

## EXECUTIVE SUMMARY

This is an application by Crane Group Limited (**Crane**) an Australian company listed on the Australian Stock Exchange, or any interconnected body corporate of Crane, seeking clearance to acquire up to 100% of the shares in or assets of RX Plastics Limited (**RX Plastics**) and/or of any interconnected body corporate of RX Plastics (the **Acquisition**).

The Acquisition will not substantially lessen competition in any New Zealand market.

## PROPOSED TRANSACTION

Crane considers the Acquisition provides potential for it to enhance its competitive offering by offering additional products (thereby increasing competition in those segments) and by achieving operational synergies and production economies of scale and scope in its existing product lines.

Accordingly, the rationale for the purchase of RX Plastics is fourfold:

- (i) The Acquisition broadens Crane's current market offering and enhances its competitive offering in the Rural & Irrigation sector. Post-acquisition, Iplex will be able to offer RX Plastics' current portfolio of products via the addition of the following products it does not currently supply in Australasia:
  - Tanks and Troughs;
  - Pod irrigation; and
  - PE fittings, valve fittings and related components.
- (ii) The Acquisition allows Crane to enter new markets via the addition of RX Plastics' Rotomoulding business which encompasses:
  - Drums, bins and barrels; and
  - Septic tanks and waste treatment systems.
- (iii) [ ]
- (iv) By adding additional capacity, a broader product base and providing potential production and operations synergies.

## RELEVANT MARKET

Crane believes the relevant market in which to examine the Acquisition is the New Zealand market for the supply of pipe systems. Any market narrower than this would overlook the extensive opportunity for substitution between products. Such substitution would render any *ssnip* over PVC pipes, or plastic pipes, to be a wholly unprofitable strategy.

Product substitutability is a key feature of the New Zealand pipeline systems market. Indeed, plastics such as PVC and PE were developed as substitutes for the more traditional pipeline materials such as concrete, copper, clay and ductile iron. Over time more sophisticated forms of plastics such as mPVC, OPVC, PB and PEX have substituted not only for more traditional materials but also for older plastic technologies such as uPVC and PE.

Manufacturers of traditional products have not sat idle. To combat this loss of market share the traditional material suppliers have introduced new or revamped technologies such as Roller Compacted Concrete Pipes (RCP), glass or fibre reinforced pipes and K7 ductile iron which are more material efficient and lower cost than plastic pipes. This market process will continue – Crane expects emerging materials technologies such as carbon fibre and nano technology will also find applications in the pipeline systems markets.

Key substitute products for PVC/PE pipes include steel, ductile iron, FRP and GRP. A recent example of the substitutability of these products is a government authority choosing steel for a large construction process in place of other products including PVC. This is indicative of the majority of cases where the customer is able to choose from a range of suitable products to satisfy their particular requirement.

The table below provides an overview of the applications in which each of the existing pipeline materials can be used.

Product substitutability by material and application					
Materials	Plumbing	Irrigation	Civil	Mining & Industrial	Telco & Electrical
PVC	√	√	√	√	√
PE/PP	√	√	√	√	√
Steel & DI	√	√	√	√	
PB/PEX/PPR	√				
Concrete		√	√	√	

Product substitutability by material and application					
Materials	Plumbing	Irrigation	Civil	Mining & Industrial	Telco & Electrical
FRC		√	√	√	
Clay			√		
Copper	√				
GRP		√	√	√	
ABS	√	√	√	√	

### ACQUISITION WILL NOT SUBSTANTIALLY LESSEN COMPETITION IN ANY MARKET

The Acquisition will result in only relatively minor horizontal market share aggregation. Crane's share of the pipes system segment would increase by [ ]%. Crane will remain constrained by competition from other manufacturers in the pipes market and this minor aggregation is unlikely to have a material impact on the nature of competition in the market.

Post-acquisition Crane will remain constrained by:

#### (a) Large and Powerful Competitors

There are a material number of large companies supplying to the market, including large multinational corporations. These large participants include:

##### *Interpipe*

Interpipe Holdings is a 50/50 joint venture between Fletcher Concrete & Infrastructure Ltd and Hynds Ltd. Fletchers and Hynds own New Zealand's two major concrete pipe manufacturing operations and their JV business manufactures solid wall and corrugated PE pipe. Their merchant reselling businesses, Humes Pipe Systems and Hynds Pipe Systems, currently source and supply PVC and PE pipe from all the major New Zealand plastic pipe manufacturers. There would be no limitation or barrier to Interpipe expanding its product range to include those supplied by the merged entity.

##### *Vinidex*

Vinidex is the 2<sup>nd</sup> largest manufacturer of PVC and PE pipes and fittings in Australia and is also supplying to New Zealand markets. There is no constraint on Vinidex increasing supply into New Zealand.

*Marley*

Marley is owned by New Zealand Investment Holdings Ltd, a subsidiary of Aliaxis S.A., a private company registered in Belgium. Marley is the 2<sup>nd</sup> largest manufacturer of PVC & PE pipe in New Zealand and the only New Zealand manufacturer of PVC fittings and rainwater systems.

*Tyco*

Tyco Water is part of the Tyco International Group. The New Zealand operation includes ductile iron pipe, valve and fitting distribution, irrigation design supply & installation, and the operation of a large bore PE pipe extrusion plant in Hamilton (formerly Prebensen Pipelines).

Post-Acquisition Crane will be constrained by these large and powerful companies competing in the pipeline systems market in New Zealand. Their presence and their potential to expand quickly ensures that there would be no reduction in competition within the New Zealand pipeline systems industry. Accordingly, a merged entity would be constrained from increasing prices, decreasing quality or decreasing service.

**(b) Imports and Potential Imports**

The total value of imports servicing the New Zealand pipeline systems market is currently around NZ\$[ ] million. This represents [ ]% of the total pipeline systems market. Due to freight economics, imports of pipeline systems have typically focused on valves and fittings of all sizes and smaller diameter pipe. Since 2003, imports of plastic pipes of all varieties have increased materially: imports of PVC pipes have increased by [ ]%, PVC fittings by [ ] times their 2003 level, and other plastics by [ ] times.

Imports will continue to exert significant influence over the fittings sector of the market.

**(c) Low Barriers to Entry and Expansion**

As the Commission has previously recognised, there are low barriers to entry, particularly in the plastic pipe sector of the pipeline systems market. Nothing has changed which should alter this conclusion.

Indeed, the low barriers to entry in the pipeline systems market is well evidenced by the large number of small players participating in the market and the growth of new entrants over the last 4 years.

Accordingly, the potential for further entry and expansion will serve to constrain the merged entity.

**(d) Countervailing Power**

Within each market sector there are several large customers each with significant market strength. The existence of a range of large and powerful customers and the degree of product substitution available in the market together with the potential for rapid and extensive entry and expansion will provide customers with material countervailing power.

**No increased risk of tacit collusion or coordination**

In the face of the market characteristics outlined above, there is no reason to consider that the acquisition will result in any increased risk of tacit collusion or coordination.

# COMMERCE ACT 1986: BUSINESS ACQUISITION

## SECTION 66: NOTICE SEEKING CLEARANCE

Date: 20 February 2008

The Registrar

Market Structure Team

Commerce Commission

PO Box 2351

WELLINGTON

Pursuant to s66(1) of the Commerce Act 1986 notice is hereby given seeking **clearance** of a proposed business acquisition.

## PART I: TRANSACTION DETAILS

### 1. What is the business acquisition for which clearance is sought?

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1. Crane Group Limited (**Crane**), an Australian company listed on the Australian Stock Exchange, or any interconnected body corporate of Crane, seeks clearance to acquire up to 100% of the shares in or assets of RX Plastics Limited (**RX Plastics**)

### The Person Giving Notice

### 2. Who is the person giving this notice?

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2. This notice is given by Crane.
3. Crane requests that all correspondence is directed in the first instance to:

Bell Gully  
48 Shortland Street, Auckland  
Telephone: 09 916 8800  
Facsimile: 09 916 8801  
Attention: Phil Taylor/David Blacktop  
Email: phil.taylor@bellgully.com / david.blacktop@bellgully.com

### Confidentiality

### 3. Do you wish to request a confidentiality order for:

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#### 3.1 The fact of the proposed acquisition

4. No.

#### 3.2 Specific information contained in or attached to the notice?

5. Yes. Confidentiality is sought for information contained in bold square brackets in this application (i.e., [ ]).
6. The information that has been deleted is commercially sensitive and valuable information that is confidential to Crane. Disclosure of that information could result in material financial loss and prejudice to the competitive position of Crane. In this respect, Crane relies on section 9(2)(b) of the Official Information Act 1982. The

foregoing applies equally in respect of all additional information (expressed to be confidential) that Crane might provide to the Commission.

## Details of the Participants

### 4. Who are the participants (i.e. the parties involved)?

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7. The participants are Crane and RX Plastics:

Crane Group Limited	Level 14, 15 Blue Street North Sydney NSW 2060 Australia Attention: Mark Fitzgerald Finance Director
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RX Plastics	RX Plastics Limited PO Box 360 Ashburton New Zealand Attention: Company Secretary
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### 5. Who is interconnected to or associated with each participant?

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#### 5.1 Acquirer group/associates

8. Crane is an Australian company which is listed on the ASX. Its head office is in Sydney. Crane is a leading manufacturer and distributor of non-ferrous metal products and plastic pipeline systems and a major distributor of plumbing and electrical supplies in Australasia. Further details on Crane can be obtained from its website at [www.crane.com.au](http://www.crane.com.au).
9. Crane operates in both Australia and New Zealand and its customer base includes plumbing, industrial, building, mining, electrical, telecommunication, government, and rural industries.
10. Crane operates in New Zealand via its associate companies Iplex Pipelines New Zealand Pty Limited (**Iplex NZ**), Crane Distribution New Zealand Limited (**CDNZ**). A full organisation chart is attached as Annexure 1.



**Iplex**

11. Iplex Pipelines Pty Limited (**Iplex**) is a wholly owned subsidiary of Crane that manufactures and supplies plastic pipeline systems, glass fibre-reinforced plastic pipe and cast-iron fittings and valves in Australia. Iplex manufactures and supplies pipeline systems from 15mm up to 3000mm in diameter for a diverse range of applications including: Water Supply, Sewerage, Plumbing, Gas, Stormwater, Irrigation, Telecommunications, Electrical, Mining and Industrial. Through its associated company, Iplex NZ, Iplex manufactures and supplies similar products in New Zealand. Iplex NZ's annual gross sales are approximately NZ\$[ ] million ([ ]).
12. Iplex was formerly a joint venture company owned 75% by Crane and 25% by Wavin BV of the Netherlands (**Wavin**). Crane acquired Wavin's 25% share in Iplex in 2006.

**Crane Distribution New Zealand Limited**

13. CDNZ is a wholly owned subsidiary of Crane. CDNZ is a supplier of plumbing and electrical products (trading as MasterTrade, Corys, Mico Plumbing and Pipelines and Mico Bathrooms). Crane NZ has 126 branches throughout New Zealand. Iplex NZ sells some of its plastic pipes through the CDNZ network, which in turn sells these pipes and fittings to the plumbing trade and contractors.

**5.2 Target company group/associates**

**5.2.1 Identify all subsidiaries of the target company and all companies in which the target company or any subsidiary owns 10% or more of the shares**

14. RX Plastics is a privately owned New Zealand manufacturer of plastic pipe systems (PE and PVC) competing in the traditional pipeline systems market and the rotomoulded products market. Rotomoulded products are used for irrigation, water storage tanks and effluent disposal systems. It has manufacturing facilities in Tinwald, Ashburton and Horotiu, Hamilton. It distributes product throughout New Zealand and exports product to Australia, the Pacific Islands , USA and South Africa.
15. More information on RX Plastics can be obtained from <http://www.rxplastics.co.nz>.

**5.2.2 If any company owns over 10% of the shares in the "target company", and will continue to do so after the proposed**

*acquisition, then identify all of the interconnected bodies corporate of that company and all companies in which it or its interconnected bodies corporate own over 10% of the shares.*

16. There will be no such companies.

**6. Does any participant, or any interconnected body corporate thereof, already have a beneficial interest in, or is it beneficially entitled to, any shares or other pecuniary interest in another participant?**

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17. No.

**7. Identify any links, formal or informal, between any participant/s including interconnected bodies corporate and other persons identified at paragraph 5 and its/their existing competitors in each market.**

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18. CDNZ currently purchases approximately NZ\$[ ] of product from RX Plastics, [ ].

**8. Do any directors of the 'acquirer' also hold directorships in any other companies which are involved in the markets in which the target company/business operates?**

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19. No.

**9. What are the business activities of each participant?**

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20. See response to Question 5 above.

**10. What are the reasons for the proposal and the intentions in respect of the acquired or merged business?**

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21. Crane considers the Acquisition provides potential for it to enhance its competitive offering by offering additional products (thereby increasing competition in those

segments) and by achieving operational synergies and production economies of scale and scope in its existing product lines.

22. Accordingly, the rationale for the purchase of RX Plastics is four fold:

(a) The Acquisition broadens Iplex NZ's current market offering and enhances its competitive offering in the Rural & Irrigation sector. Post-acquisition, Iplex NZ will be able to offer RX Plastics' current portfolio of products via the addition of the following products it does not currently supply in Australasia:

(i) Tanks and Troughs;

(ii) Pod irrigation; and

(iii) PE fittings, valve fittings and related components.

(b) The Acquisition allows Crane to enter new markets via the addition of RX Plastics' Rotomoulding business which encompasses:

(i) Drums, bins and barrels; and

(ii) Septic tanks and waste treatment systems.

(c) [

.]

(d) By adding additional capacity, a broader product base and providing potential production and operations synergies.

## PART II: IDENTIFICATION OF MARKETS AFFECTED

### Horizontal Aggregation

#### **11. Are there any markets in which there would be an aggregation of business activities as a result of the proposed acquisition?**

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23. The Acquisition will result in aggregation between Crane's and RX Plastics' pipe manufacturing businesses. The Commission has previously considered the relevant markets in which Crane and RX Plastics compete:
- (a) In Decision 405 (*Etex Holdings B.V./ Keyplas Limited*) the Commission considered the impact of that acquisition on the market for the manufacture/wholesale supply of PVC pipe systems in New Zealand. However, the Commission accepted this definition was conservative noting that in all but one end-use application, PVC pipes were substitutable for other products e.g., PE, concrete, steel, clay etc.
  - (b) Similarly in its Investigation Report regarding Iplex's acquisition of Keyplas the Commission continued to define a market for the supply of PVC pipe systems in New Zealand.
24. The Commission's previous approach is in contrast to the ACCC's approach which has been to define a market for the manufacture and supply of plastic pipes and fittings including both PE and PVC pipe systems.
25. The Commission's narrow and conservative PVC market in Decisions 405 and in the Iplex/Keyplas investigation was based on the fact that those acquisitions resulted in aggregation in the PVC pipe systems segment of the market only, and because of its view that PVC had a particular niche segment of the pipe market (household waste water) almost exclusively to itself.<sup>1</sup>
26. Crane's view is that a PVC or a plastic pipe systems market definition is overly narrow. The relevant market is the New Zealand market for the manufacture and supply of pipeline systems. In Crane's view, there is considerable scope for both consumers and manufacturers to substitute between a variety of different pipe materials. Pipeline systems can be manufactured from a wide range of materials such as:

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<sup>1</sup> Decision 405, paragraph 44.

- PVC;
  - Polyethylene (**PE**);
  - Polypropylene (**PP**);
  - Polybutylene (**PB**);
  - Cross linked PE (**PEX**);
  - iron;
  - steel;
  - concrete;
  - vitreous clay;
  - copper; and
  - Fibre reinforced plastic.
27. Any attempt by the merged entity to impose a *ssnip* would result in non-PVC manufacturers commencing the manufacture and supply of PVC pipe and fittings as well as merchants and other consumers switching manufacturer or product.
28. Over the past 30 years, PVC plastic pipes and fittings have replaced, to some extent, traditional materials such as concrete, copper, clay, ductile/cast iron and galvanised iron. PVC pipes have been increasingly used relative to traditional materials because they are easy to use and cost competitive. However, to combat their loss of market share, traditional material manufacturers have been steadily introducing a broad range of new or revamped products such as K7 Ductile iron and Roller Compacted Concrete Pipes as well as plastic coated steel and plastic lined concrete to replicate performance attributes of PVC and PE pipe. The introduction of these products seek to undermine the competitive advantages such as ease of use and cost competitiveness enjoyed by plastic manufacturers.
29. In addition, innovative changes in installation practices in the building and civil construction industries have encouraged the development of new products made from substitute materials. An example is the use of imported PE pipes and fittings for vacuum sewerage and storm water systems in high rise buildings.
30. Furthermore, with the increasing trend towards environmentally friendly construction, there is a trend away from raw materials perceived as less environmentally friendly. This has seen some customers avoid using PVC which is not regarded as environmentally friendly. For example, organisations such as the New Zealand Green

Building Council are promoting environmentally friendly construction and as such have exercised PVC minimisation clauses (refer GreenStar NZ design tool RC3, PVC minimisation clause “Mat 7”) resulting in the substitution away from PVC pipe in commercial construction.

31. As a result of these developments, there is now an even more significant degree of product substitutability in the New Zealand pipelines industry than was the case when the Commission last considered these markets. Product switching is more common among consumers than was recognised by the Commission in Decision 405. Attached as Annexure 2 is a schedule that sets out for each pipe product the:
- New Zealand manufacturers;
  - New Zealand importers;
  - substitute products and the New Zealand manufacturers and importers of those products; and
  - potential substitute products.
32. Annexure 2 illustrates that for any particular end-use there are substitutable products for PVC pipes. Crane estimates that the total pipeline systems market in New Zealand is NZ\$[ ] million per annum. Table 1 sets out the various shares of materials in that market.

**Table 1 - Value by material**

<b>Material</b>	<b>Value NZ\$ (000)</b>	<b>Market share</b>
PVC	[ ]	[ ]%
PE / PP	[ ]	[ ]%
Ductile Iron/Steel	[ ]	[ ]%
Concrete	[ ]	[ ]%
Hot/cold water systems (PB/PEX/PPR)	[ ]	[ ]%
Vitreous Clay	[ ]	[ ]%
Copper	[ ]	[ ]%
GRP	[ ]	[ ]%
Other	[ ]	[ ]%
<b>TOTAL</b>	<b>[ ]</b>	<b>100%</b>

**Source:** Crane estimates

33. Manufacturers in the pipe systems market supply to a range of market segments, which include:
- Building/Plumbing Sector – products used by plumbers and builders in the construction of houses and commercial and industrial buildings supplied through plumbing and building merchants such as Plumbing World, Plumbing Plus, Placemakers, Mitre 10, Bunnings, Mico Plumbing, and MasterTrade.
  - Civil/Infrastructure Sector – products used by civil engineering construction firms, government bodies, local councils, water authorities and land developers in developing civil infrastructure. This is usually pipe used outside the boundary of all buildings. The principal end-users in this market segment are contractors who obtain PVC and pipe from distributors such as Hynds, Tyco, Humes and Mico.
  - Telecommunications Sector – products used in the provision of telecommunications and electrical energy services and infrastructure.
  - Rural/Irrigation Sector – products used for irrigation purposes and farm water supplies. Customers are rural supplies merchants such as Farmlands, CRT, PGG-Wrightsons, RD1, distributors such as Humes, Hynds and Mico, and irrigation companies..
34. The relative size of each market segment is estimated in Table 2.

**Table 2 - Value by market segment**

Sector	Value (NZ\$m)	Share
Building / Plumbing	[ ]	[ ]%
Civil / Infrastructure	[ ]	[ ]%
Telecommunications	[ ]	[ ]%
Rural/Irrigation	[ ]	[ ]%
<b>TOTAL</b>	[ ]	<b>100%</b>

**Source:** Crane estimates

35. Annexure 2, Table 1 and Table 2 illustrate that there is overlap between products and indicates consumers would certainly switch in response to a sustained relative price change of 5-10%.
36. Crane notes that the Commission's previous view that there is a PVC pipes market was because PVC pipe and fittings was used almost exclusively for household waste

water plumbing. In Crane's view, this does not provide a basis for defining a separate market:

- (a) Crane and other market participants compete across a broad range of end-uses: the plumbing segment accounts for only [ ]% of the pipe systems market.
  - (b) Even within the plumbing segment, pipes are used in a number of applications including pressurised pipes used in hot and cold water plumbing. This segment is dominated by copper and newer generation plastics such as PP, PEX and PB. PVC pipes account for [ ] of this segment.
  - (c) While it is true that PVC pipes are used more extensively in non-pressurised plumbing and drainage (DWV), where PVC pipes account for [ ]% of sales, since the Commission last considered this market there has been an increasing trend by plumbers to substitute PP, PE and lightweight cast iron. This has been particularly evidence in the commercial and hotel sector and any move to impose a *ssnip* for any particular end-use would simply reinforce and accelerate this process.
  - (d) RX Plastics has only a small presence in the plumbing segment ([ ]% share) and does not manufacture non-pressurised plumbing and drainage to any significant extent – it would sell less than [ ]% of PVC pipes in this segment and it does not sell PVC fittings in this segment.
37. On the supply side it is relatively simple for PVC and PE/PP pipe manufacturers to switch production from one type of product to the other because much of the plant is inter-changeable. Manufacturers/distributors also have the ability to source traditional materials for re-supply, as manufacturers and distributors are actively involved in tenders where success requires various options and alternatives to be put forward. The majority of tenders now seek solutions and do not constrain bidders by specifying a particular required material type or methodology.

38. [

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39. [



]

40. [

]

41. Accordingly, for all the reasons outlined above, in Crane's view, a *ssnip* applied to PVC pipes would reduce the cost competitiveness of PVC pipes compared to substitute materials. Consumers could readily substitute other materials, including PE pipes and traditional materials. The ability of manufacturers and consumers to substitute various material types for PVC pipes demonstrates that the correct market definition is the manufacture/wholesale supply of pipe systems in New Zealand (**Pipe Systems Market**).
42. While this is Crane's firm view, Crane acknowledges that the Commission's previous approaches and therefore has provided information in this submission about the PVC Pipes Systems Segment, the PE Pipe Systems Segment and the Plastic Pipes Systems Segment of the Pipe Systems Market.

## **Differentiated Product Markets**

**12. Please indicate whether the products in each market identified in question 11 are standardised (buyers make their purchases largely on the basis of price) or differentiated (buyers make their purchases largely on the basis of product characteristics as well as price).**

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43. Pipeline systems are differentiated based on raw material, but not to such a degree as to warrant separate market definitions. Price is the key driver of competition.

### **13. For differentiated product markets**

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**13.1 Please indicate the principal characteristics of products that cause them to be differentiated one from another.**

44. Competition for customers takes place across a spectrum of relevant competitive factors including price, quality, service, range, construction methodology and convenience.

**13.2 To what extent does product differentiation lead firms to tailor and market their products to particular buyer groups or market niches?**

45. See response to Question 12.

**13.3 Of the various products in the market, which are close substitutes for the products of the proposed combined entity and which are more distant substitutes?**

46. Other manufacturers of PVC and PE pipelines would be the closest substitutes for products manufactured by Crane and RX Plastics. However, Crane regards pipes made from all other raw materials to be constraining and compelling substitutes for its products.

**13.4 Given the level of product differentiation, to what extent do you consider that the merged entity would be constrained in its actions by the presence of other suppliers in the affected market(s)?**

47. Crane will continue to be constrained by all manufacturers and importers of all forms of pipeline systems, including plastic and non-plastic pipe manufacturers.

**Vertical Integration**

**14. Will the proposal result in vertical integration between firms involved at different functional levels?**

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48. Both Crane and RX Plastics are involved in both the manufacture and distribution of pipelines systems with no change to the existing market structure for distribution envisaged. Crane notes that there a number of vertically integrated manufacturers in the Pipe Systems Market and a large number of independent distributors of pipe systems in New Zealand.

**15. In respect of each market identified in questions 11 and/or 14 identify briefly:**

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**15.1 All proposed acquisitions of assets of a business or shares involving either participant (or any interconnected body corporate thereof) notified to the Commission in the last three years.**

49. There are none as far as Crane is concerned.
50. Crane is unaware of any acquisitions by RX Plastics in the last 3 years.

**15.2 Any other acquisition of assets of a business or shares which either participant (or any interconnected body corporate) has undertaken in the last three years.**

51. Crane is unaware of any acquisitions by RX Plastics in the last 3 years.
52. Crane acquired Wavin's 25% share in Iplex in 2006.

## PART III: CONSTRAINTS ON MARKET POWER BY EXISTING COMPETITION

### Existing Competitors

16. In the market or markets, who are the suppliers of competing products, including imports?

### Market share summary

53. Table 3 sets out the market share of the merged entity in the New Zealand Pipe Systems Market.

**Table 3 - Market shares of Pipe Systems Market (pipe and fittings) (2006/2007)**

Supplier	Value NZ\$m	Market share
Crane related companies	[ ]	[ ]%
RX Plastics	[ ]	[ ]%
<b>Merged entity</b>	[ ]	[ ]%
Marley/Dux	[ ]	[ ]%
Humes	[ ]	[ ]%
Hynds	[ ]	[ ]%
Steel Pipe	[ ]	[ ]%
Tyco	[ ]	[ ]%
CSP	[ ]	[ ]%
Interpipe	[ ]	[ ]%
Others	[ ]	[ ]%
<b>TOTAL</b>	[ ]	<b>100%</b>

**Source:** Crane estimates.

54. Based on Table 3, the Acquisition would fall within the Commission's safe harbour guidelines. As noted above, Crane recognises that the Commission's previous approach defined narrower market segments. While Crane does not agree with such a narrow approach to market definition, Table 4, Table 5 and Table 6 provide market segment shares for the Plastic Pipe Segment, the PVC Pipe Segment and the PE Pipe Systems Segment, respectively.

Table 4 - Plastic Pipe Systems (pipe and fittings) segment shares (2006/2007)

Supplier	Value NZ\$m	Segment share
Crane related companies	[ ]	[ ]%
RX Plastics	[ ]	[ ]%
<b>Merged entity</b>	[ ]	[ ]%
Marley	[ ]	[ ]%
Tyco	[ ]	[ ]%
Interpipe	[ ]	[ ]%
Clipsal	[ ]	[ ]%
PPI	[ ]	[ ]%
Rural Direct	[ ]	[ ]%
Others (various importers and smaller manufacturers – PVC, PE, PP)	[ ]	[ ]%
<b>TOTAL</b>	[ ]	<b>100%</b>

Source: Crane estimates

Table 5 - PVC Pipe Systems Segment shares (2006/2007)

Supplier	Value NZ\$m	Segment share
Crane related companies	[ ]	[ ]%
RX Plastics	[ ]	[ ]%
<b>Merged entity</b>	[ ]	[ ]%
Marley	[ ]	[ ]%
Clipsal	[ ]	[ ]%
Others (Importers)	[ ]	[ ]%
<b>TOTAL</b>	[ ]	<b>100%</b>

Source: Crane estimates

Table 6 - PE Pipe Systems Segment shares (2006/2007)

Supplier	Value NZ\$m	Segment share
Crane related companies	[ ]	[ ]%
RX Plastics	[ ]	[ ]%
<b>Merged entity</b>	[ ]	[ ]%
Tyco	[ ]	[ ]%

Supplier	Value NZ\$m	Segment share
Marley	[ ]	[ ]%
Interpipe	[ ]	[ ]%
Others(Importers)	[ ]	[ ]%
<b>TOTAL</b>	<b>[ ]</b>	<b>100%</b>

**Source:** Crane estimates

55. If the Commission were to adopt a narrower market definition the Acquisition would fall outside the Commission's safe harbour guidelines based on Table 4, Table 5 and Table 6.
56. In Crane's view RX Plastics' market share reflects its market position. RX Plastics is a good competitor but is not an atypically vigorous or effective competitor. Its removal would not result in the removal of a constraint on Crane that would allow it to give less or charge more.

## Existing competitors

57. There are a number of large well-resourced competitors in the pipe systems market that will continue to constrain the merged entity post-acquisition. These include:
- Marley;
  - Vinidex;
  - Hynds;
  - Humes;
  - Rural Direct (Auplex);
  - Tyco Water (Prebenson Pipelines);
  - Interpipe;
  - PPI Corporation; and
  - Steel Pipe NZ.

### Marley New Zealand Limited (Marley)

58. Marley is ultimately owned by the Aliaxis S.A. (Belgium) via its holding company New Zealand Investment Holdings Limited. It manufactures and wholesales PVC pipes and

fittings, manufactures and wholesales PE pipes, and sells imported PE fixtures. It also manufactures and wholesales rainwater systems (spouting, downpipes and associated fittings).

59. Marley is the second largest manufacturer of plastic pipes in New Zealand, and the only New Zealand major manufacturer of plastic pipe fittings. It is a subsidiary of Aliaxis S.A., a private company registered in Belgium.
60. New Zealand Investment Holdings Limited is also the holding company for Dynex Extrusion Limited (Dynex), which manufactures custom plastic extrusions and plastic cladding, and Chemvin Plastics Limited, which manufactures plastic compound from imported resin for Marley and external customers and Dux Industries which manufactures PB pipe and fittings for the hot and cold plumbing market.

**Vinidex Pty Limited (Vinidex)**

61. Vinidex is the second largest manufacturer of PVC and PE pipes and fittings in Australia. Other than as a supplier of some pipe and fittings for on-sale by Marley it has no direct involvement in the New Zealand pipe systems market. However, there is no contractual obligation preventing Vinidex from supplying New Zealand directly.

**Humes Pipeline Systems Limited (Humes)**

62. Humes is a subsidiary of Fletcher Concrete and Infrastructure Limited. It manufactures concrete pipes, and distributes PVC and PE pipes and fittings. Humes owns 50 % of Interpipe Holdings – a plastic pipes and fittings manufacturing joint venture with Hynds Ltd. Interpipe manufactures solid wall and corrugated PE pipe. Interpipe could easily expand its product range to those supplied by the merged entity.

**Hynds Pipe Systems Limited (Hynds)**

63. Hynds is a private company which, like Humes, manufactures concrete pipes and distributes PVC and PE pipes and fittings. It sources these pipes from a variety of New Zealand manufacturers including its shared interest manufacturer Interpipe (discussed above).

**Rural Direct**

64. Rural Direct is a privately owned manufacturer of PE pipe and wholesaler of PE fittings direct to the New Zealand farming, agricultural and construction sectors.

**Tyco Water (Tyco)**

65. Tyco Water is part of the Tyco International Group and are a manufacturer and supplier of watermain and irrigation solutions. Tyco manufacture PE pipe (formerly Prebensen Pipelines), source and distribute PVC pipe direct to the civil contracting sector and into the irrigation and rural sector through their Water Dynamics outlets.

**PPI Corporation (PPI)**

66. PPI is an Australian owned manufacturer and distributor of PE pipe and fittings systems for the irrigation, water supply and drainage markets. They operate a PE pipe manufacturing plant in Rangiora for supply to the NZ rural sector.

**Steelpipe NZ Ltd (Steelpipe)**

67. Steelpipe is a privately owned manufacturer of spiral wound steel pipe for supply to the sewer, water-main and irrigation sectors.

**Competition is intense and would remain so post-acquisition**

68. Competition in the pipe systems market can take the form of normal supply arrangements or via a tender process. Tenders are becoming increasingly more common for major construction and infrastructure projects.
69. There is strong competition amongst all suppliers as indicated by [

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**17. Conditions of expansion and entry**

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**New Zealand based expansion**

70. The Commission has previously found that barriers to entry into the New Zealand pipe systems market are low and that the threat of entry provides sufficient constraint to make a substantial lessening of competition unlikely (see Iplex/Keyplas Investigation Report at paragraph 77) In Decision 405, the Commission concluded that there were low barriers to entry in the PVC Pipe Systems Segment on the basis that:

- the raw materials for producing the different types of pipes were readily available, therefore, an existing or potential supplier was not restricted as to their level of production; and



- an extrusion or moulding plant would be relatively easy to establish (in the order of NZ\$ 0.75 – 1.5 million).<sup>2</sup>

71. The ACCC has found similarly:

The Commission considered that barriers are low, as access to the technology required to produce most types of plastic pipe is widely available, initial capital expenditure is relatively low, and the raw material, plastic resin, is widely obtainable. It did not appear that brand loyalty was strong in the market, given the homogeneity of the product, though price and quality remain factors.

72. Crane's agrees with the Commission's (and ACCC's) previous conclusions and does not consider that anything has changed in the market that should cause the Commission to reach a different view in this context. It remains the case that:

- An existing manufacturer would face no restrictions in increasing its level of production and could do so quickly through increasing staff, increasing operating hours or purchasing higher output extruders (the costs of extruders is discussed below).
- Imports of resin (the major input in the plastic pipes segment) are readily available.
- Capital costs would remain of the order of magnitude identified by the Commission and would be lower in terms of incremental expansion by an existing participant. The capital cost of a new extruder and ancillary equipment begins at NZ\$[ ] per extruder. To manufacture the common range of PVC pipe fittings, a manufacturer would require a moulding plant. The capital cost of a moulding plant begins at NZ\$[ ]].
- There are no environmental consent issues involved in constructing new plant.
- Access to any technology required to produce most types of plastic pipe is readily available from either raw material suppliers or extruder equipment manufacturers.

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<sup>2</sup> Decision 405, paragraphs 78 – 80.

## Imports

73. In Decision 405, the Commission considered that the availability of imported PVC pipe systems would amount to a constraint on the merged entity. The Commission confirmed this in the Iplex/Keyplas investigation noting that while imports of PVC pipes amounted to a small proportion of the market (less than 5%) they already place downward pressure on prices.<sup>3</sup> Furthermore, the Commission recognised Vinidex could easily gear up its Australian production to supply New Zealand.<sup>4</sup>
74. These conclusions are equally applicable in today's market and the merged entity will also be constrained by the ability of consumers to source supply from overseas.
75. The value of imported PVC pipes and PE pipes for the 2007 calendar year are set out in Table 7.

**Table 7 - Value of imports (NZ\$m) exclusive of freight – 2003 and 2007**

	PVC pipes	PVC Fittings	Other Plastic Pipe & Fittings	Non-Plastic (substitutes)	TOTAL
2003	[ ]	[ ]	[ ]	[ ]	[ ]
2007	[ ]	[ ]	[ ]	[ ]	[ ]

**Source:** Crane estimates

76. Based on Table 7, imports account for approximately [ ]% of the PVC segment and [ ]% of the Plastic Pipes segment.<sup>5</sup> Imports have increased materially in all plastic segments since 2003: imports of PVC pipes have increased by [ ]%, PVC fittings by [ ] times their 2003 level, and other plastics by [ ] times.
77. This demonstrates clearly that the merged entity is currently constrained by the prices of imports. To illustrate Table 8 provides a summary of import prices compared with local New Zealand prices for three high volume products in the Building/Plumbing sector.

<sup>3</sup> Iplex/Keyplas Staff Report at 58.

<sup>4</sup> Iplex/Keyplas Staff Report at 65.

<sup>5</sup> The market share figures set out in Table 7 were calculated on the basis of a PVC Pipe Systems Segment size of \$[ ] and a Plastic Pipe Systems Segment size of \$[ ].

Table 8 - Standard Drain Waste Vent (DWV) Pipe Prices

Product	Iplex price to distributor (NZ\$) <sup>6</sup>	Distributor price to Plumber (NZ\$)	Importers' price to Plumber (NZ\$) <sup>7</sup>	Estimated Importers landed price (NZ\$) <sup>8</sup>	Estimated Freight cost (NZ\$)
50 mm DWV	[ ]	[ ]	[ ]	[ ]	[ ]
80 mm DWV	[ ]	[ ]	[ ]	[ ]	[ ]
100 SN 6 DWV	[ ]	[ ]	[ ]	[ ]	[ ]

Source: Crane estimates

78. As can be seen freight costs are not high and do not prevent an importer from providing product at an attractive price. Indeed, as illustrated, freight amounts to between [ ]% and [ ]% of the importers' landed price.
79. In New Zealand, plastic pipe systems are manufactured to a common Australasian standard. In addition, Asian manufacturers produce both to the British standard (which is the standard that the Australasian standard is based on) and directly to the Australasian standard..
80. Due to these common standard and quality requirements, there is very little product differentiation in the Plastic Pipe Systems Segment. New Zealand products are interchangeable with Australian and Asian products. There is some consumer preference for particular types of fitting designs or pipe jointing methods. However, no manufacturer has any proprietary interest in these methods.
81. There is significant manufacturing capacity installed in Australia and Asia to supply plastic pipe and plastic pipe fittings into New Zealand. A New Zealand importer or consumer could obtain consistent and timely supply from Australian and Asian manufacturers given an existing trading relationship.
82. There are no import tariffs on plastic pipes and fittings. Nor are there any licensing arrangements or distribution controls on plastic pipe and fittings imports.

<sup>6</sup> Iplex selling prices are exclusive of rebates but averaged off specials list. (They are not printed selling prices).

<sup>7</sup> Importers' price are prices average from everyday market price lists from Aquafit, MPM, Pipezone, Pipe & Fittings.

<sup>8</sup> Estimated Importers' landed costs based on market knowledge.

**18 Please name any business which already supplies the market - including overseas firms - which you consider could increase supply of the product concerned in the geographic market by any of the following means:**

- **diverting production into the market (e.g., from exports)**
  - **increasing utilisation of existing capacity**
  - **expansion of existing capacity.**
- 

83. Any existing competitor could easily expand its supply in New Zealand very quickly by increasing utilisation (which could occur immediately), importing product (3 weeks) or expanding capacity (3-6 months).

**19. Of the conditions of expansion listed above, which do you consider would influence the business decision in each case to increase supply?**

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84. Customer demand would be the key driver of a decision to expand.

**20. How long would you expect it to take for supply to increase in each case?**

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85. See response to Question 18.

**21. In your opinion, to what extent would the possible competitive response of existing suppliers constrain the merged entity?**

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86. The potential response from competitors would place a major constraint on the merged entity post-acquisition. The New Zealand Court of Appeal in *Commerce Commission v Southern Cross Medical Care Society*<sup>9</sup> noted that the height of barriers to entry and expansion is of critical importance in analysing the likely effect of an acquisition:

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<sup>9</sup> *Commerce Commission v Southern Cross Medical Care Society* CA 89/01, 21 December 2001.

...whatever the size of the merged entity's market share, it is elementary that its market power will not be insufficiently constrained unless there are barriers to entry or expansion which protect it from effective rivalrous reaction to the exercise of its market power"<sup>10</sup>

**22. Looked at overall, and bearing in mind the increase in market concentration that would be brought about by the acquisition, to what extent do you consider that the merged entity would be constrained in its actions by the conduct of existing competitors in the markets affected?**

87. The level and intensity of competition in the factual and the counterfactual will not change.

**Coordinated Market Power**

**23. Identify the various characteristics of the market that, post-acquisition, you consider would either facilitate or impede coordination effects.**

88. To determine whether any acquisition is likely to facilitate tacit collusion it is necessary to identify whether tacit collusion is currently occurring in the market and, if it is not, to what extent the relevant acquisition will undermine or remove those factors that are currently preventing tacit collusion.

89. Crane submits that the only factor that is altered by the acquisition is to decrease the number of market participants. However, this change is insignificant given the other factors in the market that would make collusion difficult and would not be changed by the acquisition.

Factors conducive to collusion	Presence of factors in the market
High seller concentration	Many potential competitors and firms able to expand
Undifferentiated product	Yes within product ranges (e.g. PVC pipes) but the high degree of supply-side substitution means a number of different products fall within the relevant market.

<sup>10</sup> *Commerce Commission v Southern Cross Medical Care Society* CA 89/01, 21 December 2001, paragraph 86 per Richardson P and Tipping J.

	Accordingly, it is difficult to reach agreements as to price because to do so would effectively require agreement in respect of a large number of different products.
New entry slow	No, new entry could occur quickly as previously acknowledged by the Commission
Lack of fringe competitors	No
Price inelastic demand curve	No, consumers are highly likely to substitute manufacturers or products
Industry's poor competition record	No
Presence of excess capacity	Yes
Presence of industry associations/fora	No

**24. Identify the various characteristics of the market that, post-acquisition, you consider would facilitate or impede the monitoring and enforcement of coordinated behaviour by market participants.**

90. The market structure and behavioural features identified by the Commission as likely to enhance detection and discipline are assessed below.

Factors conducive to discipline	Presence of factors in market
High seller concentration	Many existing and potential competitors and firms able to expand
Small and frequent sales	Varies, though there are many large tender processes
Absence of vertical integration	No, however all the merged entity's transactions are at arms length.
Slow growing demand	No. Demand is volatile due to the building cycle and the rural economy.
Firms have similar costs	No. Various firm sizes leading to varying cost structures.
Price transparency	Yes

**25. Indicate whether the markets identified in paragraph 9 above show any evidence of price coordination, price matching or price following by market participants.**

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91. The markets show no evidence of price matching, price coordination or price following other than what one would expect to see in a highly competitive market.

**26. Please state the reasons why, in your opinion, the transaction will not increase the risk of coordinated behaviour in the relevant market(s).**

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92. The market is characterised by a large number of competitors making pipes with differing raw materials. Within the plastics segments barriers to entry are low and any increase in prices is likely to attract competitive entry. In those circumstances there is little incentive for firms to engage in tacit collusion, and even less potential for that tacit collusion to be sustainable.

## **PART IV: CONSTRAINTS ON MARKET POWER BY POTENTIAL COMPETITION**

93. See discussion in response to questions 17-22, which is Crane's response to Questions 28-36. Because barriers to entry and expansion are low, there is ample opportunity for new entrants to enter the market. Crane is happy to provide any further information the Commission requires.



## PART V: OTHER POTENTIAL CONSTRAINTS

### Constraints on Market Power by the Conduct of Suppliers

94. Crane is not claiming it will be constrained by suppliers post Acquisition.

### 37. would be the suppliers of goods or services to the merged entity in each market identified in questions 11 and/or 14?

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95. N/A.

### 38. Who owns them?

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96. N/A.

### 39. In your opinion, to what extent would the conduct of suppliers of goods or services to the merged entity constrain the merged entity in each relevant market?

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97. N/A

### Constraints on Market Power by the Conduct of Acquirers

98. In Decision 405, the Commission concluded that merchants held constraining countervailing power in the PVC Pipe Systems Segment and noted:

There was a broad consensus amongst the other industry players (both major merchants and other manufacturers) that the large merchants do in fact hold substantial market power.<sup>11</sup>

99. The Commission confirmed this conclusion in the Iplex acquisition:

The Commission concludes that the larger customers of the merged entity are likely to have some countervailing power and would be able to provide a credible constraint on the combined entity.<sup>12</sup>

100. There has been no change in market conditions that should cause the Commission to reach a different conclusion in this case.

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<sup>11</sup> Decision 405, paragraph 72.

<sup>12</sup> Iplex/Keyplas Investigation Report, paragraph 82.

**40. Who would be the acquirers of goods or services supplied by the merged entity in each of the markets identified in questions 11 and/or 14?**

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101. There are several large consumers in the Pipe Systems Market, each with significant countervailing power. These consumers include:

- major plumbing supplies companies such as;
  - Plumbing World Limited ( 43 branches nationwide);
  - Bunnings;
  - Chesters Plumbing & Bathroom Centre Limited (7 branches predominantly Auckland );
  - Franklin Plumbing Supplies (6 stores predominantly Auckland);
  - Plumbing Plus Group ( 24 stores nationwide);
  - Reece Plumbing Supplies; and
  - Crane Distribution NZ:
    - o Mico Plumbing (37 branches nationwide); and
    - o Mastertrade (49 branches nationwide);
- major Civil/Infrastructure contractors including:
  - Brian Perry Limited;
  - Doug Hood Limited;
  - Downer EDI Works ;
  - Earthworks (Marlborough) Limited;
  - Fletcher Construction Limited;
  - Fulton Hogan Limited;
  - HEB Contactors Limited;

- Higgins Contractors Limited;
- Hopper Construction Limited;
- McConnell Dowell Corporation Limited; and
- Delta Utility Services Ltd;
- local government authorities such as city councils, district councils and area health boards;
- telecommunications companies such as Telecom and Telstra Clear; and
- rural Services companies such as;
  - PGG-Wrightson;
  - RD1;
  - Farmlands; and
  - CRT.

102. The merged entity will be constrained by each of these consumers' ability to:

- (a) obtain supply from other New Zealand manufacturers;
- (b) import product directly; and
- (c) encourages and supports new entry or expansion.

103. In relation to (b), the Commission received evidence that

...if they had to, they could import product in the face of unreasonable behaviour by the incumbents. PVC pipes over 250mm in diameter are produced to international standards, and can be sourced from a number of countries. Smaller diameters produced to the Australia/New Zealand standard can be sourced from Australia, either from Vinindex or from plumbing merchants.<sup>13</sup>

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<sup>13</sup> Iplex/Keyplas Staff Report, paragraph 78.

**41. Who owns them (where appropriate)?**

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104. Ownership links are described in response to question 40 or else can be obtained from publicly available sources.

**42. In your opinion to what extent would the conduct of acquirers of goods or services to the merged entity constrain the merged entity in each affected market? How would this happen?**

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105. Crane agrees with the Commission's previous conclusions that larger customers of the merged entity are likely to have countervailing power and would be able to provide a credible constraint on the combined entity.

THIS NOTICE is given by:

**Crane Group Limited**

The company hereby confirms that:

- \* all information specified by the Commission has been supplied;
- \* all information known to the applicant/s which is relevant to the consideration of this application/notice has been supplied;
- \* all information supplied is correct as at the date of this application/notice.

The company undertakes to advise the Commission immediately of any material change in circumstances relating to the application/notice.

Dated this 20<sup>th</sup> day of February 2008.

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**Mark Fitzgerald**  
**Finance Director**

I am an officer of the company and am duly authorised to make this application/notice

**Annexure 1: Organisational chart**

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## Annexure 2 - Substitutable products

Products	NZ PVC Manufacturer	PVC Importers	Substitute Products	NZ Substitute Product Manufacturers/Importers	Substitute Products
DWV Pipe below 100mm diameter	Iplex Marley RX Plastics	Pipe & Fittings Aqua-Fit, MPM, Pipezone	Polyethylene  Polypropylene  ABS Copper	Iplex, Marley, RX Plastics, Tyco/Prebenson, Interpipe Plastic Systems (I) Imported by all Plumbing Merchants from Crane, Kembla in Australia and Asian suppliers	Galvanised iron Steel
100mm DWV Pipe	Iplex Marley RX Plastics	Pipe & Fittings Aqua-Fit, , MPM, Pipezone	Polyethylene  Polypropylene  Ductile/Cast Iron ABS Copper	Iplex, Marley, RX Plastics, Tyco/Prebenson, Interpipe Plastic Systems (I) Imported by all Plumbing Merchants from Crane and Kembla in Australia and Asian suppliers	Clay Fibre reinforce concrete pipe Increased use of polyethylene and Ductile/Cast Iron
150mm DWV Pipe	Iplex Marley RX Plastics	Pipe & Fittings, Aqua-Fit, , MPM, Pipezone	Polyethylene Ductile/Cast Iron Clay ABS Copper	Iplex, Marley, RX Plastics, Tyco/Prebenson, Interpipe (I) Humes (M/I), Hynds(M/I) Plastic Systems (I) Imported by all Plumbing Merchants from Crane and Kembla in Australia and Asian suppliers	RCP Concrete pipes Increased use of clay, ductile/cast iron, polyethylene and Fibre reinforced concrete pipes
225-375mm DWV Pipe	Iplex Marley RX Plastics	Pipe & Fittings	Polyethylene Ductile/Cast Iron Clay Concrete Pipes	Iplex, Marley, RX Plastics, Tyco/Prebenson, Interpipe Humes (M/I), Hynds(M/I) Humes, Hynds, Plastic Systems(I)	Increased use of clay, ductile/cast iron, polyethylene and Fibre reinforced concrete pipes

<b>Products</b>	<b>NZ PVC Manufacturer</b>	<b>PVC Importers</b>	<b>Substitute Products</b>	<b>NZ Substitute Product Manufacturers/Importers</b>	<b>Substitute Products</b>
Stormwater/drainage pipes up to 150mm diameter	Iplex Marley RX Plastics	Pipe & Fittings	Clay Concrete pipes	Humes (M/I), Hynds(M/I), Southtile	Spirally wound PVC or PE pipes (Riblock) Increased use of clay, polyethylene and Fibre reinforced concrete pipes
Stormwater/drainage pipes up to 150mm-375mm diameter	Iplex Marley RX Plastics	Pipe & Fittings	Clay Concrete pipes	Humes (M/I), Hynds(M/I), Interpipe, Southtile, CSP 4-5 small local manufacturers	Increased use of clay Concrete, RCP and Fibre reinforced concrete pipe Spirally wound PVC or PE pipes (Riblock) Twin walled polyethylene
Electrical & communications conduits below 80mm diameter	Iplex Marley RX Plastics	Pipe & Fittings	Minimal use of steel Polyethylene	Iplex, Marley, RX Plastics, Tyco/Prebenson, Interpipe	Increased use of steel and polyethylene
Electrical & communications conduits 80mm – 150mm diameter	Iplex Marley RX Plastics	Pipe & Fittings	Polyethylene	Iplex, Marley, RX Plastics, Tyco/Prebenson, Interpipe	Increased use of Fibre reinforced concrete pipe Polyethylene
Series 1 Pressure pipe below 100mm diameter	Iplex Marley RX Plastics	Aqua-fit Pipe & Fittings	Polyethylene Steel ABS	Iplex, Marley, RX Plastics Tyco/Prebenson, Interpipe Southland Engineering, Steel Pipe Plastic Systems(I)	Increased use of Polyethylene, Fibre reinforced concrete
Series 1 Pressure pipe 100mm – 375mm diameter	Iplex Marley RX Plastics	Pipes & Fittings	Polyethylene  Steel  K7 Ductile Iron ABS	Iplex, Marley, RX Plastics Tyco/Prebenson, Interpipe Southland Engineering, Steel Pipe Plastic Systems(I)	Increased use of Polyethylene, Fibre reinforced concrete, Steel and K7/K9 Ductile Iron
Series 2 Pressure pipe 100mm – 200mm	Iplex Marley	Marley	Polyethylene	Iplex, Marley, RX Plastics Tyco/Prebenson, Interpipe	Increased use of Polyethylene, Fibre



Products	NZ PVC Manufacturer	PVC Importers	Substitute Products	NZ Substitute Product Manufacturers/Importers	Substitute Products
diameter	RX Plastics		Steel K7/K9 Ductile Iron ABS	Southland Engineering, Steel Pipe Plastic Systems(I)	reinforced concrete, Steel and K7/K9 Ductile Iron
Series 2 Pressure pipe 200mm & above diameter	Iplex Marley	Marley	Polyethylene Steel K7/K9 Ductile Iron Concrete ABS	Iplex, Marley, RX Plastics Tyco/Prebsenson, Interpipe CSP, Southland Engineering, Steel Pipe Humes, Hynds, Adrian Ready, Southland Plastic Systems(I)	Increased use of Polyethylene, Fibre reinforced concrete, Steel and K7/K9 Ductile Iron Concrete
PVC Fittings – Non pressure	Marley	Aqua-Fit, MPM Pipezone, Iplex Pipe & Fittings Plumbing companies and plumbing merchants	All substitute pipe materials have complementary fittings systems available.		
PVC Fittings – Pressure	Marley	Aqua-Fit, MPM Pipezone, Iplex Pipe & Fittings Plumbing companies and plumbing merchants	All substitute pipe materials have complementary fittings systems available.		
PVC Electrical Fittings	Marley	Clipsal			