Set Up/Curing Times

The set up/cure time is dependent on several factors. The pipe size, socket fit, ambient temperature, relative humidity, solvent cement used and the system operating pressure should all be considered when determining set up/cure times.

Average Handling/Set Up Times for PVC/CPVC Solvent Cements

Handling/Set Up Time is the time required prior to handling the joint. In damp or humid weather, allow 50% additional time.

These figures should only be used as a general guide. Conditions in the field may vary.

Temperature during assembly	60º - 100ºF	40º - 60ºF	20º - 40ºF	0º - 20ºF
Pipe Diameter ½" to 1-¼"	2 minutes	5 minutes	8 minutes	10 minutes
Pipe Diameter 1-½" to 3"	5 minutes	10 minutes	12 minutes	15 minutes
Pipe Diameter 4" to 5"	15 minutes	30 minutes	60 minutes	2 hours
Pipe Diameter 6" to 8"	30 minutes	90 minutes	3 hours	6 hours
Pipe Diameter 10" to 16"	2 hours	8 hours	12 hours	24 hours
Pipe Diameter 18"+	4 hours	16 hours	24 hours	48 hours

Average Number Of Joints Per Quart of Solvent Cement

These figures are estimates based on laboratory testing. Conditions in the field may vary.

Pipe Diameter	½"	¾"	1"	1-¼"	1-½"	2"	3"	4"	6"	8"	10"	12"	15"	18"
Number Of Joints	350	275	200	175	150	80	60	40	20	10	6	3	1	½

Average Joint Cure Times for PVC/CPVC Solvent Cements

Joint cure time is the time required before pressure testing the system. In damp or humid weather allow 50% additional cure time.

Relative Humidity 60% or less		Temperature during assembly or cure period			
		60º - 100ºF	40º - 60ºF	20º - 40ºF	0º - 20ºF
Pipe Diameter ½" to 1-¼"	Up to 180 psi	1 Hour	2 Hours	6 Hours	8 Hours
	180 psi +	6 Hours	12 Hours	36 Hours	48 Hours
Pipe Diameter 1-½" to 3"	Up to 180 psi	2 Hours	4 Hours	12 Hours	16 Hours
	180 psi +	12 Hours	24 Hours	72 Hours	96 Hours
Pipe Diameter 4" to 5"	Up to 180 psi	6 Hours	12 Hours	36 Hours	48 Hours
	180 psi +	18 Hours	36 Hours	4 Days	8 Days
Pipe Diameter 6" to 8"	Up to 180 psi	8 Hours	16 Hours	3 Days	4 Days
	180 psi +	24 Hours	48 Hours	9 Days	12 Days
Pipe Diameter 10" to 16"	Up to 100 psi	24 Hours	48 Hours	8 Days	10 Days
Pipe Diameter 18"+	Up to 100 psi	36 Hours	72 Hours	12 Days	14 Days

This chart can be used as a guideline to determine joint cure time. These figures should only be used as a general guide. Conditions in the field may vary.

Disclaimer: The above data is applicable only for new piping installations and not recommended for repair or cut-ins on hot and cold water distribution systems. Please contact Oatey Technical Service for recommendations on Cure Times for such applications.

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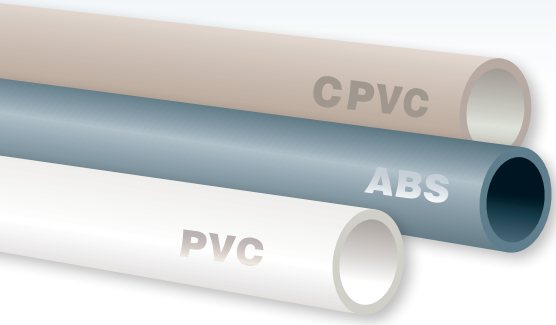
Oatey® Solvent Cements

How to Solvent Weld



Pipe Types

CPVC: Chlorinated Poly Vinyl Chloride – Typically used for pressure piping applications, including hot and cold potable water distribution. Can also be used for corrosive fluid handling in industrial or chemical applications.

ABS: Acrylonitrile Butadiene Styrene – Typically used for non-pressure piping applications.

PVC: Poly Vinyl Chloride – Typically used for pressure or non-pressure piping applications.

Solvent Cements for any Application

If you need to solvent weld one pipe joint or one thousand, Oatey is the solvent cement more professionals choose than any other brand. From hot to cold, wet to dry, Oatey has the solvent cement to meet your exact requirement for any plastic pipe installation.

Product Development

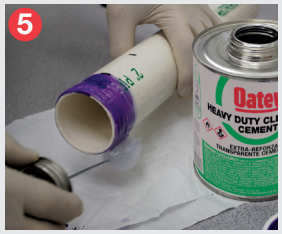
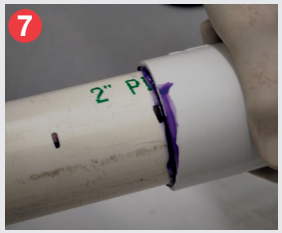
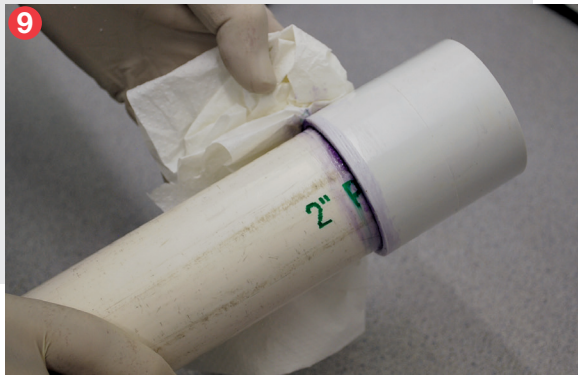
Oatey Solvent Cements are developed with the plumbing contractor in mind. Extensive research and product development provide you peace of mind and confidence when using Oatey brand solvent cements. In addition, no company works as hard as Oatey on behalf of the professional plumber with regulatory and coding agencies.

How To Solvent Weld

Prior To Use:

Read all product labels carefully.

Stir or shake cement before using. If jelly-like, do not use. Keep container closed when not in use. Avoid eye and skin contact. Wear safety glasses with side shields and wear rubber gloves.

1. Square pipe ends, chamfer and remove all dirt.
2. Check dry fit of pipe and fitting. Pipe should easily go 1/3 of the way into the fitting. If pipe bottoms, it should be snug.
3. Use a suitable applicator at least 1/2 the size of the pipe diameter. For larger size pipe systems use a natural bristle brush or roller.
4. Clean pipe and fitting with a listed primer.
   (Do not use primer on ABS pipe and fittings.
   Use Clear Cleaner only!)
5. Apply liberal coat of cement to pipe to the depth of the socket, leave no uncoated surface.
6. Apply a thin coat of cement to inside of fitting, avoid puddling of cement. Puddling can cause weakening and premature failure of pipe or fitting. Apply a second coat of cement to the pipe.
7. Assemble parts QUICKLY. Cement must be fluid. If cement surface has dried, recoat both parts.
8. Push pipe FULLY into fitting using a 1/4 turning motion until pipe bottoms.
9. Hold pipe and fitting together for 30 seconds to prevent pipe push-out – longer at low temperatures. Wipe off excess.
10. Allow 15 minutes for good handling strength and 2 hours cure time at temperatures above 60°F before pressure testing up to 180 psi. Longer cure times may be required at temperatures below 60°F or with pipe above 3". DO NOT TEST WITH AIR.

For specialty cements and chemical applications please see specific product label instructions.