



# Solvent Cements

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cure charts



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## PVC

PVC piping systems are used for many applications including DWV (Drain, Waste and Vent), potable water systems, process pipe and sewer pipe. It is the most widely used type of plastic pipe. PVC pipe is very durable and can be used for applications up to 140°F.

## CPVC

CPVC piping systems are used for a wide range of jobs. Copper tube size (CTS) CPVC pipe is designed for use in hot and cold potable water distribution systems. It can be used for residential applications, hotels and light commercial buildings. CTS pipe is very durable and can be used for applications up to 180°F. Larger diameter Schedule 80 CPVC piping systems can be used for applications up to 200°F. CPVC pipe is specially formulated to handle more corrosive materials and withstand higher internal pressure.

## ABS

ABS pipe is primarily used for DWV (drain, waste and vent) applications in North America. ABS pipe is very durable and can be used for applications up to 140°F.

## Primer & Cleaners






Primers and cleaners are important pieces of the solvent cementing process and primers are required by building codes for most applications. They help to prepare the pipe and fitting for solvent cementing by cleaning and softening the pipe and fitting making sure that the final joint integrity is maximized. For most cases, a cleaner should be used, followed by a primer and then the solvent cement. Additionally, after application of the primer, the solvent cement should be applied immediately before the primer dries. Note that primers should not be used for ABS pipe and that cleaner should be used in its place.



Check out our  
Solvent Cement App for  
the iPhone and Droid.



# Product Selection Guide

Body	Product Name	Color	Max Nominal Pipe Size		One Step Cement	Recommended Applications							Oatey Product Number					
			Schedule 40	Schedule 80		Potable Water	Drain, Waste & Vent	Sewer	Hot Water (180°F)	Industrial	Max Service Temp	Recommended Application Temperature	4oz	8oz	16oz	32oz	1 gal.	
<b>PVC</b> 	Regular	Regular Advanced	Clear	4"	2"		✓	✓	✓			140°F	40° to 110°F	31925	31926	31927	31928	31929
		Regular Clear	Clear	4"	2"		✓	✓	✓			140°F	40° to 110°F	31012	31013	31014	31015	31016
		Regular Clear Industrial	Clear	4"	2"		✓	✓	✓		✓	140°F	40° to 110°F	-	-	31024	31025	-
	Medium	Medium Clear	Clear	6"	6"		✓	✓	✓		✓	140°F	40° to 110°F	31017	31018	31019	31020	31021
		Medium Gray	Gray	6"	6"		✓	✓	✓		✓	140°F	40° to 110°F	30883	30884	30885	30886	30887
		Hot Weather Plus™	Clear	6"	6"		✓	✓	✓			140°F	40° to 110°F	-	31936	31937	31938	-
		All-Weather	Clear	6"	6"		✓	✓	✓			140°F	40° to 110°F	-	-	31132	31133	31135
	Heavy Duty	Flexible	Green	6"	6"							140°F	40° to 110°F	30875	-	-	30879	-
		Heavy Duty Clear	Clear	12" 18" (non-pressure)	12"		✓	✓	✓		✓	140°F	40° to 110°F	30850	30863	30876	31008	31011
	Heavy Duty	Heavy Duty Gray	Gray	12" 18" (non-pressure)	12"		✓	✓	✓		✓	140°F	40° to 110°F	31093	31094	31095	31105	31118
		Extra HD	Extra HD Gray	Gray	30"	30"		✓	✓	✓	✓	140°F	40° to 110°F	-	-	-	30343	30344
	Hot Cements	Rain-R-Shine®	Blue	6"	6"	✓	✓	✓	✓			140°F	40° to 110°F	30890	30891	30893	30894	30895
		Blue Lava	Blue	6"	6"	✓	✓	✓	✓			140°F	40° to 110°F	32160	32161	32162	32163	32164
Heavy Duty Fast Set		Gray	18"	18"	✓	✓	✓	✓		✓	140°F	40° to 110°F	-	-	31121	31122	31123	
<b>CPVC</b> 	Medium	FlowGuard Gold®	Gold	2" CTS	-	✓	✓	✓	✓	✓	180°F	0° to 110°F	31910	31911	31912	31913	31914	
		FlowGuard Gold UVI	Gold	2" CTS	-	✓	✓	✓	✓	✓	180°F	0° to 110°F	-	31917	31918	31919	-	
		Medium Orange	Orange	6"	6"		✓	✓	✓	✓		180°F	40° to 110°F	31128	31129	31130	31131	31127
	Heavy Duty	Heavy Duty Gray	Gray	12"	12"		✓	✓	✓	✓	✓	180°F	40° to 110°F	-	-	31036	31037	-
		Heavy Duty Orange	Orange	12"	12"		✓	✓	✓	✓	✓	180°F	40° to 110°F	-	-	31082	31083	31084
		Heavy Duty Industrial	Gray	12"	12"		✓	✓	✓	✓	✓	180°F	40° to 110°F	-	-	30328	30329	30330
		Heavy Duty Industrial	Orange	12"	12"		✓	✓	✓	✓	✓	180°F	40° to 110°F	-	-	30331	30332	-
Hot Cement	Orange Lava	Orange	4"	4"	✓	✓	✓	✓	✓	180°F	40° to 110°F	-	32166	32167	32168	-		
<b>ABS</b> 	Medium	Medium	Black	8"	-		✓	✓			140°F	40° to 110°F	30999	30889	30892	30902	30915	
		Extra Special	Black	8"	-			✓	✓			140°F	40° to 110°F	30916	30917	30918	30919	30920
		Milky clear	Milky Clear	8"	-			✓	✓			140°F	40° to 110°F	-	-	30922	30923	30924
<b>Speciality</b> 	Medium	All-Purpose	Milky Clear	6"	6"			✓	✓	✓		180°F	40° to 110°F	30818	30821	30834	30847	30848
	Medium	Transition (ABS to PVC)	Green	6"	-			✓	✓			140°F	40°-110°F	30900	-	30925	30926	-
<b>Primers &amp; Cleaners</b> 	Primer	NSF Primer	Purple	all	all		✓	✓	✓			180°F	-15° to 110°F	30755	30756	30757	30758	30759
			Clear	all	all		✓	✓	✓			180°F	-15° to 110°F	30750	30751	30752	30753	30754
	Primer	Industrial Primer	Purple	all	all		✓	✓	✓	✓		180°F	-15° to 110°F	-	-	30770	30771	30772
			Clear	all	all		✓	✓	✓	✓		180°F	-15° to 110°F	-	-	30773	30774	30775
	Cleaner	Cleaner	Clear	all	all		✓	✓	✓			180°F	-15° to 110°F	30779	30782	30795	30805	30766
Primer Cleaner	Primer Cleaner	Purple	all	all		✓	✓	✓	✓		180°F	-15° to 110°F	30780	30783	30796	30806	30768	

FlowGuard Gold® is a registered trademark of the Lubrizol Corporation.

# Solvent Cement Accessories

Category	Description / Size		Product Number	Carton Qty	
Applicators	Daubers	4oz Can	3/4" Ball	31299	48
		8oz Can	3/4" Ball	31309	48
		16oz Can	1-1/2" Ball	31310	48
		32oz Can	1-1/2" Ball	31312	48
		16/32oz Can	3/4" Ball	30359	50
		16/32oz can-CPVC	3/4" Ball	31313	48
		32oz Can	1-1/4" Ball	30357	48
		32oz Can	1-1/4" Ball	30358	50
		Adjustable	1/2" Ball	31300	100
	Adjustable	1" Ball	31301	100	
	Swabs	32oz Can	4" Swab	30354	24
		Wide Mouth Gallon	4" Swab	30356	24
		Gallon - wide & std mouth	12" Swab	31276	12
	Rollers	32oz Wide Mouth Can	3" Roller	30351	24
		32oz Can	4" Roller	30352	24
		Wide Mouth Gallon	7" Roller	30353	20
		Gallon - wide & std mouth	12"	31275	12
	Brushes	Natural bristle brush	1"	50200	36
16/32oz Can		1-1/2" brush	31257	48	
Empty Cans	4oz Empty Can		31304	24	
	8oz Empty Can		31305	24	
	16oz Empty Can		31306	24	
	32oz Empty Can		31307	12	
	Gallon - 2-7/8" mouth		30901	6	
	32oz including cap		30367	12	
	Gallon including cap		30376	6	
Pipe Puller	Large diameter pipe puller	6-8" pipe	30365	1	
Can Carrier	Dual 32oz Can Carrier		31250	12	



# How To Solvent Weld

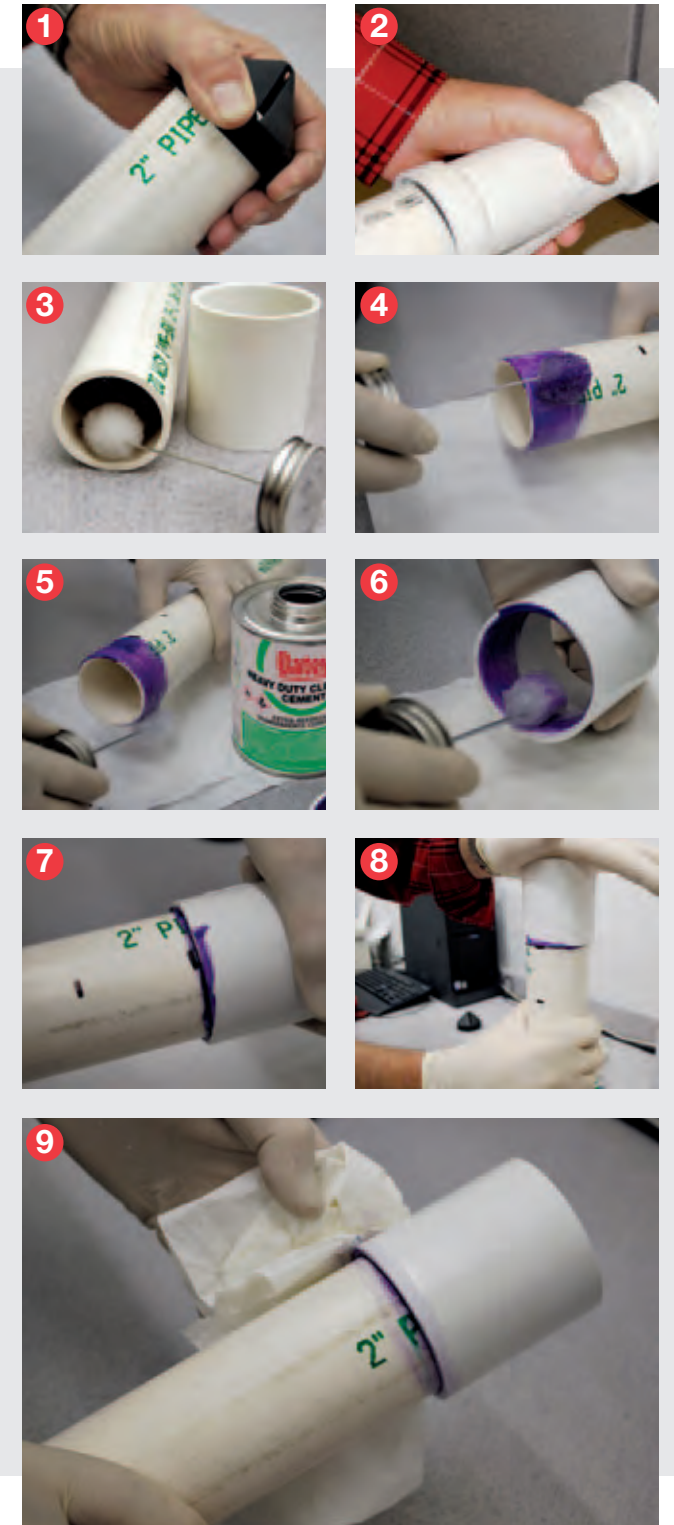
## Prior To Use:

**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. Cut pipe ends square, chamfer and clean pipe ends.
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.



## 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.

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

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



## Average Joint Cure Times for Oatey Solvent Cements

Pipe Diameter	Temperature during assembly and cure period	Temperature during assembly and cure period			
		60° to 100°F 16° to 38°C	40° to 60°F 4° to 16°C	20° to 40°F -7° to 4°C	0° to 20°F -18° to -7°C
<b>1/2" to 1-1/4"</b> 13 to 32mm	Up to 180 psi	15 min	20 min	30 min	60 min
	180 psi +	4 hours	8 hours	36 hours	48 hours
<b>1-1/2" to 3"</b> 40 to 80mm	Up to 180 psi	30 min	45 min	60 min	Please contact Oatey Technical Services for cure time information
	180 psi +	8 hours	16 hours	3 days	
<b>4" to 5"</b> 100 to 125mm	Up to 180 psi	2 hours	4 hours	36 hours	
	180 psi +	12 hours	24 hours	4 days	
<b>6" to 8"</b> 150 to 200mm	Up to 180 psi	8 hours	16 hours	3 days	
	180 psi +	24 hours	48 hrs	9 days	
<b>10" to 16"</b> 250 to 400mm	Up to 100 psi	24 hours	48 hrs	8 days	
	Up to 100 psi	36 hours	3 days	12 days	

Pipe Diameter	Temperature during assembly and cure period	Temperature during assembly and cure period			
		60° to 100°F 16° to 38°C	40° to 60°F 4° to 16°C	20° to 40°F -7° to 4°C	0° to 20°F -18° to -7°C
<b>1/2" to 1-1/4"</b> 13 to 32mm	Up to 180 psi	1 hour	2 hours	Please contact Oatey Technical Services for cure time information	
	180 psi +	6 hours	3 days		
<b>1-1/2" to 3"</b> 40 to 80mm	Up to 180 psi	5 hours	3 days		
	180 psi +	3 days	1 week		
<b>4" to 5"</b> 100 to 125mm	Up to 180 psi	16 hours	1 week		
	180 psi +	1 week	3 weeks		
<b>6" to 8"</b> 150 to 200mm	Up to 180 psi	1 week	2 weeks		
	180 psi +	2 weeks	4 weeks		
<b>10" to 16"</b> 250 to 400mm	Up to 100 psi				
	Up to 100 psi				

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

## Average Number of Joints Per Quart of Solvent Cement

Pipe Diameter	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	3"	4"	6"	8"	10"	12"	15"	18"
Number of Joints	325	250	150	125	90	70	50	30	10	8	3	2	3/4	1/2

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



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