ASTORE

Installer guide

Installation tips and jointing procedure

The solvent cement operates by chemically softening the outside of the pipe and the inside of the fitting. Joint integrity is greatly reduced if these surfaces are not absolutely clean and properly prepared.

Safety information

- Ensure the area is well-ventilated
- **Do not** use near naked flames
- **Do not** smoke in the working area
- **Do not** use in confined spaces
- **Do not** joint in the rain or wet conditions
- **Do not** use dirty brushes
- **Do not** use dirty or oily cleaning cloths
- **Do not** use the same brushes for different cements
- **Do not** dilute or decant Astore solvent cement
- Follow safety instructions on Astore solvent cement and Eco-cleaner containers
- Always wear appropriate personal protective equipment

Step 1 – Cut pipe to length using a rotary plastic pipe cutter as shown. Where possible clamp the pipe in a vice, avoiding excessive distortion. The pipe must be cut square. The use of a rotary pipe cutter is preferred over the use of a hacksaw as the finish is clean, leaving no loose swarf or burr on the pipe. If a saw is used, it is essential that all burrs and loose materials are removed.

Step 2 – Chamfer the pipe, approximately 3mm x 45°. This prevents the solvent cement layer being scraped from the surface of the fitting when the joint is assembled.

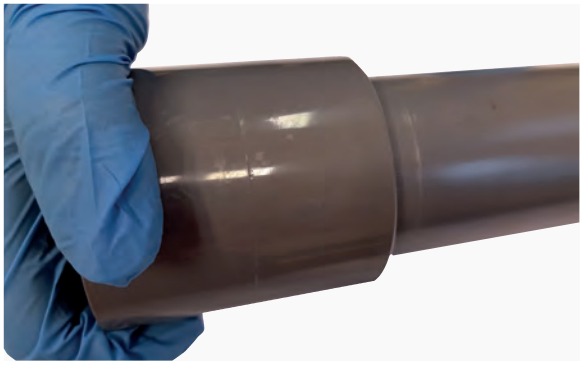
Step 3 – Measure the insertion depth of the fitting. Make two marks on the pipe; a) the insertion depth b) 20mm longer than the insertion depth.

Measurement "b" should be used to check that the pipe is fully inserted into the socket after assembly.

Step 4 – Thoroughly clean the surface of the pipe length to be inserted using a clean, lint free cloth or paper towel, moistened with Astore Eco-cleaner.

Repeat the cleaning process on the inside of the fitting.

Step 5 – Using a clean brush and working quickly, apply the Astore solvent cement to the pipe and fitting using longitudinal strokes. The insertion depth area should be completely covered with the cement. The amount required will vary with pipe diameter and the fit between pipe and fitting. Ensure that the cement is still liquid when pipe and fitting are assembled.



Step 6 – Immediately after application of cement, push pipe fully home into fitting. Do not twist. Hold pipe & fitting for times varying from a few seconds on sizes 1/2", to 1 minute on sizes 5" and above. It is important to create the joint swiftly, to enable assembly without excessive force being required.

Application of correct amount of cement will result in a neat bead at edge of fitting & pipe. Excessive deposits inside fittings must be avoided as these can weaken the pipe wall, particularly on small sizes. When working in cold conditions, ensure joints are free from frost & moisture and allow extra curing time to compensate for lower temperatures.

Step 7 – Wipe off excess cement from the outside of the joint. Joint drying time will vary due to fit, amount of solvent cement applied, ambient temperature & working pressure. See below for detailed information.

Drying times

The following drying times are recommended:

- Minimum 24 hours for sizes up to 6”/160mm.

If the system needs to be put into service sooner, the following safe working guide can be used as long as:

- Ambient temperature is between 10-40 °C
- Fluid temperature does not exceed 20 °C
- Minimum drying period must be at least 1 hour

Size range	Up to 2.5” /75mm	3” to 4” /90mm to 125mm	5” & 6” /140mm & 160mm
Drying time ABS	0.5 hour /bar	1.0 hour /bar	1.5 hours /bar
Drying time PVC-U	1.0 hour /bar	1.0 hour /bar	1.5 hours /bar

Step 8 – Using measurement b (see point 3), check that the pipe has been fully inserted.

Step 9 – Do not disturb the joint for at least 10 minutes after assembly. On larger sizes do not subject the joint to bending or twisting forces for at least 4 hours (see below). When making subsequent joints, which can be done without waiting, take care not to transmit forces to freshly made joints in the system.

Important: **Allow minimum drying time prior to pressurisation of the system.**

Step 10 – Replace lids on all containers.

Notes

1. The integrity of Astore systems may be affected if Astore solvent cement and Astore Eco-cleaner are not used. Astore disclaims responsibility for any Astore system constructed with any other cement or not fabricated in accordance with the instructions herein.

2. To achieve the correct speed of application on sizes 5"/140mm and above, cement should be applied simultaneously to pipe and fitting, by two people.

Solvent cement usage

An indication of the number of joints to be made per litre of cement is as follows:

Size mm	Size inch	Recommended container size	Joints per litre ABS	Joints per litre PVC-U
20–32	3/8–1	0.5 litre	400	300
40–63	1 1/4–2	0.5 litre	200	120
75–110	2 1/2–4	0.5 litre	70	50
125–140	5	1 litre	20	15
160	6	1 litre	10	8

Astore chemical resistance

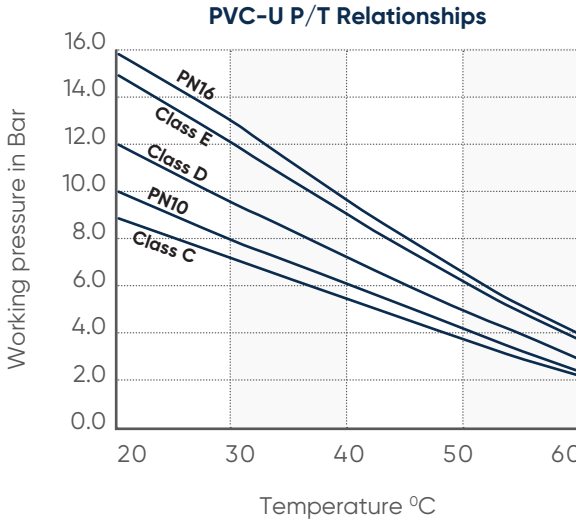
If you plan to transfer strong acids or alkalis through Astore pipework, please request advice regarding feasibility and grade of solvent cement and cleaner. **www.aliaxis.co.uk/chemicalguide**

Maximum pressure/ temperature relationship

PVC-U

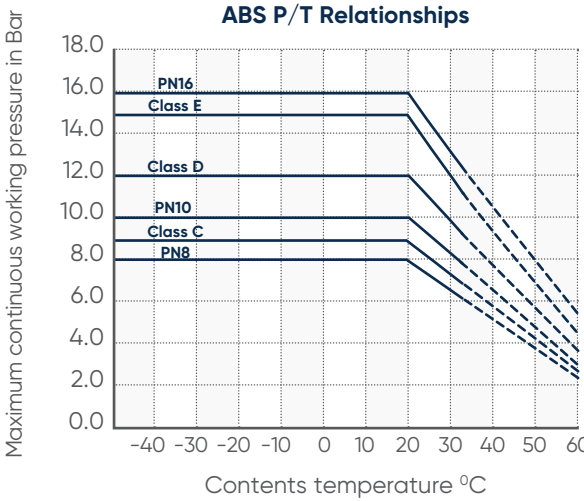
1. Graph is based on an ambient temperature of 20°C
2. For higher ambient temperatures decrease the working pressure by 5% for every 10°C above 20°C ambient

3. Astore PVC-U systems should not be used at temperatures in excess of +60°C or below 0°C



ABS

When temperature of content exceeds 20°C the working pressure of the system must be reduced accordingly (see table below).



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