vinyls said that this has been achieved through Free-into-Store (“FIS”) prices that have undercut FIS prices from other suppliers (i.e. Australian Vinyls and other imports).

Australian Vinyls said that following the expiration of anti-dumping measures on PVC exported from Korea in March 2010, one of Korea's two PVC producers, LG Chem, dramatically increased export volumes to Australia.

Australian Vinyls claimed that LG Chem is targeting exporting 30,000 tonnes per annum to Australia and that in 2011, it is understood that LG Chem exported in excess of 22,000 tonnes to Australia – having made strong inroads to achieving its projected target.

Australian Vinyls claims that the dramatic growth in LG Chem's exports to Australia has only been achievable by exporting at dumped prices and undercutting Australian industry selling prices. Australian Vinyls said it has responded to selling prices offered by LG Chem across its customer range and reduced its own prices to retain volumes.

Australian Vinyls included in its application confidential Customer Information detailing discussions with a number of individual customers. Australian Vinyls claimed that the documents demonstrated that its PVC selling price has commonly been undercut by up to 8 per cent in most instances and that the documents indicate that LG Chem's selling prices are the lowest price available in the marketplace and that where Australian Vinyls had reduced its price to remain competitive, LG Chem would respond with a further price reduction.

Australian Vinyls also said that from 2008 its major customers, [REDACTED], [REDACTED], had been a [REDACTED] price based on [REDACTED]. However from June 2011 [REDACTED] had moved off the [REDACTED] and started taking Korean imports and asking Australian Vinyls to match the import prices.

Australian Vinyls provided copies of price offers for its [REDACTED] largest customers, [REDACTED], [REDACTED], [REDACTED] and [REDACTED] for each month of the investigation period. These price offers are at confidential attachment Caus 1.

Australian Vinyls believed that Korean exports had been displaced from their traditional markets by the low priced USA exports and that Korean exporters were seeking new markets in Australia.

Australian Vinyls said that Korean imports into Australia were subject to the general 5% duty and would need to be dumped to compete with exports from Thailand which were not subject to the 5% duty.

12 UNSUPPRESSED SELLING PRICE

Customs and Border Protection generally derives the non-injurious price by first establishing a price at which the applicant might reasonably sell its product in a market unaffected by dumping. This price is referred to as the unsuppressed selling price (USP). Having calculated the unsuppressed selling price, Customs and Border Protection then calculates a non-injurious price by deducting the costs incurred in getting the goods from the export FOB point (or another point if appropriate) to the relevant level of trade in Australia. The deductions normally include overseas freight, insurance, into-store costs and amounts for importer expenses and profit.

Australian Vinyls said that its prices from 2008 had been affected by other factors such as construction demand, the drought, floods and the global financial crisis as noted at section 6.2. Australian Vinyls also did not consider the prices of other imports in the market as an appropriate reference as these prices would have been affected by the allegedly dumped imports from Korea.

Australian Vinyls said that a USP based on CTMS plus the level of profit it achieved in 2007 may be appropriate, however it also said that this profit had been distorted by a large one off depreciation item in June 2007 that needed to be taken into account. Documents relating to the item in 2007 are at confidential attachment USP 1.

Australian Vinyls provided a submission to the current review of anti-dumping measures for PVC from Japan and the USA, a copy of the submission is at confidential attachment USP 2. A non confidential copy of the submission was placed on the public record for the review and continuation.

In that submission Australian Vinyls proposed a USP calculated from Australian Vinyls CTMS plus a level of profit it achieved across the 2006 and 2007 financial years. Australian Vinyls submitted that the profit for 2007 should be adjusted to exclude the June quarter due to a large once off write down. Australian Vinyls profit for 2005/06 was [REDACTED]%, adjusted profit for 2006/07 was [REDACTED]% and average profit for 2006 and 2007 was [REDACTED]% on selling price.

The profit of [REDACTED]% grossed up to be applied to the CTMS for the USP is [REDACTED]%.

13 GENERAL COMMENTS

Australian Vinyls stated that it had experienced difficulties with falling demand in the domestic market over the period since 2008. The end of the drought across Eastern Australia prompted the government to terminate plans to use PVC piping to pipe water across the country to major capital cities to ease concerns over water security. In addition, heavy flooding across the Eastern seaboard had prevented the laying of PVC pipes.

Australian Vinyls also pointed to falling demand for PVC from the housing construction market across Victoria, New South Wales and Queensland for deteriorating market conditions.

Australian Vinyls highlighted PVC pipe product development which is being engineered to become more light weight resulting in a reduction in volumes of PVC resin used in pipe production as a further factor which is suppressing demand.

Australian Vinyls commented that due to the falling domestic demand the volume of imported product it imports to supplement supply has decreased. In the past Australian Vinyls had the option of reducing import volumes should overall demand decrease, however this buffer is no longer an available option.

Despite this contraction in demand, Australian Vinyls said that the Australian market for PVC in 2011 remains at the circa 190,000 tonnes level. Contrary to suggestions of a decline in demand, Korean PVC exports to Australia increased from negligible levels in early 2010 to approximately 22,000 tonnes in 2011. This sudden growth in imports from Korea demonstrates that the demand for low-priced PVC (i.e. at dumped prices) is feverish when a price-advantage is available to customers.

Separately, Australian Vinyls highlighted that it has undertaken product development to meet customers' () expectations to create a green star compliant PVC resin for use in green star buildings. Australian Vinyls also noted that it had developed a locally produced grade of PVC in conjunction with () to replace the imported PVC it used to use.

Australian Vinyls stated green star compliant products are currently not available through imported sources.

14 ATTACHMENTS AND APPENDIX

Non-confidential attachment G-1	Technical data sheets Corvic PVC
Confidential Appendix 1	Data for Australian Vinyls economic condition
Confidential attachment Kor 1	Production, pricing, sales, market data and presentations
Confidential attachment Caus 1	Price Offers
Confidential attachment sales 1	Reconciliation of sales of domestic production
Confidential attachment sales 2	Manacol statements
Confidential attachment sales 3	Rebates
Confidential attachment sales 4	Selected sales and rebates transactions
Confidential attachment imports 1	Selected import documents
Confidential attachment costs 1	VCM standard cost
Confidential attachment costs 2	VCM PPV tracking sheet
Confidential attachment costs 3	Stock reports
Confidential attachment costs 4	VCM and shipping invoices and payments
Confidential attachment costs 5	Cost centres reports
Confidential attachment costs 6	Wages and salaries
Confidential attachment USP 1	Explanation for 2007 one off expense
Confidential attachment USP 2	USP submission

Technical Data Sheet



Australian Vinyls Corporation Pty Ltd

Corvic® Vinyl

Grade

57R1

Major End Use

INJECTION MOULDING

Description

'Corvic' 57R1 is a low molecular weight vinyl suspension homopolymer. It is a free flowing white powder that can be delivered in a range of pack types. To allow the resin to be processed and to achieve the desired properties in the end product, the powder must be mixed with other additives. These may include stabilisers, lubricants, processing aids, fillers, pigments and other property modifiers.

'Corvic' 57R1 is designed for injection and blow moulding of rigid vinyl products and for the inner core of foam core pipe.

Applications

Rigid products such as injection moulded fittings for pipe and conduit. Blow moulding of high clarity bottles. Inner core for foam core pipe. This resin may also be used to make extruded profiles requiring a low melt viscosity, foamed extrusions such as vinyl cladding and rigid calendered sheet.

Specifications

Conforms to the requirements of International Standards for use in contact with food.

Corvic® is produced at Australian Vinyls Corporation Pty Ltd's plant at Laverton.
Australian Vinyls Corporation Pty Ltd ABN 15 078 558 595 is an ISO 9001 Quality Endorsed Company

Technical Data Sheet



Australian Vinyls Corporation Pty Ltd

57R1

INJECTION MOULDING

Physical Properties

Property	Test Method	Value	Units
K Value	ISO 1628-2	57.2	-
Total Volatile Matter	Loss of Mass : 135°C / 20 mins	0.10	% w/w
Particle Size > 250 µm	Laser diffraction	2.0	%
< 80 µm		5.0	%
Apparent Density	ISO 60	620	g/l
Cold Plasticiser Absorption	ISO 4608	15.0	% w/w
Residual Vinyl Chloride Monomer content	ISO 6401	< 1.0	ppm

Safety

Refer to the Australian Vinyls Material Safety Data Sheet for 'Corvic' Vinyl.

Also refer to the booklet "Guide to the Safe Handling of PVC Resin Supplied by Australian Vinyls".

All information contained in the Technical Data Sheet is as accurate and up to date as possible. Since Australian Vinyls cannot anticipate or control the conditions under which this information and its products may be used, each user should review the information in the specific context of the intended application. Australian Vinyls will not be responsible for damages of any nature resulting from the use of or reliance upon the information. No expressed or implied warranties are given other than those implied mandatorily by Commonwealth, State or Territory legislation.

Values quoted for properties of 'Corvic' Vinyls are the result of tests on representative samples, and the product supplied may not confirm in all respects. 'Corvic' is a Registered Trade Mark of Australian Vinyls.

Corvic® is produced at Australian Vinyls Corporation Pty Ltd's plant at Laverton.
Australian Vinyls Corporation Pty Ltd ABN 15 078 558 595 is an ISO 9001 Quality Endorsed Company

Technical Data Sheet



Australian Vinyls Corporation Pty Ltd

Corvic®

Vinyl

Grade
62R2

Major End Use
RIGID EXTRUSION

Description

'Corvic' 62R2 is a medium-low molecular weight vinyl suspension homopolymer. It is a free flowing white powder that can be delivered in a range of pack types. To allow the resin to be processed and to achieve the desired properties in the end product, the powder must be mixed with other additives. These may include stabilisers, lubricants, processing aids, fillers, pigments and other property modifiers.

'Corvic' 62R2 is designed for the extrusion of rigid vinyl products and may result in higher output rates than 'Corvic' 67R2.

Applications

Rigid products such as extruded profiles and non pressure pipe. The low melt viscosity of this grade aids in the manufacture of complex extruded shapes.

The resin may also be used for the injection moulding of rigid fittings.

It is not recommended for flexible applications.

Specifications

Conforms to the requirements of International Standards for use in contact with food.

Corvic® is produced at Australian Vinyls Corporation Pty Ltd's plant at Laverton.
Australian Vinyls Corporation Pty Ltd ABN 15 078 558 595 is an ISO 9001 Quality Endorsed Company

Technical Data Sheet



Australian Vinyls Corporation Pty Ltd

62R2 RIGID EXTRUSION

PHYSICAL PROPERTIES

Property	Test Method	Value	Units
K Value	ISO 1628-2	62.0	
Total Volatile Matter	Loss of Mass : 135°C / 20 mins	0.10	% w/w
Particle Size > 250 µm	Laser diffraction	8.0	%
< 80 µm		3.0	%
Apparent Density	ISO 60	605	g/l
Cold Plasticiser Absorption	ISO 4608	18.0	% w/w
Residual Vinyl Chloride Monomer content	ISO 6401	< 1.0	ppm

Safety

Refer to the Australian Vinyls Material Safety Data Sheet for 'Corvic' Vinyl.

Also refer to the booklet "Guide to the Safe Handling of PVC Resin Supplied by Australian Vinyls".

All information contained in the Data Sheet is as accurate and up to date as possible. Since Australian Vinyls cannot anticipate or control the conditions under which this information and its products may be used, each user should review the information in the specific context of the intended application. Australian Vinyls will not be responsible for damages of any nature resulting from the use of or reliance upon the information. No expressed or implied warranties are given other than those implied mandatorily by Commonwealth, State or Territory legislation.

Values quoted for properties of 'Corvic' Vinyls are the result of tests on representative samples, and the product supplied may not confirm in all respects. 'Corvic' is a Registered Trade Mark of Australian Vinyls.

Corvic® is produced at Australian Vinyls Corporation Pty Ltd's plant at Leverton.
Australian Vinyls Corporation Pty Ltd ABN 15 078 558 595 is an ISO 9001 Quality Endorsed Company

Technical Data Sheet



Australian Vinyls Corp

Corvic®

Vinyl

Grade

66R1 & 66R2

Major End Use

RIGID EXTRUSION

Description

'Corvic' 66R1 is a medium molecular weight vinyl suspension homopolymer. It is a free flowing white powder that can be delivered in a range of pack types. To allow the resin to be processed and to achieve the desired properties in the end product, the powder must be mixed with other additives. These may include stabilisers, plasticisers, lubricants, processing aids, fillers, pigments and other property modifiers.

'Corvic' 66R1 is designed for the extrusion of unplasticised vinyl products.

Applications

Rigid products such as pressure and non-pressure pipe, conduit, and many types of profiles, including rigid vinyl siding.

The resin is not recommended for flexible applications.

Specifications

Conforms to the requirements of International Standards for use in contact with food.

Corvic® is produced at Australian Vinyls Corporation Pty Ltd's plant at Laverton.
Australian Vinyls Corporation Pty Ltd ABN 15 078 558 595 is an ISO 9001 Quality Endorsed Company

Technical Data Sheet

**Australian Vinyls Corp****66R1 & 66R2**

RIGID EXTRUSION

PHYSICAL PROPERTIES

Property	Test Method	Value	Units
K Value	ISO 1628-2	66	-
Total Volatile Matter	Loss of Mass : 135°C / 20 mins	0.1	% w/w
Particle Size > 250 µm < 80 µm	Laser diffraction	4 2	µm
Apparent Density	ISO 60	600	g/l
Cold Plasticiser Absorption	ISO 4608	20	% w/w
Residual Vinyl Chloride Monomer content	ISO 6401	< 1	ppm

Safety

Refer to the Australian Vinyls Material Safety Data Sheet for 'Corvic' Vinyl.

Also refer to the booklet "Guide to the Safe Handling of PVC Resin Supplied by Australian Vinyls".

All information contained in the Data Sheet is as accurate and up to date as possible. Since Australian Vinyls cannot anticipate or control the conditions under which this information and its products may be used, each user should review the information in the specific context of the intended application. Australian Vinyls will not be responsible for damages of any nature resulting from the use of or reliance upon the information. No expressed or implied warranties are given other than those implied mandatorily by Commonwealth, State or Territory legislation.

Values quoted for properties of 'Corvic' Vinyls are the result of tests on representative samples, and the product supplied may not confirm in all respects. 'Corvic' is a Registered Trade Mark of Australian Vinyls.

Corvic® is produced at Australian Vinyls Corporation Pty Ltd's plant at Laverton.
Australian Vinyls Corporation Pty Ltd ABN 15 078 558 595 is an ISO 9001 Quality Endorsed Company

Technical Data Sheet



Australian Vinyls Corporation Pty Ltd

Corvic® Vinyl

Grade

67F1

Major End Use

EXTRUSION

Description

'Corvic' 67F1 is a medium molecular weight vinyl suspension homopolymer. It is a free flowing white powder that can be delivered in a range of pack types. To allow the resin to be processed and to achieve the desired properties in the end product, the powder must be mixed with other additives. These may include stabilisers, plasticisers, lubricants, processing aids, fillers, pigments and other property modifiers.

'Corvic' 67F1 is designed to absorb plasticiser in quantities commonly used to manufacture flexible vinyl products.

Applications

Flexible products such as injection moulded electrical plugs and footwear, semi-rigid automotive trims, calendered sheet, vinyl flooring and many types of flexible profiles. Can also be used for extrusion of rigid products.

Specifications

Conforms to the requirements of International Standards for use in contact with food.

Corvic® is produced at Australian Vinyls Corporation Pty Ltd's plant at Laverton.
Australian Vinyls Corporation Pty Ltd ABN 15 078 558 595 is an ISO 9001 Quality Endorsed Company

Technical Data Sheet



Australian Vinyls Corporation Pty Ltd

67F1

EXTRUSION

PHYSICAL PROPERTIES

Property	Test Method	Value	Units
K Value	ISO 1628-2	67.0	-
Total Volatile Matter	Loss of Mass : 135°C / 20 mins	0.10	% w/w
Particle Size > 250 µm < 80 µm	Laser diffraction	2.0 5.0	% %
Apparent Density	ISO 60	545	g/l
Cold Plasticiser Absorption	ISO 4608	28.0	% w/w
Residual Vinyl Chloride Monomer content	ISO 6401	< 1.0	ppm

Safety

Refer to the Australian Vinyls Material Safety Data Sheet for 'Corvic' Vinyl.

Also refer to the booklet "Guide to the Safe Handling of PVC Resin Supplied by Australian Vinyls".

All information contained in the Data Sheet is as accurate and up to date as possible. Since Australian Vinyls cannot anticipate or control the conditions under which this information and its products may be used, each user should review the information in the specific context of the intended application. Australian Vinyls will not be responsible for damages of any nature resulting from the use of or reliance upon the information. No expressed or implied warranties are given other than those implied mandatorily by Commonwealth, State or Territory legislation.

Values quoted for properties of 'Corvic' Vinyls are the result of tests on representative samples, and the product supplied may not confirm in all respects. 'Corvic' is a Registered Trade Mark of Australian Vinyls.

Corvic® is produced at Australian Vinyls Corporation Pty Ltd's plant at Laverton.
Australian Vinyls Corporation Pty Ltd ABN 15 078 558 595 is an ISO 9001 Quality Endorsed Company

Technical Data Sheet



Australian Vinyls Corporation Pty Ltd

Corvic®

Vinyl

Grade

71F1

Major End Use

FLEXIBLES

Description

'Corvic' 71F1 is a high molecular weight vinyl suspension homopolymer. It is a free flowing white powder that can be delivered in a range of pack types. To allow the resin to be processed and to achieve the desired properties in the end product, the powder must be mixed with other additives. These may include stabilisers, plasticisers, lubricants, processing aids, fillers, pigments and other property modifiers.

'Corvic' 71F1 is designed to absorb plasticiser in quantities commonly used to manufacture flexible vinyl products.

Applications

Flexible products such as insulation and sheathing of electrical cable, garden and industrial hose, clear tubing, calendered sheet, packaging film, automotive trim, window glazing gaskets, medical products and footwear.

Specifications

Conforms to the requirements of International Standards for use in contact with food.

Corvic® is produced at Australian Vinyls Corporation Pty Ltd's plant at Laverton.
Australian Vinyls Corporation Pty Ltd ABN 15 078 558 595 is an ISO 9001 Quality Endorsed Company

Technical Data Sheet



Australian Vinyls Corporation Pty Ltd

71F1

FLEXIBLES

PHYSICAL PROPERTIES

Property	Test Method	Value	Units
K Value	ISO 1628-2	71.0	-
Total Volatile Matter	Loss of Mass : 135°C / 20 mins	0.10	% w/w
Particle Size > 250 µm < 80 µm	Laser diffraction	2.0 5.0	% %
Apparent Density	ISO 60	520	g/l
Volume Resistivity	ISO 3915	1.2	Ohm.cm x 10 ¹⁴
Cold Plasticiser Absorption	ISO 4608	29.0	% w/w
Residual Vinyl Chloride Monomer content	ISO 6401	< 1.0	ppm

Safety

Refer to the Australian Vinyls Material Safety Data Sheet for 'Corvic' Vinyl.

Also refer to the booklet "Guide to the Safe Handling of PVC Resin Supplied by Australian Vinyls".

All information contained in the Data Sheet is as accurate and up to date as possible. Since Australian Vinyls cannot anticipate or control the conditions under which this information and its products may be used, each user should review the information in the specific context of the intended application. Australian Vinyls will not be responsible for damages of any nature resulting from the use of or reliance upon the information. No expressed or implied warranties are given other than those implied mandatorily by Commonwealth, State or Territory legislation.

Values quoted for properties of 'Corvic' Vinyls are the result of tests on representative samples, and the product supplied may not confirm in all respects. 'Corvic' is a Registered Trade Mark of Australian Vinyls.

Corvic® is produced at Australian Vinyls Corporation Pty Ltd's plant at Laverton.
Australian Vinyls Corporation Pty Ltd ABN 15 078 558 595 is an ISO 9001 Quality Endorsed Company