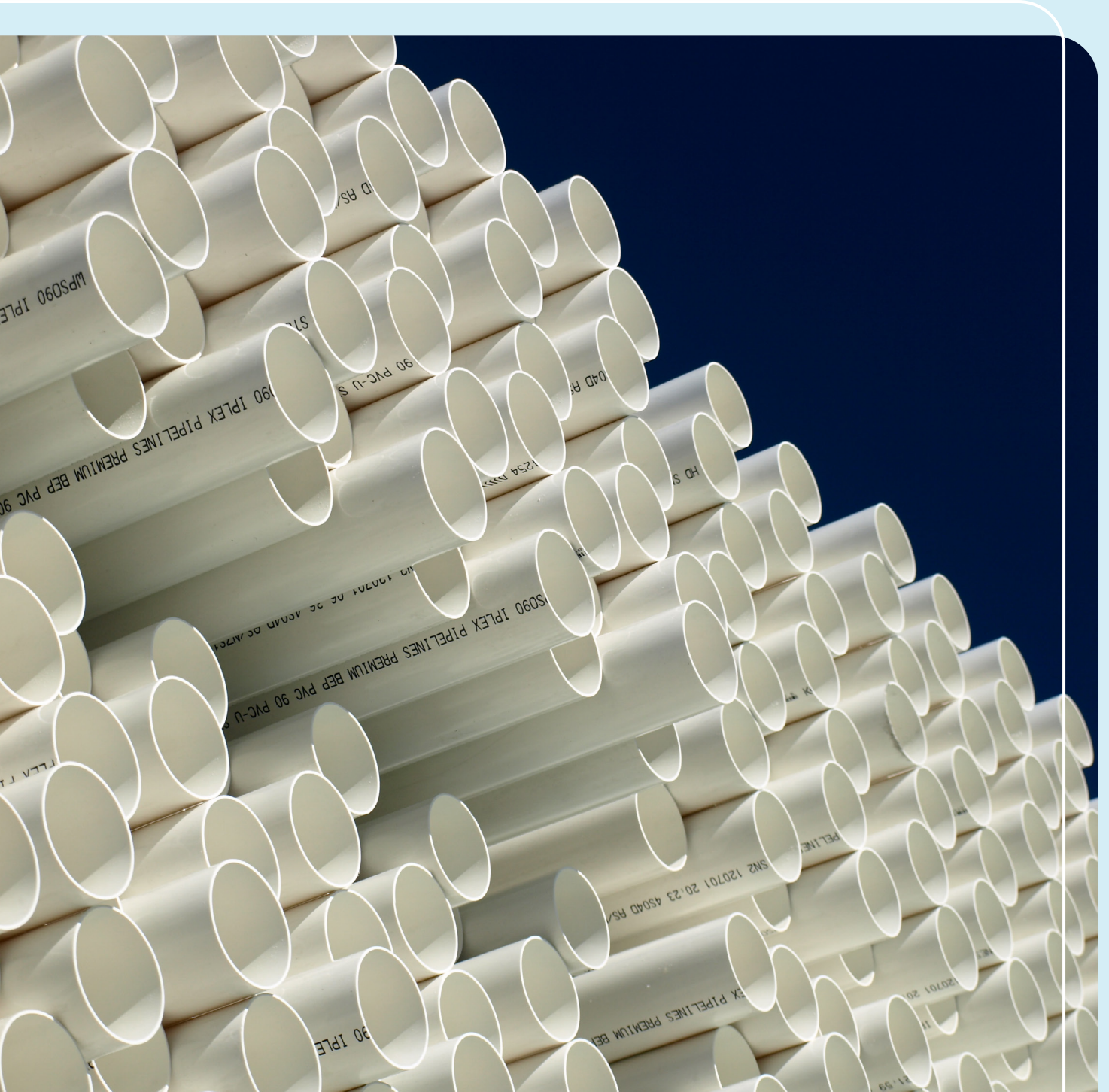




# Technical Guide

Version 1.0 / December 2025

## PVC Stormwater Technical Guide



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#### **Important disclaimer**

This document provides technical information about the Iplex product range. It is subject to change without notice. Iplex does not provide design or other professional services and this document must not be relied upon as such. Before purchasing goods, always seek independent expert advice on the suitability of the goods for the intended purpose or their application. Any safety information is provided as a guide only and any reliance on or use of any such information is at your own risk. Except as provided in Iplex's terms and conditions of sale for these goods, and to the extent permitted by law, Iplex is not liable for any direct or indirect loss, damage or injury suffered by persons who rely on the information contained in this document. The designs, graphics, logos, trademarks and other intellectual property contained in this document are owned by or licensed to Iplex and you must not use, reproduce, or otherwise deal with the content without Iplex's prior written consent.

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# 1.0 Introduction

With over 85 years of experience, Iplex is a leading Australian manufacturer and supplier of plastic pipes and fittings. We are recognised for our technical expertise and commitment to quality across the industry.

Strategically located warehouses and distribution centres across Australia allow us to respond quickly to customer orders.

Beyond product supply, Iplex offers technical and sales support to assist with accurate and cost-effective installation—helping customers approach each project with confidence.

The products detailed in the pages that follow form the standard range of stormwater products. If you cannot find the information you are looking for please feel free to reach out to your local Iplex representative, our National Sales team on 1300 047 539 or you can visit [www.iplex.com.au](http://www.iplex.com.au).

## 1.1 PVC-U pipeline systems for stormwater disposal

PVC-U plastic pipe systems offer major advantages over traditional materials for stormwater applications including corrosion resistance, installation economics, operating efficiencies, and significant reductions in maintenance costs.

Iplex manufactures and supplies a comprehensive range of pipeline solutions for stormwater applications with a full range of fittings and pipes up to DN 375 nominal diameter.

## 1.2 Standards

Iplex PVC-U stormwater pipe and fittings systems are manufactured to *AS/NZS 1254 PVC-U Pipes and Fittings for Stormwater or Surface Water Applications*.

Iplex stormwater pipes and fittings are free from toxic heavy metals such as lead, mercury, and cadmium, making them safe for use in rainwater tanks intended for drinking water.

Additionally, these pipes are supplied in effective 6-metre lengths, which include an integral solvent weld socket for secure and reliable connections.

## 1.3 Chemical resistance

Generally PVC-U is resistant to most oils, fats, alcohols and aromatic and chlorinated hydrocarbons, ketones and esters which can lead to swelling and softening of the material. A full chemical resistance library can be viewed on the Iplex website [www.iplex.com.au](http://www.iplex.com.au).

## 1.4 Colour and markings

Some Iplex stormwater pipes and fittings are manufactured with a percentage of recycled materials, as permitted by the relevant product standard. Consequently colour can vary, however, most pipe manufactured is white in colour.

Iplex stormwater pipe is branded in accordance with AS/NZS 1254, which includes the size, stiffness, Best Environmental Practice (BEP) PVC and date and place of manufacture.

## 1.5 Material properties

The properties listed in the following table are typical characteristics of PVC-U. The mechanical properties are for PVC-U at 20°C.

Density (Solid wall)	1530 kg/m <sup>3</sup>
Minimum ultimate tensile strength	52 MPa
Compressive strength	66 MPa
Shear strength	39 MPa
Tensile (Youngs) modulus	2750 MPa at high loads
Hardness (Shore D)	85 ASTM D2240
(Ductility) minimum elongation at Yield	5.5%
Poissons ratio	0.35 - 0.38
Flexural strength	69 – 110 MPa
Coefficient of linear thermal expansion	7 x 10 <sup>-5</sup> /°C

## 1.6 Product advantages

**Table 1.1**

Features	Benefits
Light weight	Lightweight Iplex PVC-U stormwater pipes can lead to significant freight and handling advantages.
High flow rate	Smooth bores and solvent weld joints allow for a high hydraulic capacity. Consequently, flatter grades are possible using PVC-U systems.
Flammability	PVC-U does not support combustion.
Non-conductivity	PVC-U is a non-conductor of electricity, and is therefore not subject to galvanic or electrolytic corrosion.
Tree root intrusion resistance	Properly made solvent weld joints have been shown to have resistance to the tree root intrusions that cause blockages.
Fittings range	The Iplex PVC-U stormwater system contains a complete range of adaptors to enable connection to a wide range of downpipes and other pipe systems.

## 1.7 Standards and testing

Iplex stormwater pipes and fittings are manufactured in accordance with AS/NZS 1254, the Australian/New Zealand Standard for PVC-U systems used in stormwater and surface water applications. Production is carried out under third-party certified quality management systems that comply with AS/NZS ISO 9001.

Design and installation of stormwater pipe and fittings is covered by AS/NZS 3500.3 *Plumbing and Drainage Standard Part 3: Stormwater Drainage*, and AS/NZS 2032 *Installation of PVC Pipe Systems*, installers must also ensure that local authority requirements are met.

Check Design Tools including Pocket Engineer on the Iplex website ([www.iplex.com.au](http://www.iplex.com.au)) for more information.

## 1.8 Product limitations

Iplex PVC-U stormwater pipes and fittings should not be used:

- With aromatic and chlorinated hydrocarbons, ketones, esters and ethers.
  - For any pumped pressure applications, or sewerage applications.
  - At continuous service temperatures above 60°C or for intermittent discharges of liquid above 75°C.
  - Without adequate support to the pipe in either, above ground or, below ground applications.
- In below ground applications where the depth of cover is less than the minimum requirements listed below, but refer to AS/NZS 2032 for the latest information:
    - i. 300mm where pipeline is not subject to vehicular loading.
    - ii. 450mm where pipeline is subject to vehicular loading not in roadways.
    - iii. 600mm where pipeline is subject to vehicular loading in sealed roadways.
    - iv. 750mm where pipeline is subject to vehicular loading in unsealed roadways.
    - v. 750mm where pipeline is subject to construction equipment loading.
  - when exposed to direct sunlight for service applications, or during storage exceeding 24 months from the date of manufacture, without protection. In storage, this protection can include hessian or canvas covers to allow adequate cooling air circulation. Do not use black or dark coloured plastic sheet or film covers which will heat and damage the pipes. Protection in service once installed can include physical shading such as under or inside bridges or structures, or pale coloured U.V. resistant, water based, paint systems.

## 2.0 Sustainability

### 2.1 Environmental Product Declaration - PVC Non-Pressure

An Environmental Product Declaration (EPD) is a standardised and verified way of quantifying the environmental impacts of a product based on a consistent set of rules known as PCR (Product Category Rules). The EPD for PVC non-pressure pipes:

- Conforms with International Standards ISO14025 and EN15804.
- Has been verified by an independent third party.
- Has at least a cradle to gate scope.
- Has product specific results.

The PVC non-pressure pipes EPD results can be used in whole of life cycle assessments under Green Star and Infrastructure Sustainability Rating Tools. Refer to the tables in the PVC non-pressure pipes EPD to convert the product results from kilogram of installed pipe to length of pipe for individual pipe products.

### 2.2 Best Environmental Practice - PVC

A Best Environmental Practice PVC (BEP PVC) Certification adheres to the Best Environmental Practice – PVC guidelines as outlined in the Green Building Council of Australia (GBCA) literature review and best practice guidelines for the life cycle of PVC building products. This includes compliance with the relevant specified standards and Section 7 of the GBCA guidelines.

Refer to Iplex's BEP PVC Certification for the specific review of Iplex's technical documentation aligned to a number of standards for:

- Manufacture of PVC resin.
- Manufacture and end of life management of PVC products.
- Use of PVC recycle in PVC products.



## 3.0 Storage and handling

### 3.1 Handling

PVC pipes are normally delivered in timber packs designed to hold the pipes in position and protect them from point loading and ovalisation.

Whilst PVC pipes are easy to handle, careless handling can cause unnecessary damage to the pipe. Pipes and fittings must not be dropped or thrown onto hard surfaces or allowed to come into contact with hard sharp objects that could inflict scratches.

Handle pipes with care to avoid damage, especially to joints and the spigot and socket areas. Use proper equipment and follow safety protocols to prevent injury. Avoid using wire slings to lift pipes.

### 3.2 Storage

PVC pipes must be left in their packed units wherever possible until they are required to be installed.

If pipes and fittings are stored outdoors for more than 24 months, protection from sunlight is required using a breathable material (i.e. hessian or white shade cloth) to prevent heat build-up and allow for ventilation.

Pipes may be stacked on site provided the ground surface is level and free from loose stones and other sharp objects. Socketed pipes must be stacked with alternate layers of sockets facing in opposite directions to prevent load bearing.

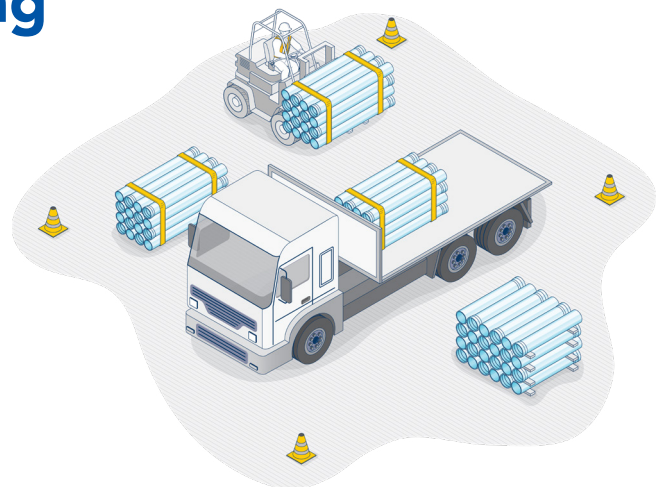
Racks for long term storage are recommended and should preferably provide continuous support, however if this is not possible, supports of at least 75mm bearing width at 1m maximum centres should be placed beneath the pipes. Side restraints should be placed at centres not exceeding 1.5m and stacks must not exceed 1m in height.

When unloading alongside excavated trenches, pipes should be placed on the opposite side of the trench from excavated material if it is safe to do so. Rubber rings and silicone spray must be stored under cover until pipe laying commences.

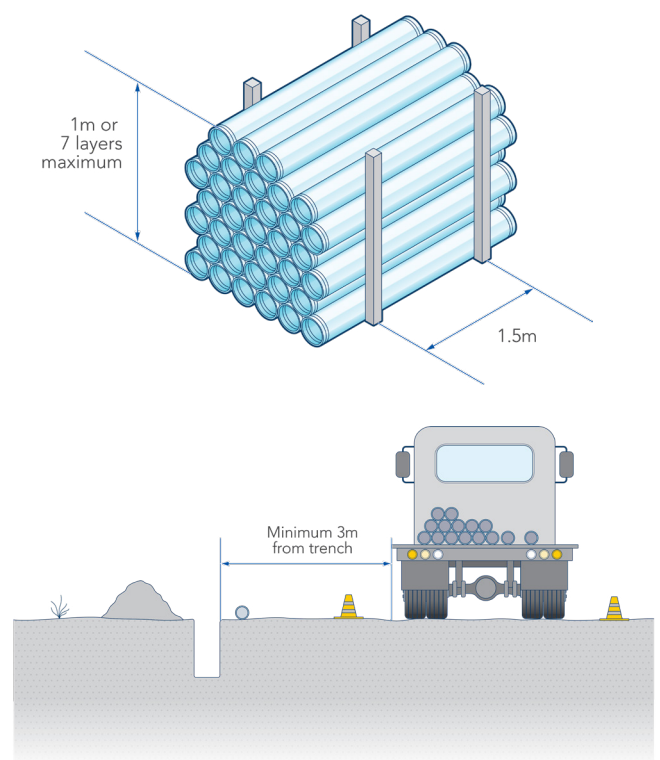
### 3.3 Cleaning

Water jet cleaning of pipeline internal surfaces is commonly applied in the case of pipeline maintenance, but if not properly managed, water emitted under high pressure has the potential to damage the pipe surface. Water jet cleaning of plastic pipes **MUST BE** carried out in accordance with the guidance given in PIPA POP205 – Water Jet Cleaning of Plastics Pipes. The use of excessive pressure and inappropriate techniques will damage the pipes. Further details regarding acceptable nozzle types, configurations, nozzle speed, and calculation of pump gauge pressure for varying flowrates is also given in [POP205](#).

Handling of block bundles



Loose pipes on bearers



## 4.0 Jointing method

PVC-U pipelines are easy to assemble. Stormwater solvent welded pipe may be fully jointed above the trench, but not lowered into the trench until the solvent has taken its initial set (see Section 4.1.7).

### 4.1 Solvent weld joint

Iplex premium solvent cements and benzene free priming fluids are manufactured to AS/NZS 3879, *Solvent cements and priming fluids for use with PVC-U pipes and fittings*.

To achieve strong leak free joints tradespeople should:

- 1) Select the correct solvent cement for the application.
  - Type N – for non-pressure joints with tapered sockets complying to AS/NZS 1254.

**Table 4.1 - Solvent cement (Type N)**

Product Codes	Colour	Container size (mL)	Weight ea (kg)
JNB0250	Blue	250	0.25
JNB0500	Blue	500	0.5
JNB1000	Blue	1000	1
JNB4000	Blue	4000	4
JNC0250	Clear	250	0.25
JNC0500	Clear	500	0.5

- Type G – for non-pressure joints with parallel sockets complying to AS/NZS 1254.
- 2) Select the correct Iplex pipe and fitting.
  - 3) Follow jointing steps 1-8 carefully (Section 4.1.7). Short cuts will result in poor joints that are likely to cause system failure.

#### 4.1.1 How solvent cement works

Iplex PVC-U solvent cement is a solution of PVC resin in a mixture of solvents, which soften the surfaces when applied to PVC-U pipe and fittings. It is not a glue.

A thin uniform coat is applied to both the spigot and socket and the joint is assembled while the surfaces are still wet and fluid. The cement layers intermingle and become one. The strength of the joint develops as the solvent permeates the PVC-U and the volatile constituents evaporate.

#### 4.1.2 The importance of Iplex priming fluid

Before applying the solvent cement, it is essential to use Iplex Priming Fluid for successful jointing as the fluid not only cleans and degreases, but removes the glazed surface from PVC-U which allows the solvent cement to permeate into the wall of the pipe or fitting.

It must be applied with a clean, lint free cotton cloth. Brushing the priming fluid on or simply pouring the fluid over the pipes and fittings does not remove grease and dirt.

**Table 4.2 - Priming fluid**

Product Codes	Colour	Container size (mL)	Weight ea (kg)
JR0250	Red	250	0.25
JR0500	Red	500	0.5
JR1000	Red	1000	0.1
JR4000	Red	4000	4
JC0250	Clear	250	0.25
JC0500	Clear	500	0.5

#### 4.1.3 Average number of joints per litre of Iplex primer and solvent

For larger size pipes, a large brush should be used to apply the priming fluid and solvent cement.

**Table 4.3**

Nominal pipe size(mm)	Approx. joints per litre
75	60
90	55
100	48
150	40
225	16
300	8
375	6

#### 4.1.4 Tools required

- Appropriate PPE including but not limited to gloves, safety shoes, safety glasses, dust mask.
- Saw to cut pipe either hand or electric.
- Mitre box.
- De-burring tool or sharp edge or file to remove swarf.
- Lint free cloth, non-synthetic.
- Solvent cement and primer (usage chart can be found on Tables 4.2 and 4.3).
- Tape measure.
- Pencil.

#### 4.1.5 Storage of solvent cement and primer

- Solvent cement and priming fluids are highly flammable. In the event of fire, smother with a fire blanket or earth or use suitable fire extinguisher.
- Store solvent cements and priming fluid in a cool place away from heat, flames and sparks.
- Ensure can lids are tightly closed when not in use.
- Use solvent cements within twelve months of the date stamped on the bottom of the bottle/can. If the solvent cement has become so thick that it does not flow easily, discard.
- Do not add any other ingredients or solvents to these products.

#### 4.1.6 Safety precautions

- Do not use solvent cements or priming fluid in confined spaces without adequate ventilation, or near open flames or sparks.
- Do not smoke while using these products.
- If spilt on skin, immediately wash off with soap and water.
- If poisoning occurs, consult a doctor or Poisons Information Centre.
- Keep container sealed when not in use.
- If swallowed:

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Solvent cement	Do not induce vomiting. Call Poisons Information Centre or a doctor immediately.
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Priming fluid	Do not induce vomiting. Call Poisons Information Centre or a doctor immediately.
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- Avoid contact with eyes. If contact occurs flush with copious amounts of water.

### 4.1.7 Jointing instructions

Installers must adhere to the PIPA Industry Guideline POP102 – Solvent Cement Jointing of PVC Pipe. A summary is provided below to assist, however the full guideline should be followed.

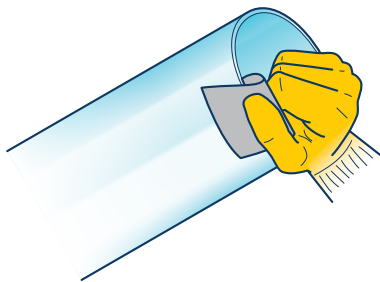
Do not work with hot pipes or on hot windy days without protecting pipes from the wind.

Keep lid on solvent cement to minimise evaporation. Do not use solvent or primer that is over 12 months old from the date stamped on bottom of bottle/can.

#### Step 1 - Cut spigot square and deburr

Cut the spigot square using a mitre box and hacksaw or power saw. Do not use a cutting disk that will melt the pipe as it will release potentially harm gas.

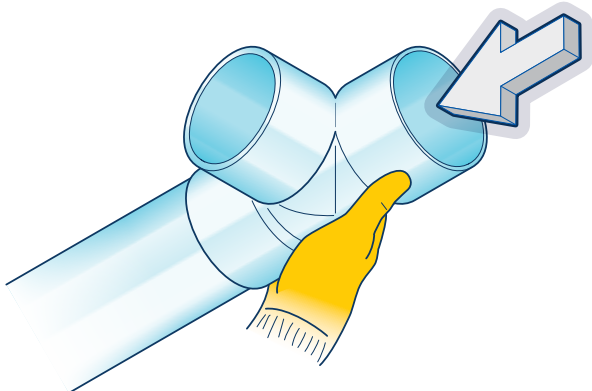
Remove all swarf and burrs from both inside and outside edges with a knife, file, reamer or sandpaper. Swarf and burrs if left, will wipe off the solvent cement and prevent proper jointing. Swarf inside pipes can catch and hold water born materials causing blockages or become dislodged and jam taps and valves. Do not roughen surfaces to be glued.



#### Step 2 - Check alignment

Check the pipe and spigot or fittings for proper alignment and placement.

The time for any adjustments is now, not later.



#### Step 3 - Mark clearly

Mark the spigot with a pencil or marker at a distance equal to the internal depth of the socket. Only use pencil or a marker. Do not score or damage the surface of the pipe or fitting.



#### Step 4 - Clean the surfaces to be glued

Thoroughly clean the inside of the socket and the area between the pencil mark and the spigot end with a clean, lint free cotton cloth dipped in priming fluid (do not use synthetic material). This removes dirt and grease and softens the PVC-U surface. Do not brush or pour the priming fluid on.

Use gloves. If contact with skin occurs, wash affected area with soap and copious quantities of water immediately.



### Step 5 - Coat socket first - then spigot

Apply a thin, uniform coat of Iplex solvent cement to the socket. Take care to ensure that solvent build up does not occur in the root of the socket - a pool of cement there will severely weaken the pipe or fitting. Now apply a uniform coat of solvent cement to the external surface of the spigot up to the pencil mark.



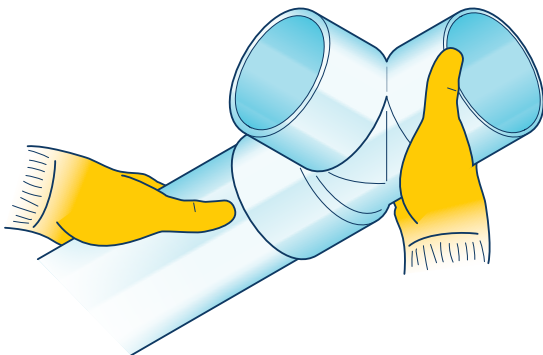
### Step 7 - A vital 5 minutes

Gently wipe off the excess solvent cement from the outside of the joint and where possible from the inside of the joint. Do not disturb the joint for at least a further five minutes as movement may break the initial bond.



### Step 6 - Assemble-hold for 30 seconds

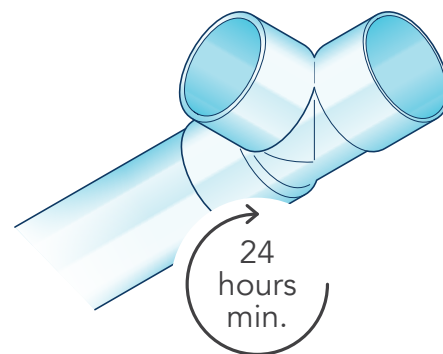
Assemble the joint quickly before the cement dries by pushing the spigot firmly into the socket as far as the pencil mark, apply a quarter turn during insertion to spread the cement evenly. Hold the joint in this position for at least thirty seconds without movement.



### Step 8 - Curing and testing

The cure time is the time taken for the joint to achieve sufficient strength to allow it to be tested using the non-pressure test procedure specified in *AS/NZS 2032 Installation of PVC Pipe Systems*.

The minimum cure time for solvent weld joints is 24 hours.



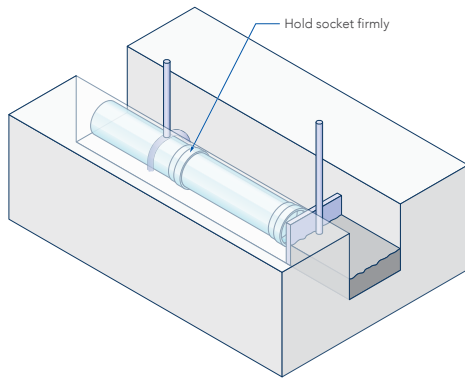
## 5.0 Installation

Stormwater pipelines rely on gravity to ensure adequate flow of fluid. Strict adherence to the designed grade along the entire pipeline is essential and the line must be maintained to specification between inspection or manhole position.

Installation of PVC-U stormwater pipelines should be fast and efficient provided the following guidelines are followed. The installer should also be familiar with *AS/NZS 2032 Installation of PVC-U Pipe Systems*, and *AS/NZS 3500.3 Plumbing & Drainage Part 3: Stormwater Drainage Standard* together with the requirements of local authorities, where applicable.

### 5.1 Below ground installation

Trenches must be excavated in accordance with plans and specifications and with reference to *AS/NZS 2032 Installation of PVC Pipes Systems*.



#### Stable condition

Stable conditions are those where, after excavation, the trench walls remain solid and do not show any signs of collapse or cave-in. Under such conditions the recommended trench widths are:

Pipe diameter (mm)	Normal width (mm)
75-100	400
150-200	600
225-300	750
375	900

#### Trench depths

The minimum trench depth should be such that pressures created by the weight of fill material plus anticipated traffic or other superimposed loads will not damage the pipes. As a guide the minimum clear cover is listed below, but refer to *AS/NZS 2032* for the latest information.

**Table 5.1**

Condition	Min. cover depth
Where not subject to vehicular loading:	300mm
Where subject to vehicular loading:	
Under driveways:	450mm
In sealed roadways:	600mm
In unsealed roadways:	750mm
In construction equipment loading:	750mm

### Laying and compaction

#### Preparing the trench

The trench bottom must be as level as possible, so that the barrel of the pipe is fully supported. The trench bottom must have sandy or loamy soil, free from rocks and stones to ensure continuous support for the pipe.

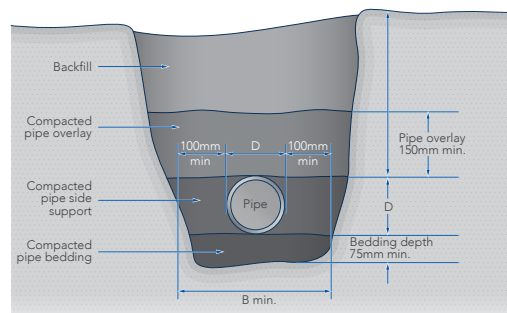
#### Wet conditions

In wet ground, sloppy working conditions can be alleviated by first placing a layer of hard granular material, or by de-watering the area in and around the trench. If patches of ground are so wet that there is a risk of subsidence and possible damage to sections of the pipeline, these areas must be consolidated by the addition of suitable fill material.

#### Trench installation

The trench must be excavated deeply enough to allow for the specified grade, the required depth of bedding, and the minimum cover over the pipe.

*AS/NZS 2032 Installation of PVC-U Pipe Systems*, suggests the following typical installation in a trench.



*AS/NZS 2032* states the following materials as suitable for bedding and overlay in the trench:

- Suitable sand, free from rock or other hard or sharp objects.
- Crushed rock or gravel of approved grading up to a maximum size of 14mm.
- Cement mortar, containing one part of cement and four parts of sand by volume, mixed with clean water to a workable consistency (bedding only).

## 5.2 Backfilling

### Use of short lengths of pipe

PVC-U pipe may be cut on site when shorter lengths are required for the installation of fittings.

The cutting of PVC-U pipe is achieved using a fine-toothed handsaw or a PVC-U pipe cutter. The position of the cut must be measured and carefully re-checked before cutting: accuracy must be exercised to ensure that the cut is square to the axis of the pipe and all burrs must be removed from the cut end before making a joint.

### Completing sitework

Once the pipe is laid in the trench backfilling can commence. Two distinct phases are involved with pipelines:

- a. backfilling prior to testing the pipeline.
- b. backfilling after testing the pipeline.

Backfilling usually follows pipe installation as closely as possible in order to protect the pipe from external damage. This eliminates the possibility of the pipe floating due to flooding of open trenches, and avoids shifting the pipe out of line due to cave-ins.

It should be remembered that the purpose of backfilling is not only to protect the pipe by covering it, but to provide firm continuous support under the pipe. Where concrete or mortar bedding has been used, the bedding has to take its initial set before overlay materials is added.

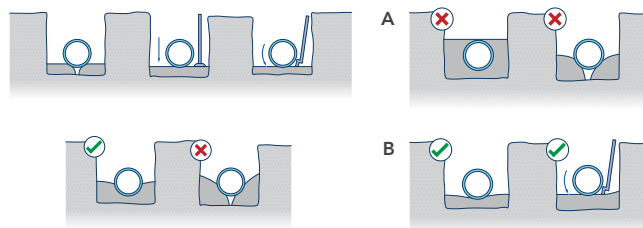
### Initial backfilling

The first step in providing firm continuous support for the pipeline is to tamp soil solidly under the entire barrel of the pipe. Care must be taken not to disturb the grade.

The embedment material must be free from stones, rock or clay. If the native, excavated soil is not suitable, then imported materials must be used for the embedment zone. The initial backfill must be placed by hand-shovel in layers not exceeding 100mm deep. Each layer must be well tamped around and under the pipeline using the long tamper illustrated below. In this way air pockets are eliminated from beneath the pipe.

The layers should be shoveled in and tamped with the process being repeated until the pipe is firmly bedded. The flat tamper illustrated is used to consolidate this fill to heights of 300mm above the top of the pipe for diameters up to 300mm.

The illustrations A and B below show the wrong and right ways of tamping the initial backfill.



**Case A**, too much soil is present, and the tamping bar cannot compact it properly leaving a void underneath the pipe.

**Case B**, shows the correct fill of a 100mm layer of soil which can be compacted to form a firm bed for the pipe.

Pipe joints must be temporarily left exposed when placing the initial backfill, to enable pressure tests to be carried out. After testing the line, backfilling and final filling must be completed.

## 5.3 Above ground installation

Above ground installation will require the use of various supports as listed below:

<b>Fixed supports</b>	<ul style="list-style-type: none"> <li>The purpose of a fixed support is to restrain all movement and to provide a fixed point in the installation.</li> </ul>
<b>Sliding supports</b>	<ul style="list-style-type: none"> <li>The purpose of a sliding support or clip is to provide a guide without restraint on axial movement of the pipe.</li> </ul>
<b>Location of supports</b>	<ul style="list-style-type: none"> <li>Refer to maximum spacing of pipe supports in Table 5.2.</li> <li>PVC-U must be supported at intervals dependent on the maximum temperature likely to be reached by the material.</li> </ul>
<b>PVC-U pipes through walls and floors</b>	<ul style="list-style-type: none"> <li>AS/NZS 2032 requires any pipe fitting built into a wall or floor must either be lagged with a suitable flexible material not less than 6mm thick, or pass through a sleeve providing an annular clear space of not less than 6mm, so as to permit the pipe to be sealed in position without restricting axial movement of the pipe.</li> <li>Additional requirements for stormwater drainage systems are defined in AS/NZS 3500.3 Plumbing Drainage Part 3: Stormwater Drainage.</li> </ul>

## Maximum spacing of pipe supports for non-pressure pipes AS/NZS 2032

Table 5.2

Nominal size of pipe (mm)	Graded pipelines (m)	Vertical pipelines (m)
32	0.90	1.80
40/50	1.00	2.00
65-150	1.20	2.50
>150	1.50	3.00

Note: Refer to the standards for the latest information.

## 5.4 Testing

### Testing stormwater pipelines

Modern construction practice is to adopt some rigorous form of acceptance test on newly constructed stormwater lines. It is usual for two separate tests to be made: one prior to backfilling and another towards the end of the job when backfilling has been completed and settled, and manholes and sidelines constructed.

The purpose of testing a non-pressure pipeline is to ensure that the line has been correctly laid to line and grade, will flow satisfactorily and is sealed at each joint and fitting.

### Downpipes within buildings

Downpipes within buildings must be free of leaks and subjected to either the water or the air test methods at pressure, as described in AS/NZS 3500.3.

### Site stormwater drains, drains within and under buildings and main internal drains

Site stormwater drains, drains within and under buildings and main internal drains must be free of leaks and subjected to either the water or the air test methods at pressure, as described in AS/NZS 3500.3.

Stormwater installations that fall outside of AS/NZS 3500.3 should be tested in accordance with the guidance given in AS/NZS 2032.

## 6.0 Frequently asked questions

### Can stormwater pipe be installed in sunlight?

Yes, refer to AS/NZS 2032.

Iplex PVC-U stormwater pipes and fittings should be protected from exposure to direct sunlight for service applications. Protection in service can include physical shading such as under or inside bridges or structures, or pale coloured U.V. resistant, water based, paint systems.

### Can I use stormwater pipe to transfer drinking water?

Australian Standards do not require stormwater pipes to be tested in use in contact with drinking water. In these applications, pipes complying with the test requirements of AS/NZS 4020 must be used. Typically, these will be pressure pipes.

### What is the flow capacity of the stormwater pipe?

Refer Tools - Hydraulic flow calculator. at [www.iplex.com.au](http://www.iplex.com.au).

### Can I concrete encase stormwater pipe?

Yes, refer to AS/NZS 2032.

### Can I run petrol through the pipe?

Generally not, but refer Design Tools - Chemical resistance chart at [www.iplex.com.au](http://www.iplex.com.au).

### What dimensions does stormwater pipe and fittings come in?

Refer Product range (page 16 onwards).

### What pressure do I test to?

Stormwater pipes systems are not pressure rated and must be tested using the procedure for non-pressure pipes in AS/NZS 2032 section 7.

### What is a safe span if installed above the ground?

Australian Standard AS/NZS 2032 provides guidance for maximum support spacing. See also Table 5.2 in Section 5.3 of this document.

### Can Iplex PVC-U stormwater pipes be painted?

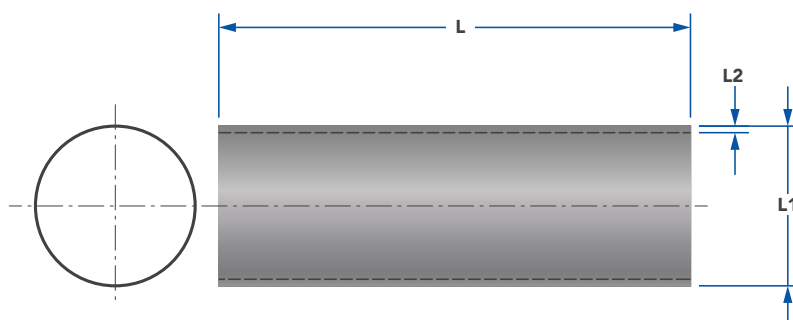
Yes, they can be painted with a water based paint.

## 7.0 Product range

### PVC-U stormwater system - pipe

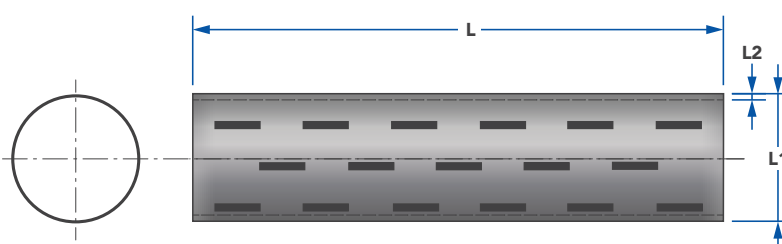
#### Stormwater pipe

Product code	DN Nominal size (mm)	Rating	Typical dimensions		
			Dim (m) L	Min.mean outside dia. (mm) L1	Typical wall thickness min. (mm) L2
WPSO75	75	SN2	6	75.0	1.6
WPSO90	90	SN2	6	90.0	1.9
WPSO90EH	90	SN4	6	90.0	2.5
WPSO90EHJAZZ	90	SN4	6	90.0	2.5
WPSO150	150	SN2	6	160.0	3.2
WPSO225	250	SN2	6	250.0	5.5
WPSO300	300	SN2	6	315.0	6.0
WPSO375	375	SN2	6	400.0	7.9



#### Slotted stormwater pipe

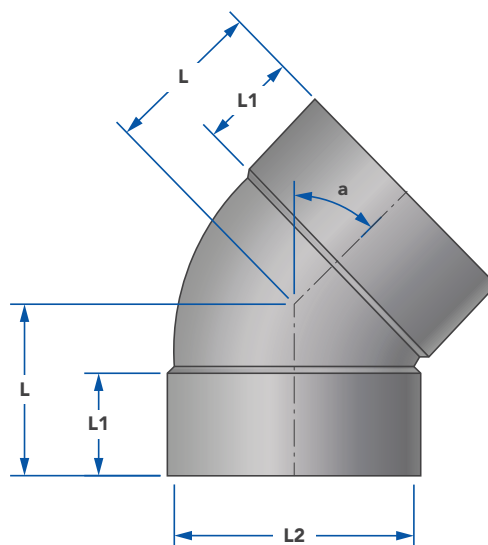
Product code	DN Nominal size (mm)	Dim. (m) L	Typical dimensions		
			Mean outside dia. Min. (mm) L1	Mean outside dia. Min. (mm) L1	Wall thickness min. (mm) L2
WPSO90SL	90	6	90.0	90.3	1.9
WPSO150SL	150	6	160.0	160.5	3.2



## Plain bend F&F

Product code	Nominal size (mm)	Angle (deg) a	Typical dimensions		
			Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2
W0027522	75	22½°	47	35	75
W0027545	75	45°	51	30	75
W0027590	75	90°	57	20	75
W0029015	90	15°	37	28	90
W0029022	90	22½°	40	28	90
W0029045	90	45°	49	28	90
W0029090	90	90°	75	28	90
W00215015	150	15°	82	64	160
W00215045	150	45°	105	64	160
W00215090	150	90°	153	64	160
W00222590	225	90°	183	100	225
W00230045	300	45°	227	125	300
W00230090	300	90°	231	125	300
W00237545	375	45°	297	160	375
W00237590	375	90°	294	160	375

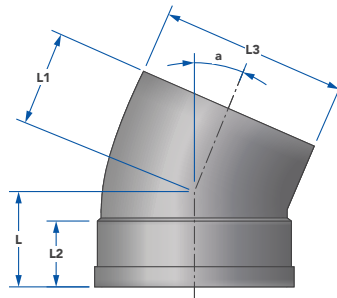
Note: All dimensions, mass and volume are approximate only. If critical contact Iplex.



## PVC-U stormwater system – fittings

### Plain bend M&F

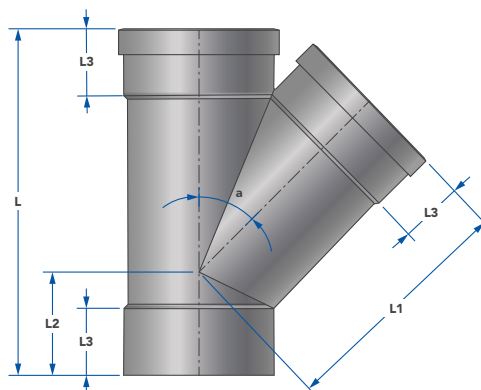
Product code	Nominal size (mm)	Angle (deg) a	Typical dimensions			
			Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3
W0037522	75	22½°	47	47	35	75
W0037545	75	45°	51	47	30	75
W0039015	90	15°	40	40	30	90
W0039022	90	22½°	44	44	30	90
W0039045	90	45°	50	52	30	90
W00315045	150	45°	105	98	64	160



### Plain junction F&F

Product code	Nominal size (mm)	Angle (deg) a	Typical dimensions			
			Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3
W0247545	75	45°	187	129	60	35
W0247590	75	90°	149	79	73	35
W0249045	90	45°	193	143	50	30
W0249090	90	90°	146	73	73	28
W02415045	150	45°	358	261	98	64
W02415090	150	90°	292	146	146	64

Note: For larger sizes refer to DWV Plain junction.

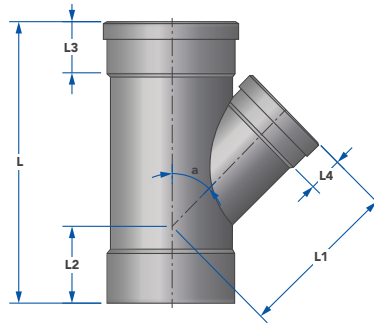


## Reducing junction F&F

### Typical dimensions

Product code	Nominal size (mm)	Angle (deg) a	Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3	Dim. (mm) L4
W025151045	150x100	45°	358	212	98	64	44

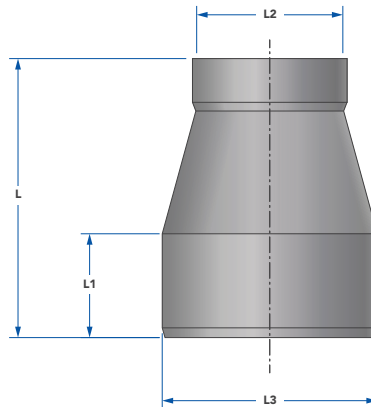
Note: For larger sizes refer to DWV Reducing junction.



## Adaptor stormwater sewer

### Typical dimensions

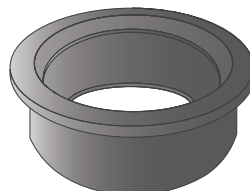
Product code	Nominal size (mm)	Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3
W04175100	75x100	135	50	75	110
W04190100	90x100	109	52	90	110



## Stormwater rubber insert

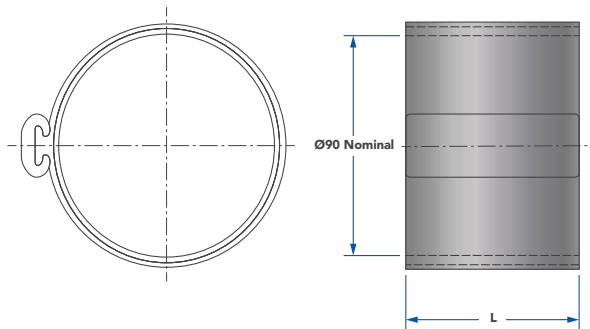
Product code	Nominal size (mm)
W05100	100mm rubber insert for stormwater

Note: All dimensions, mass and volume are approximate only. If critical contact Iplex.



## Pipe repair kit

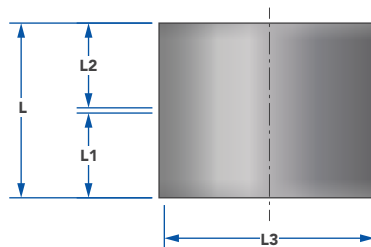
Product code	Typical dimensions	
	Nominal size (mm)	Dim. (mm) L
W05690	90	73



## Straight coupling plain

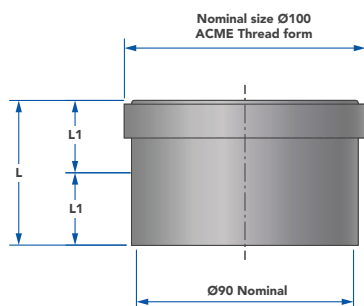
Product code	Nominal size (mm)	Typical dimensions			
		Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3
W05775*	75	67	30	30	75

Note: \*W05775 is a plain/repair coupling.



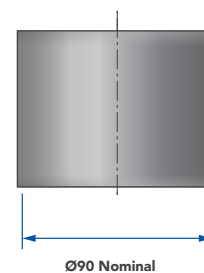
## Threaded/repair coupling

Product code	Typical dimensions		
	Nominal size (mm)	Dim. (mm) L	Dim. (mm) L1
W05890	90	56	29



## 90mm slip repair coupling

Product code	Nominal size (mm)
W711S90	90

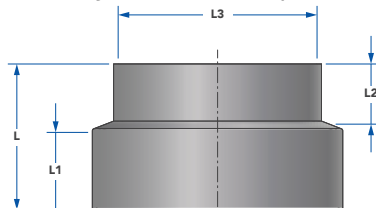


## Reducing coupling

### Typical dimensions

Product code	Nominal size (mm)	Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3	Dim. (mm) L4
W0619075	90x75	53	29	21	75	90

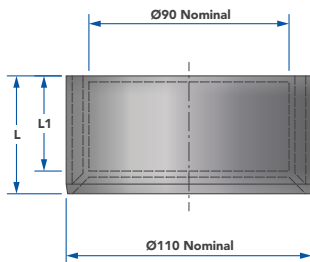
Note: All dimensions, mass and volume are approximate only. If critical contact Iplex.



## Reducing bush stormwater to sewer

### Typical dimensions

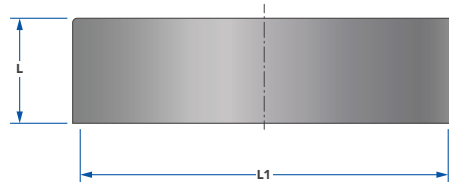
Product code	Nominal size (mm)	Dim. (mm) L	Dim. (mm) L1
W07390100	100x90	51	41



## Push on cap

### Typical dimensions

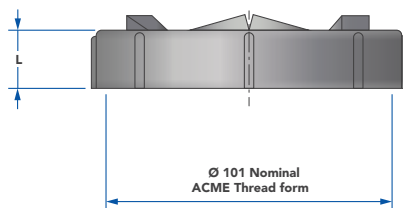
Product code	Nominal size (mm)	Dim. (mm) L	Dim. (mm) L1
W10575	75	21	75
W10590	90	32	90



## Threaded cap

### Typical dimensions

Product code	Nominal size (mm)	Dim. (mm) L
W10990	90	20

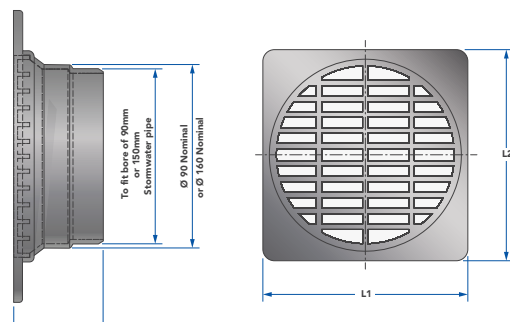


## Stormwater grate

### Typical dimensions

Product code	Nominal size (mm)	Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2
W15590	90	45	105	105
W155150	150	78	210	210

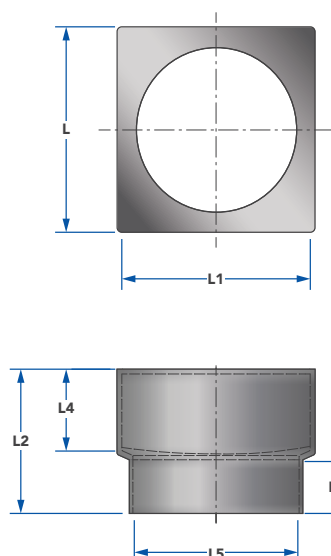
Note: All dimensions, mass and volume are approximate only. If critical contact Iplex.



## Downpipe adaptor – rectangular

Product code	Typical dimensions						
	Nominal size (mm)	Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3	Dim. (mm) L4	Dim. (mm) L5
W160755050	75x50x50	56	56	125	45	37	75
W160758050	75x80x50	83	53	73	30	39	75
W160758080	75x80x80	80	80	135	38	40	75
W160751050	75x100x50	55	106	92	30	50	75
W160751080	75x100x80	80	100	145	38	40	75
W160751010	75x100x100	106	106	125	20	40	75
W160908050	90x80x50	84	55	97	30	51	90
W160908080	90x80x80	80	80	120	60	40	90
W160901050	90x100x50	106	55	75	29	40	90
W160901065	90x100x65	65	106	97	30	50	90
W160901080	90x100x80	106	80	75	29	40	90
W160901010	90x100x100	106	106	75	29	40	90
W160101050	100x100x50	105	54	170	60	62	110
W160101080	100x100x80	105	80	125	35	60	110
W160101010	100x100x100	106	106	86	41	40	110
W160101510	100x150x100	105	150	205	55	45	110
W160161510	160x150x100	105	150	220	100	50	160
W160161515	160x150x150	150	150	220	100	85	160

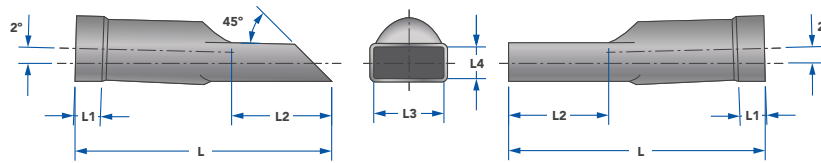
Note: All dimensions, mass and volume are approximate only. If critical contact Iplex.



## Kerb adaptor

### Typical dimensions

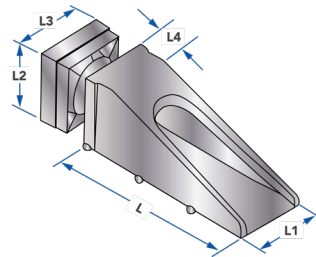
Product code	Nominal size (mm)	Dim. (mm)				
		L	L1	L2	L3	L4
W16090KA	90 Kerb Adaptor	380	40	150	104	48
W16090SKA	90 Kerb Adaptor(Sloped)	380	40	150	104	48
W160100KA	100 Kerb Adaptor	380	50	180	128	48



## Aluminium kerb adaptor

### Typical dimensions

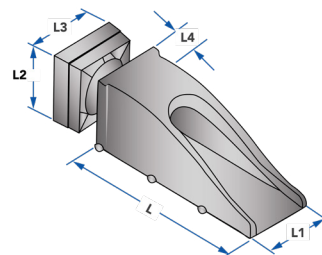
Product code	Dim. (mm)				
	L	L1	L2	L3	L4
ZLAYBACK	225	105	105	105	50



## PVC rolover kerb adaptor

### Typical dimensions

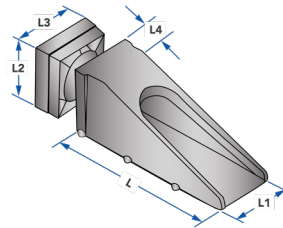
Product code	Dim. (mm)				
	L	L1	L2	L3	L4
ZLAYBACKAE3	300	100	105	100	50



## PVC kerb adaptor

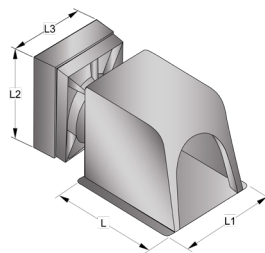
Product code	Typical dimensions				
	Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3	Dim. (mm) L4
ZLAYBACKAE1	310	135	135	135	35

Note: All dimensions, mass and volume are approximate only. If critical contact Iplex.



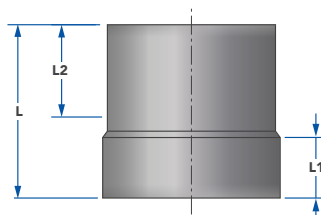
## PVC upright kerb adaptor

Product code	Typical dimensions			
	Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3
ZBARRIER	150	135	135	135



## Downpipe adaptor - round

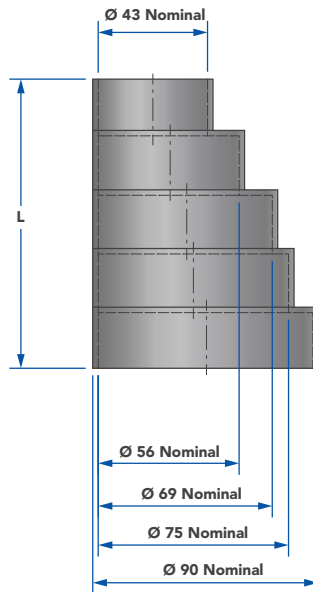
Product code	Nominal size (mm)	Typical dimensions		
		Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2
W1619050V	150	74	30	32
W1619065V	90x65	82	30	40
W1619080V	90x80	88	30	47
W16190100V	90x100	93	53	30
W16190150V	90x150	209	98	41



## Multi-pipe adaptor

Product code	Nominal size (mm)	Typical dimensions	
		Dim. (mm)	L
W161907654	90x75x65x50x40	111	

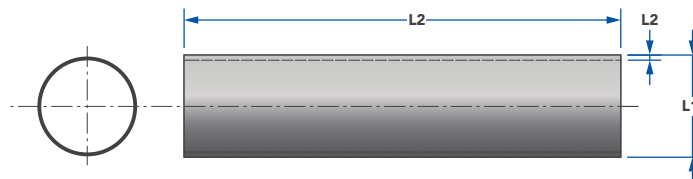
Note: All dimensions, mass and volume are approximate only. If critical contact Iplex.



## PVC-U stormwater system - rainwater

### Rainwater downpipe

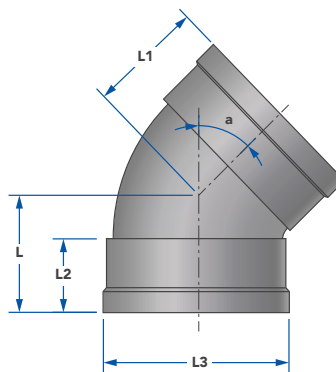
Product code	DN Nominal size (mm)	Rating	Typical dimensions		
			Dim. (m)	Min.mean outside dia (mm)	Typical wall thickness min.(mm)
			L	L1	L2
RDP075	75	N/A	3	75	1.6



## Rainwater plain bend (round)

Typical dimensions

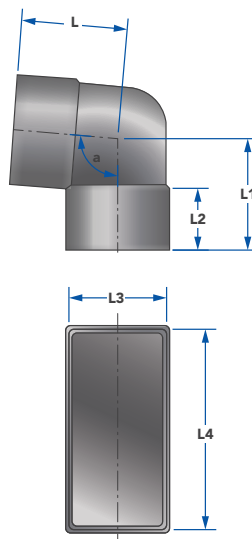
Product code	Nominal size (mm)	Angle (deg)	Dim. (mm)	Dim. (mm)	Dim. (mm)	Dim. (mm)
		a	L	L1	L2	L3
R0027522	75	22	47	47	35	75
R0027545	75	45	51	51	30	75
R0027590	75	90	57	20	30	75
R0029090	90	90	75	75	28	90



## Rainwater plain bend (rectangle)

Typical dimensions

Product code	Nominal size (mm)	Angle (deg)	Dim. (mm)	Dim. (mm)	Dim. (mm)	Dim. (mm)	Dim. (mm)
		a	L	L1	L2	L3	L4
R002105045	100x50	45	46	46	32	55	105
R002105095	100x50	95	59	59	32	55	105

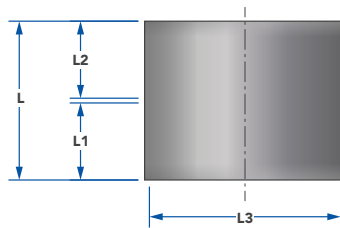


### Rainwater coupling (round)

#### Typical dimensions

Product code	Nominal size (mm)	Dim. (mm)	Dim. (mm)	Dim. (mm)	Dim. (mm)
		L	L1	L2	L3
R05775	75	67	30	30	75

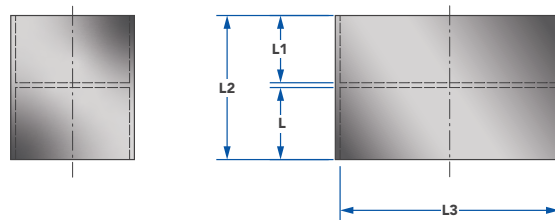
Note: All dimensions, mass and volume are approximate only. If critical contact Iplex.



### Rainwater coupling (rectangle)

#### Typical dimensions

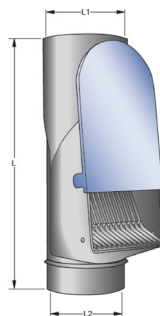
Product code	Nominal size (mm)	Dim. (mm)	Dim. (mm)	Dim. (mm)	Dim. (mm)
		L	L1	L2	L3
R05710050	100x50	32	31	66	106



### Leaf separator

#### Typical dimensions

Product code	Nominal size (mm)	Dim. (mm)	Dim. (mm)	Dim. (mm)
		L	L1	L2
R157090	90	325	110	102

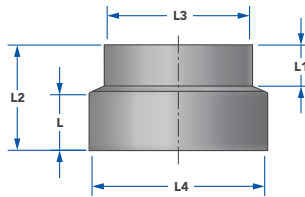


### Rainwater adaptor (round)

#### Typical dimensions

Product code	Nominal size (mm)	Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3	Dim. (mm) L4
R1617590	75x90	29	21	53	75	90
R1617590	75x90	29	21	53	75	90

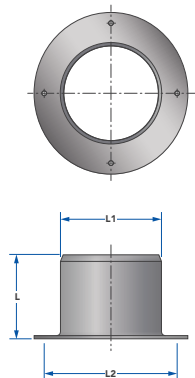
Note: All dimensions, mass and volume are approximate only. If critical contact Iplex.



### Rainwater gutter pop (round)

#### Typical dimensions

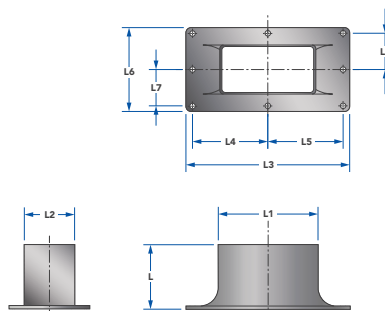
Product code	Nominal size (mm)	Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2
R18075	75	60	75	100



### Rainwater gutter pop (rectangle)

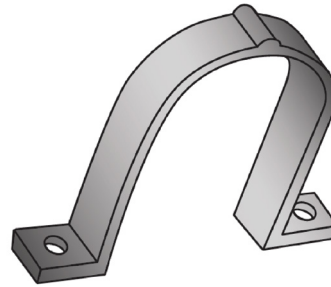
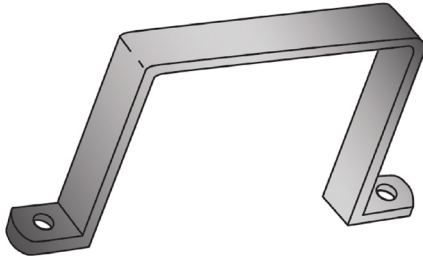
#### Typical dimensions

Product code	Nominal size (mm)	Dim. (mm) L	Dim. (mm) L1	Dim. (mm) L2	Dim. (mm) L3	Dim. (mm) L4	Dim. (mm) L5	Dim. (mm) L6	Dim. (mm) L7	Dim. (mm) L8
R18010050	100x50	64	99	49	165	77	77	82	35	35



### Rainwater clip

Product code	Nominal size (mm)	Product code	Nominal size (mm)
W10990	90	R18510050	100x50



### PVC-U stormwater system - jointing material

#### Solvent cement non-pressure (blue)

Product code	Size
JNB0125	125ml
JNB0250	250ml
JNB0500	500ml
JNB1000	1 litre
JNB4000	4 litre

#### Solvent cement non-pressure (clear)

Product code	Size
JNC0250	250ml
JNC0500	500ml

#### Priming fluid (red)

Product code	Size
JR0250	250ml
JR0500	500ml
JR1000	1litre
JR4000	4litre

Note: When assembling and installing Iplex PVC pipes and fittings, Iplex solvent cement and priming fluids should be used. All dimensions, mass and volume are approximate only. If critical contact Iplex.

