WELD-ON®

THE WORLD'S MOST TRUSTED BOND

SOLVENT WELDING GUIDE

This guide describes the basic principles for solvent welding plastic pipe and fittings and gives recommended techniques for making high strength joints in a wide variety of conditions.

THE WORLD'S MOST TRUSTED BOND

For 70+ years Weld-On® has produced the most dependable, fail proof solvent cements for use with PVC, CPVC, ABS pipe and fittings.

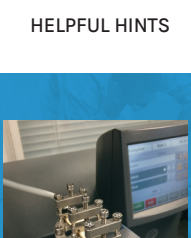
Each Weld-On® formulation has been developed for a specific application and is subject to the strictest quality control program in the industry. This program guarantees the most consistent and highest quality solvent cements commercially available.

Weld-On® low VOC solvent cements, primers and accessories are shipped worldwide to customers in such diverse fields as construction, agriculture, swimming pools and spas, water and wastewater, and manufacturing.

The solvent welded connection in thermoplastic pipe and fittings is the last vital link in a plastic pipe installation. It can mean the success or failure of the system as a whole. Accordingly, it requires the same professional care and attention that is given to other components of the system.

This guide was developed to aid the installer in the proper techniques needed for the joining of plastic pipe and fittings. The suggestions and data in this guide are based on information we believe to be reliable. Installers should verify for themselves that they can make satisfactory joints under varying conditions. Also, it is recommended that installers receive personal instruction from trained instructors or competent, experienced installers. **See Warning, Caution and Danger statements on pages 19-21 of this document. Contact us or your supplier for additional information or instruction.**

TABLE OF CONTENTS



PRODUCTS - STANDARDS & CERTIFICATIONS

	Product	Bodied	Set	Color	Shelf Life	Feature	Standard	Certification*
General Plumbing	705 PVC	Medium	Fast	Clear	4	PVC	ASTM2564	UL, NSF 61, NSF 14, UPC
	705 ECO	Medium	Fast	Clear	3	THF-Free PVC	ASTM2564	UL, NSF 61, NSF 14, WRAS, UPC
Small Diameter Irrigation & Pool	725 PVC	Medium	Very Fast	Aqua	4	PVC	ASTM2564	UL, NSF 61, NSF 14, WRAS, UPC
	721 PVC	Medium	Fast	Blue	3	PVC	ASTM2564	UL, NSF 61, NSF 14
	721 ECO	Medium	Fast	Blue	3	THF-free PVC	ASTM2564	UL, NSF 61, NSF 14
	795 PVC	Medium	Fast	Blue	3	Flex PVC	ASTM2564	UL, NSF 61, NSF 14, UPC
	747 PVC	Medium	Very Fast	Blue to Clear	3	PVC	ASTM2564, EN14814 ,EN14680	UL, NSF 61, NSF 14, UPC, CE, UKCA, CSA B45.10
Med Dia. Industrial & Plumbing	717 PVC	Heavy	Medium	Clear Gray	3	PVC	ASTM2564, EN14814, EN14680	UL, NSF 61, NSF 14, UPC
	717 ECO	Heavy	Medium	Tinted Gray	3	THF-free PVC	ASTM2564	UL, NSF 61, NSF 14
Large Diameter Industrial	748 PVC	Extra Heavy	Medium	Blue	4	PVC		WRAS
	719 ECO	Extra Heavy	Slow	Beige	3	PVC	ASTM 2564	UL, NSF 61, NSF 14, WRAS, UPC
	719 PVC	Extra Heavy	Slow	Tinted	3	PVC	ASTM2564, EN14814, EN14680	NSF 61, NSF 14
General Hot & Cold Water CPVC	714 CPVC	Heavy	Medium	Orange/ Gray	3	THF-free CPVC	ASTM2564, ASTM493	UL, NSF 61, NSF 14, UPC
	714 ECO	Heavy	Medium	Orange/ Gray	3	CPVC	ASTM2564, ASTM493	UL, NSF 61, NSF 14, UPC
	713 CPVC	Heavy	Medium	Orange	2	PVC	ASTM2564, ASTM2564	UL
Chemical CPVC	724 CPVC	Heavy	Medium	Orange/ Gray	2	CPVC Acid Use	ASTM2564, ASTM2564	UL, NSF 61, NSF 14, WRAS, UPC
Drain, Waste & Vent ABS	771 ABS	Medium Heavy	Fast	Cloudy Yellow	3	ABS	ASTM2235	UL, NSF 14, UPC
	773ABS	Medium Heavy	Medium	Black	3	ABS to PVC	ASTM3138	UL, NSF 14, UPC
	794 ABS	Medium	Fast	Green	3	ABS to PVC	ASTM3138	UL, NSF 14, UPC
Primers & Cleaners	P-68 Primer	Thin	NA	Clear/ Purple	3	ANY	ASTM3138	UL, NSF 61, NSF 14
	P-68 ECO Primer	Thin	NA	Clear/ Purple	3	THF-free ANY	ASTM3138	UL, NSF 61, NSF 14
	P-70 Primer	Thin	NA	Clear/ Purple	3	ANY	ASTM3138	UL, NSF 61, NSF 14
	P-65 Cleaner	Thin	NA	Clear	3	ANY		

PRODUCT SELECTION GUIDE

PRODUCT TYPE:	REGULAR BODIED CEMENT  For Pipe Size Up to 110mm	MEDIUM BODIED CEMENT  For Pipe Size 90mm to 160mm	HEAVY BODIED CEMENT  For Pipe Size 160mm to 315mm	EXTRA HEAVY BODIED CEMENT  For Pipe Size 315mm to 800mm
PVC SOLVENT CEMENTS	700™ ECO 700™ 702™ 710™	704™ 705™ ECO 705™ 721™ ECO 721™	711™ ECO 711™ 717™ ECO 717™	719™
PVC SPECIALTY SOLVENT CEMENTS		725™ Wet 'R Dry™ 727™ Hot 'R Coldy™ 737™ Turf 'N Ag™ 795™ Flex PVC™		
PVC POOL SOLVENT CEMENTS	740™ ECO 740™	744™ ECO 744™ 747™ Pool 'R Spa™ 748™ Pool Fast™ ECO 748™ Pool Fast™	746™ ECO 746™	
CPVC SOLVENT CEMENTS	713™	FlowGuard Gold™	714™ 714™ ECO 724™	729™
ABS SOLVENT CEMENTS		771™ 773™		
SPECIALTY SOLVENT CEMENTS		790™ Multipurpose™ 794™ ABS-PVC Transition™		
PRIMERS & CLEANERS	P-68 ECO™ Primer P-68™ P-70™ P-75™		C-65™ Cleaner PC-64™ Primer-Conditioner	

Refer to the Weld-On Product Guide for all product details and pipe size recommendations.

Weld-On® continues to lead the industry in offering the widest select of regulatory-compliant, environmentally-friendly ultra low VOC solvent cements and primers.

Weld-On® solvent cements, primers and cleaning products have received **UL GREENGUARD GOLD** Certification. They have been tested and certified to meet some of the world's most rigorous, third-party chemical emissions to create improved indoor environments.

spot.ul.com

* Certification icons for reference:

Our portfolio

We provide custom solutions to meet customers' evolving needs.

INDUSTRIAL

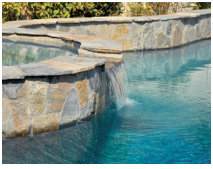
1600+ factories and industrial facilities rely on Weld-On® cements due to their advanced capability to handle corrosive chemicals, join large diameter pipes (800mm) and meet green standards.

- 705 PVC
- 711 PVC
- 714 CPVC
- 717 PVC
- 719 PVC
- 724 CPVC
- 729 CPVC
- 714 ECO™ CPVC
- P-70 PRIMER

IRRIGATION

More than 20,000 farms and agricultural operations rely on Weld-On cements to streamline installation processes and minimize downtime. Our fastest-setting cements excel in wet conditions and across all temperature ranges, ensuring excellent performance.

- 700 PVC
- 705 PVC
- 711 PVC
- 721 PVC
- 725 WET 'R DRY
- 727 HOT 'R COLD PVC
- 737 TURF 'N AG
- 700 ECO™
- 705 ECO™
- 711 ECO™
- 717 ECO™
- 721 ECO™
- P-68 ECO™ PRIMER
- P-70 PRIMER



POOL & SPA

1M+ spas were built with Weld-On® over the past decade. Pool installers and remodelers save time and provide a clean, professional installation with our cements that grip fast in wet conditions and fade from blue to clear.

- 740 POOL REGULAR
- 744 POOL MEDIUM
- 746 POOL HEAVY
- 747 POOL 'R SPA
- 748 POOL FAST
- POOL PRIMER
- 795 FLEX PVC
- 740 ECO™ POOL REGULAR
- 744 ECO™ POOL MEDIUM
- 746 ECO™ POOL HEAVY
- 748 ECO™ POOL FAST

CONSTRUCTION

500M pressurized joints are made with Weld-On each year. We offer the widest range of cements for joining PVC, CPVC, ABS or Flex pipe in sites ranging from residential repairs to high-rise skyscrapers.

- 700 PVC
- 704 PVC
- 705 PVC
- 711 PVC
- 718 PVC
- 719 PVC
- 713 CPVC
- 714 CPVC
- 771 ABS
- ALL SEAL™
- BLUE SEAL™
- C-65 CLEANER
- 700 ECO™ PVC
- 705 ECO™ PVC
- 717 ECO™ PVC
- 719 ECO™ PVC
- P-68 ECO™ PRIMER
- P-68 PRIMER

FIRE SUPPRESSION

For 55+ years, we've worked with resin suppliers and pipe manufacturers to design cements that meet demanding requirements for critical, life-saving fire suppression systems using CPVC pipe.

- 550 FIRE SPRINKLER CEMENT

WELD-ON APPLICATORS & ACCESSORIES

SOLVENT CEMENT APPLICATORS

SuperSwab™
A sturdy easy-to-grip 102mm swab for pipe diameter from 102mm through 305mm. Adjustable length and dual cap design that fits liter and 3.8 liter containers. The swab tip is disposable and swab handle is reusable. Patent No. 8747004

4020
102mm swab for pipe diameters of 152mm or larger; fits MT-648 empty 3.8 liter can and cements available in wide mouth cans.

5020
102mmswab for pipe diameters from 76mm through 203mm; fits standard liter can as well as MT-651 empty liter can.

SuperDauber™
Fully adjustable, telescopic stem that fits liter, pint and ¼ liter cans. Easy grip, ribbed handle allows better dauber control. Shed-resistant dauber material is better for smooth, full application of cement or primer. Available in 19mm and 32mm dauber sizes.

Cap Daubers
DH Daubers fit ⅛ liter & ¼ liter cans; DP daubers fit ¼ liter & ½ liter cans; DQ daubers fit liter cans. Available in 16mm, 19mm, and 38mm dauber sizes.

PB-1
Plastic handle brush. Fits standard ½ liter and liter cans.

8020
102mm cotton swab with wire handle for use on pipe diameter 152mm or larger.

SOLVENT CEMENT APPLICATORS

7020
Jumbo Roll-A-Weld 178mm roller for pipe diameters of 152mm or larger; fits MT-648 3.8 liter can and cements available in wide mouth cans.

3020
Roll-A-Weld 76mm roller for pipe diameters from 76mm through 152mm; fits MT-653 empty liter triple tight neck can.

6020
Roll-A-Weld 102mm roller for pipe diameters from 76mm through 203mm; fits standard liter can as well as MT-651 empty liter can.

JOBSITE ACCESSORIES

Can-Tote Cement & Primer Carrier
For carrying liter and ½ liter cans.

Easy Twist™
The Easy Twist™ is ergonomically designed to easily open the can in a simple twist without damaging the cap. When closing the can, the Easy Twist™ helps tighten and seal the cap with extra torque preventing solvent cements or primers from drying out.

Empty Metal Cans
Available in 3.8 liter, liter, liter (paint type), and pint sizes. Caps not available for sale. Dauber sold separately.

Pipe and Fitting Pullers
For installation of large diameter plastic pipe and fittings (PVC, CPVC, ABS). Available for pipe and fittings sizes 102mm - 305mm diameter and 356 - 508mm diameter Lightweight, durable and can easily be operated by one person.

PROCEDURE FOR PIPE JOINING

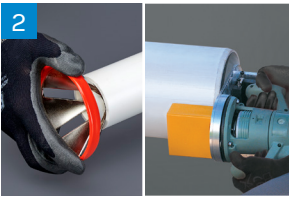
1. Prepare the Pipe:
Check that the pipe has been cut square and remove any burrs from the inside and outside edges.

Use a Weld-On® deburring tool to smooth the sharp edges both inside and outside the pipe.

Ensure the pipe and socket are free from dirt, swarf, and moisture.

Plastic pipe tubing cutters may also be used for cutting plastic pipe; however, these produce a raised bead at the end of the pipe. This bead must be removed with a Weld-On chamfering tool.

2. Chamfer the Pipe:
Use Weld-On deburring/ chamfering tool @ 10 - 22° to remove burrs on inside/ outside of the pipe. This process will chamfer and prepare pipe for welding.



Burrs can scrape channels into pre-softened surfaces or create hang-ups across the inside fitting diameter.

3. Clean the Pipe:
With a clean, dry rag, remove any dirt, oil, shavings or moisture from the inside and outside of the pipe and fitting. A thorough wipe is usually sufficient.

Moisture will retard cure and dirt, oil, or any foreign material and can prevent proper welding.

4. Mark the Pipe:

Create two witness marks: Using the pencil create the first mark that will measure the depth of the socket. The first mark is used as a reference where primer and cement are to be applied. Place the second mark (2"or 63mm) further up the pipe.

This first mark will help determine when the pipe is fully inserted into the socket bottom. The second mark will designate if the pipe moved back out of the socket during the cure time.

5. Dry Fit the Joint:

Insert the pipe into the socket (without primer or cement) to check for proper fit. Fit shouldn't be too loose or sloppy.

6. Use the Right Weld-On Brush or Applicator:

Select a brush or applicator that is approx. half of the pipe diameter.

Before applying primer, vigorously shake or stir the cement. Primer is not required to be shaken or stirred.

7. Prime the Surfaces:
Using a proper size Weld-On® applicator, apply Weld-On primer to fitting socket (not less than 15 reps) then pipe then fitting socket. Do not allow primer to run down the inside or outside of the fitting or pipe.

Do not use PVC cements at temperatures below 5°C. At temperatures higher than 25°C, the application process must be carried out faster due to the faster evaporation of the solvents.

8. Apply Solvent Cement:
Start by applying a uniform thick layer of solvent cement (4-6 reps) to the external surface of the pipe just slightly past the first witness mark.

Then apply a medium coating (uniform 4-6 reps), of solvent cement over the full socket depth.

Take care to avoid excess cement building up at the back of the socket.

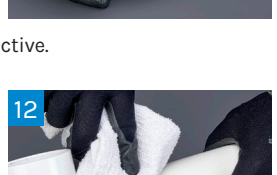
If needed, add a second layer of cement to the pipe. Most joint failures are caused by insufficient application of cement.

9. Assemble:
Immediately and without delay assemble pipe and fitting in one smooth continuous motion until the pipe is fully inserted into the socket bottom.

10. Hold the Joint:
Hold the joint firmly for a minimum of 30 seconds to ensure a strong bond. In extremely cold conditions hold the joint longer than 30 seconds. Avoid any movement or disturbance during this phase, as it can weaken the joint. If this happens, cut the joint and start the process over.

11. Visual Joint check (bead check):
After assembly, a joint should have a ring or bead of cement completely around the juncture of the pipe and fitting. If voids (gaps) in this ring are present, sufficient cement was not applied and the joint may be defective.

12. Wipe Off Excess Cement:
Use a clean rag to wipe off excess solvent cement immediately from the outside of the joint. This step ensures a neat and professional-looking joint.



The adding of primers, cleaners or other thinners to thin the viscosity of solvent cement is not allowed.

13. Allow Proper Curing Time:
Do not disturb the joint for five minutes, and avoid rough handling for at least one hour. Refrain from filling the pipe with water or pressurizing the line until fully cured.

Curing Time: The joint's curing process depends on ambient temperature, humidity, and amount of time when last joint is made. Joints cure faster in low humidity and higher temperature.

Generally allow at least 24 hours for curing at temperatures above 16°C and 48 hours at 0°C. For complete cure time and guidance please refer to Weld-On's cure-time table on page 16.

JOINING LARGE DIAMETER PIPE AND FITTINGS

(152mm Diameter and Larger)

As pipe diameter increases, make sure to have larger crew size to support applying primer and solvents correctly using assistance tool. The professional installer should be able to successfully assemble large diameter pipe and fittings by following the Procedure for Pipe Joining instructions listed in the beginning of this guide along with the following additional recommendations.

1. Use of proper size applicators is even more necessary to ensure enough cement is applied to fill the larger gap that exists between the pipe and fittings.
2. Of equal importance is the use of the applicable cement for the size of pipe and fittings being installed. We recommend the following:
   - Up to 315mm PVC Sch 40 or Sch 80 - Weld-On® 711™ & 717™
   - Up to 760mm PVC Sch 40 or Sch 80 - Weld-On® 719™
   - Up to 315mm CPVC- Weld-On® 714™ & 724™
   - Up to 630mm CPVC Duct - Weld-On® 729™
3. End of pipe must be cut square and chamfered.
4. Suggested size of joining crew:
   - 160mm- 200mm: 2-3 people per joint
   - 250mm- 760mm: 3-4 people per joint

   It is important that large diameter joining is done with an increased size crew.

5. Because of the short sockets in many large diameter fittings, **IT IS VERY IMPORTANT TO HAVE PIPE BOTTOMED INTO THE FITTING.** Large diameter pipe is heavy and can develop significant resistance during insertion, before reaching socket bottom. For larger size piping above 110mm or 4" use the pipe-puller (such as the one pictured below).
6. Large diameter pipe and fittings require longer set and cure times. In cold weather, a heat blanket or heat lamps may be used to speed up the set and cure times. Applied heat shall not exceed 38 Celsius.
7. Prefabricate as many joints as possible in warm environment.
8. If pipe is to be buried, make as many joints as possible above ground, then after joints have fully cured, carefully lower into trench.
9. Never bury empty cans, brushes, or anything else containing solvent cement, primer, or cleaner into the pipe trench.

Contact Weld-On's Technical Service Department for further information: **+44 (191) 8202661**

CHEMICAL APPLICATIONS

Installations of plastic pipe and fittings for chemical applications requires a higher degree of skill than other installations; joint failures in these systems could be life threatening. It is for this reason we recommend the following tips for these applications.

Tips for Installation:

1. Installers should attend a Weld-On® Installation Seminar.
2. Allow at least minimum 48hr cure time (depending on the chemical used). Can label and tech manual should have instructions
3. Flush system per project engineer's instructions before putting into service.
4. Installers should use extra care during assembly to ensure proper installation of system.
5. Make sure the proper cement for the specific application is used.
6. If there is any doubt about compatibility of materials (pipe, fittings or cement) with chemicals in system, manufacturers of materials should be contacted.

REPAIRS

For over sixty years, we have been manufacturing solvent cements and have had the opportunity to evaluate numerous joint failures, visit many job sites and witness numerous attempts at repairing leaking joints (most do not work).

Taking into consideration the cost of materials, time involved and labor costs, in most cases the installer is better off cutting out the defective joint, replacing it with new materials and taking greater care in the joining process.

AVERAGE INITIAL SET SCHEDULE
For WELD-ON® PVC / CPVC Solvent Cements**

Temperature Range	Pipe Sizes 20mm - 40mm	Pipe Sizes 50mm - 63mm	Pipe Sizes 75mm - 200mm	Pipe Sizes 250mm - 380mm	Pipe Sizes 380mm+
16° - 38°C	2 minutes	5 minutes	30 minutes	2 hours	4 hours
5° - 16°C	5 minutes	10 minutes	2 hours	8 hours	16 hours
-18° - 5°C	10 minutes	15 minutes	12 hours	24 hours	48 hours

Note - Initial set schedule is the necessary time to allow before the joint can be carefully handled. In damp or humid weather, allow 50% more set time.

AVERAGE JOINT CURE SCHEDULE
For WELD-ON PVC / CPVC Solvent Cements**

Relative Humidity 60% or Less	Cure Time Pipe Sizes 20mm - 40mm		Cure Time Pipe Sizes 50mm - 63mm		Cure Time Pipe Sizes 75mm - 200mm		Cure Time Pipe Sizes 250mm - 380mm	Cure Time Pipe Sizes 380mm+
Temperature range during assembly and cure periods	up to 11 bar	above 11 bar to 26 bar	up to 11 bar	above 11 bar to 22 bar	up to 11 bar	above 11 bar to 22 bar	up to 7 bar	up to 7 bar
16° - 38°C	15 min	6 hrs	30 min	12 hrs	1½ hrs	24 hrs	48 hrs	72 hrs
5° - 16°C	20 min	12 hrs	45 min	24 hrs	4 hrs	48 hrs	96 hrs	6 days
-18° - 5°C	30 min	48 hrs	1 hour	96 hrs	72 hrs	8 days	8 days	14 days

Note - Joint cure schedule is the necessary time to allow before pressurizing system. In damp or humid weather allow 50% more cure time.

**These figures are estimates based on testing done under laboratory conditions. Field working conditions can vary significantly. This chart should be used as a general reference only.

Average Number of Joints/Liter of WELD-ON Cement*

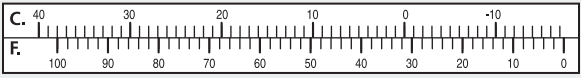
Pipe Diameter	20mm	25mm	32mm	50mm	63mm	90mm	110mm	160mm	200mm	250mm	315mm	380mm	450mm
Number of Joints	300	200	125	90	60	40	30	10	5	2-3	1-2	¾	½

*For Primer: Double the number of joints shown for cement. These figures are estimates based on our laboratory tests. Due to the many variables in the field, these figures should be used as a general guide only.
Note: 1 Joint = 1 Socket

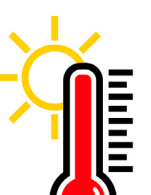
Pipe Size Equivalent Chart - Inches/Millimeters

in.	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	6"	8"	10"	12"	14"	18"	24"	30"
mm.	20	25	32	40	50	63	75	90	110	160	200	250	315	355	450	600	800

Fahrenheit to Celsius Conversion Chart



JOINING PLASTIC PIPE IN HOT WEATHER



There are many occasions when solvent welding plastic pipe at 95°F (38°C) temperatures and above cannot be avoided. If special precautions are taken, problems can be avoided.

Solvent cements for plastic pipe contain high strength solvents which evaporate faster at elevated temperatures. This is especially true when there is a hot wind blowing. If the pipe is stored in direct sunlight, the pipe surface temperatures may be from 20°F to 30°F (10°C to 15°C) higher than the ambient temperature. Solvents attack these hot surfaces faster and deeper, especially inside a joint. Therefore, it is very important to avoid puddling the cement inside the fitting socket and to wipe off any excess cement outside the joint.

By following our standard instructions and using a little extra care, as outlined below, successful solvent cemented joints can be made in even the most extreme hot weather conditions.

Tips to Follow when Solvent Welding in High Temperatures:

1. Store solvent cements and primers in a cool or shaded area prior to use.
2. If possible, store fittings and pipe or at least the ends to be solvent welded, in a shady area before cementing.
3. Cool the surfaces to be joined by wiping with a damp rag. Make sure that surface is dry prior to applying solvent cement.
4. Try to do the solvent welding during the cooler morning hours.
5. Make sure that both surfaces to be joined are still wet with cement when putting them together. With large diameter pipe, more people on the crew may be necessary.
6. Using a primer and a heavier, high viscosity cement will provide a little more working time. Vigorously shake or stir the cement before using.

During hot weather there can be a greater expansion-contraction factor. We suggest you follow the advice of the pipe manufacturer regarding this condition. Anchored, and final connections should be made during the cooler hours of the day.

By using Weld-On® products as recommended and by following these hot weather tips, making strong, leakproof joints even during very hot weather conditions can be achieved.

JOINING PLASTIC PIPE IN COLD WEATHER

Working in freezing temperatures is never easy. But sometimes the job is necessary. If that unavoidable job includes solvent welding plastic pipe, you can do it successfully with Weld-On® Solvent Cements.

By following our standard instructions and using a little extra care as outlined below, successful solvent welded joints can be made at temperatures even as low as -15°F (-26°C). In cold weather, solvents penetrate and soften the plastic pipe and fitting surfaces more slowly than in warm weather. Also the plastic is more resistant to solvent attack. Therefore it becomes even more important to presoften surfaces with an aggressive primer. And, because of slower evaporation, a longer cure time is necessary. Our cure schedules allow a margin for safety, but for colder weather more time should be allowed.

Tips to Follow when Solvent Welding in Cold Temperatures:

1. Prefabricate as much of the system as is possible in a heated work area.
2. Store cements and primers in a warmer area when not in use and make sure they remain fluid. If possible, store the fittings & valves the same way.
3. Take special care to remove moisture including ice and snow from the surfaces to be joined, especially from around the ends of the pipe.
4. Use the most aggressive Weld-On Primer available to soften the joining surfaces before applying cement. More than one application may be necessary.
5. Vigorously shake or stir cement before using. Allow a longer cure period before the system is tested and used. (A heat blanket may be used to speed up the set and cure times.)
6. Read and follow all of our directions carefully before installation.

All Weld-On cements are formulated to have well balanced drying characteristics and to have good stability in subfreezing temperatures.

For all practical purposes, good solvent welded joints can be made in very cold conditions with proper care and a little common sense.

SPECIAL CONSIDERATIONS AND SAFETY PRECAUTIONS

1. Proper workmanship and adherence to correct procedures are essential for durable solvent joints.
2. Always ensure that dry-fit joint have a net fit and not too loose or a sloppy fit between the pipe and socket.
3. Store solvent cement and priming fluids in a cool place away from heat, flames, and sparks.
4. Wear proper protective hand gloves when applying solvent cement to prevent skin contact. Please refer to the Weld-On GHS guide.
5. Do not smoke, vape or use any open flame product. Lastly do not eat or drink around solvent welding process.
6. Follow safety precautions and first aid instructions in case of accidental contact.

Scan QR Code for Weld-On products Safety Data Sheet library.

Note that specific guidelines and standards mentioned, such as ISO/EN or ASTM should be referenced for accurate installation.

⚠ CAUTION ⚠

For over 60 years, millions of solvent welded joints have been made with only rare cases of mishap. However, since flammable and toxic solvents are part of these products, appropriate safety precautions should be used.

All solvent cements and primers for plastic pipe are flammable and should not be used or stored near heat, spark, open flame and other sources of ignition. Vapors may ignite explosively. Solvent cement vapors are heavier than air and may travel to source(s) of ignition at or near ground or lower level(s) and flash back. Keep container tightly closed when not in use and covered as much as possible when in use. Avoid breathing of vapors. Use only in well-ventilated area. If confined or partially enclosed, use forced ventilation. When necessary, use local exhaust ventilation to remove harmful airborne contaminants from employee breathing zone and to keep contaminates below 25 ppm TWA. Atmospheric levels must be maintained below established exposure limits contained in Section II of the Material Safety Data Sheet (MSDS). If airborne concentrations exceed those limits, use of a NIOSH approved organic vapor cartridge respirator with full face-piece is recommended. The effectiveness of an air-purifying respirator is limited. Use it only for a single short-term exposure. For emergency and other conditions where short-term exposure guidelines may be exceeded, use an approved positive pressure self-contained breathing apparatus.

Do not smoke, vape, eat or drink while working with this product. Avoid contact with skin, eyes and clothing. Wash clothing if contaminated and before reuse. May cause eye injury. Protective equipment such as gloves, goggles and impervious apron should be used. Keep out of reach of children. Do not take internally. Carefully read Material Safety Data Sheet and follow all precautions. Do not use this product for other than intended use.

FIRST AID

Inhalation: If ill effects occur from inhalation, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Eye Contact: Flush abundantly with flowing water for 15 minutes and call a physician.

Skin Contact: Wash skin with plenty of soap and water for at least 15 minutes. If irritation develops, get medical attention.

Ingestion: If swallowed, give 1 to 2 glasses of water or milk, **DO NOT INDUCE VOMITING.** Contact physician immediately.

SPECIAL PRECAUTIONS

AS A GENERAL RULE, WELD-ON® SOLVENT CEMENTS SHOULD NOT BE USED IN A PVC OR CPVC SYSTEM USING OR BEING TESTED BY COMPRESSED AIR OR GASES!
NOTE: Pressurized (compressed) air or other compressed gases contain large amounts of stored energy which present serious safety hazards should a system fail for any reason.

Do not use any type of dry granular calcium hypochlorite as a disinfecting material for water purification in potable water piping systems. The introduction of granules or pellets of calcium hypochlorite with PVC and CPVC solvent cements and primers (including their vapors) may result in a violent chemical reaction if a water solution is not used. It is advisable to purify lines by pumping chlorinated water into the piping system – this solution will be nonvolatile. Furthermore, dry granular calcium should not be stored or used near solvent cements and primers. All systems should be flushed before start-up to remove excess fumes from piping system.

New or repaired potable water systems shall be purged of deleterious matter and disinfected prior to utilization. The method to be followed shall be that prescribed by the health authority having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652.

USE CAUTION AROUND TORCHES, GRINDERS OR ANY OTHER TYPE OF FLAME OR SPARK GENERATING DEVICE ON JOBSITES

Extreme caution should be taken around plastic pipe being installed or where it has been recently installed on a jobsite. Flammable vapors will linger for some time in low areas (e.g., elevator shafts, well casings, small confined rooms, basements, large diameter vertical piping, etc.).

Special care must be taken when using a welding torch in these installations:

A. Well casing, elevator shafts and other confined areas.

B. Installing pumps in irrigation water lines.

C. Plastic pipe systems in industrial plant areas with little or no air circulation.

In all cases, solvent vapors must be removed by air circulation, purging, or other means prior to the use of welding torches, or other spark or flame generating equipment or procedures.

HELPFUL HINTS

We are all aware that a properly cemented joint is the most critical part of the installation of plastic pipe and fittings. And no matter how many times we join pipe and fittings, it's very easy to overlook something. So, we just want to remind you of a few things you may already know.

1. Are you using the proper cement for the job – for the type and size of pipe and correct fittings being joined?
2. Do you need to take special precautions because of unusual weather conditions?
3. Do you have sufficient manpower? Do you need more help to maintain proper alignment and to bottom pipe in fitting?
4. Do you have the proper tools, applicators and sufficient quantities of Weld-On® cements and primer and is cement in good condition?

   Do not add primer, cement, cleaners, or solvents of any kind to try to rejuvenate or thin the viscosity of solvent cements.
5. Remember, primer is NOT to be used on ABS pipe or fittings.
6. Be sure to use a large enough applicator to quickly spread cement generously on pipe and fittings. Then assemble immediately.
7. Avoid puddling cement inside the fitting socket, especially on thin wall, bell-end PVC pipe and ABS in any schedule.
8. Do NOT allow primer or cement to run through a valve-socket into the valve body. The solvents can cause damage to interior valve components and cause valve malfunction.
9. Be aware at all times of good safety practices. Solvent cements for pipe and fittings are flammable, so there should be no smoking, vaping or other sources of heat, spark or flame in working or storage areas. Be sure to work only in a well ventilated space and avoid unnecessary skin contact with all solvents. More detailed safety information is available from us.
10. Take advantage of our free literature on joining techniques. We offer videos on joining PVC/CPVC pipe and fittings, and individual bulletins. We also offer joining seminars and job site training.

    Call Weld-On Technical Service Department for more details at **+44 (191) 8202661**

WELD-ON®

THE WORLD'S MOST TRUSTED BOND

▲

455 W. Victoria Street, Compton, CA 90220 USA
Technical Service: +44 (191) 8202661
E-mail: info@ipscorp.com
Website: www.weldon.com

CERTIFIED QUALITY MANAGEMENT SYSTEM ISO 9001

ASTM INTERNATIONAL MEMBER

REV 10-23-EU IC 10/23