

HOW TO SOLVENT WELD



Pipe Types

CPVC: Chlorinated Polyvinyl 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: Polyvinyl 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.

Solvent Cement Cure Times

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

Oatey Solvent Cements are developed with the plumbing contractor in mind. New products like **Orange Lava Hot CPVC Cement** have the lowest set up and cure times in the industry, a perfect fit for any job requiring minimal downtime.

Oatey continues to work hard to provide you peace of mind and confidence when using Oatey brand solvent cements and products.

Cure chart see page 33

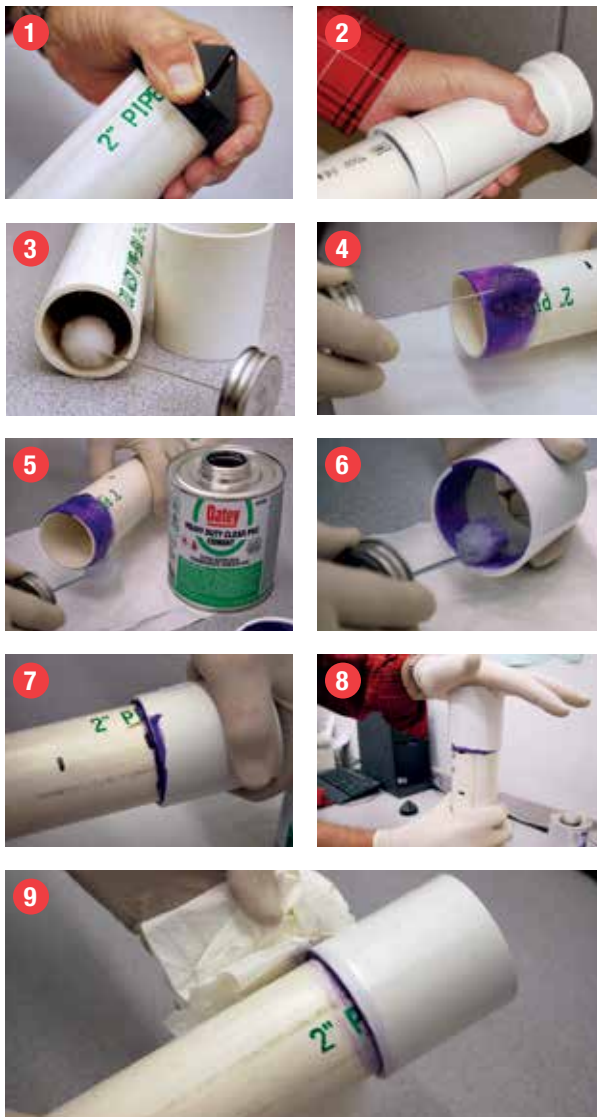
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PRIOR TO USE: Read all product labels carefully.

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.



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.

PVC & ABS				
Pipe Diameter	Temperature during assembly and cure period			
	60°-100°F 16°-38°C	40°-60°F 4°-16°C	20°-40°F -7°-4°C	0°-20°F -18°- -7°C
1/2" to 1-1/4" 13 to 32mm	2 min	5 min	8 min	10 min
1-1/2" to 3" 40 to 80mm	5 min	10 min	12 min	15 min
4" to 5" 100 to 125mm	15 min	30 min	60 min	2 hrs
6" to 8" 150 to 200mm	30 min	90 min	3 hrs	6 hrs

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.

Contact Oatey Technical Services for set up times for pipe larger than 8" diameter.

Pipe Diameter	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	3"	4"	6"	8"
Number Of Joints	325	250	150	125	90	70	50	30	10	8

Average Number of Joints Per Quart of Solvent Cement

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

PVC & ABS						
Pipe Diameter		Temperature during assembly and cure period				
		60°-100°F 16°-38°C	40°-60°F 4°-16°C	20°-40°F -7°-4°C	0°-20°F -18°- -7°C	
1/2" to 1-1/4" 13 to 32mm	Up to 180 psi	15 min	20 min	30 min	Please contact Oatey Technical Services for cure time information	
	180 psi +	4 hrs	8 hrs	36 hrs		
1-1/2" to 3" 40 to 80mm	Up to 180 psi	30 min	45 min	60 min		
	180 psi +	8 hrs	16 hrs	72 hrs		
4" to 5" 100 to 125mm	Up to 180 psi	2 hrs	4 hrs	36 hrs		
	180 psi +	12 hrs	24 hrs	4 days		
6" to 8" 150 to 200mm	Up to 180 psi	8 hrs	16 hrs	3 days		
	180 psi +	24 hrs	48 hrs	9 days		

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.

Contact Oatey Technical Services for cure times for pipe larger than 8" diameter.

This 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.

DO NOT test PVC and CPVC piping systems with compressed air or gas.

Notes: Cure schedule is the time required before pressure testing the system

- This chart can be used as a guideline to determine joint cure
- Cure times stated are for conditions with relative humidity of 60% or less
- In damp or humid weather allow 50% additional cure time

CPVC						
Pipe Diameter		Temperature during assembly and cure period				
		60°-100°F 16°-38°C	40°-60°F 4°-16°C	20°-40°F -7°-4°C	0°-20°F -18°- -7°C	
1/2" to 1-1/4" 13 to 32mm	Up to 180 psi	1 hr	2 hrs	Please contact Oatey Technical Services for cure time information		
	180 psi +	6 hrs	12 hrs			
1-1/2" to 3" 40 to 80mm	Up to 180 psi	2 hrs	4 hrs			
	180 psi +	12 hrs	24 hrs			
4" to 5" 100 to 125mm	Up to 180 psi	6 hrs	12 hrs			
	180 psi +	18 hrs	36 hrs			
6" to 8" 150 to 200mm	Up to 180 psi	8 hrs	16 hrs			
	180 psi +	24 hrs	48 hrs			