

# ***The Industry Leader in Plastic Pipe Solvent Cements***



***Introducing Weld-On CPVC 724™***  
***For CPVC and PVC Industrial Piping and***  
***Chemical Processing Applications***



# IPS WELD-ON® 724 a High Strength Solvent Cement for Chemical Resistant Joints

From the beginning of the plastic piping industry, there was an awareness that well-made solvent cement joints were as strong or stronger than pipe, valves, or fittings alone. As plastic piping gained popularity and reliability for water distribution, so did its use in the chemical process industry. Engineers came to appreciate the superior chemical resistance and cost efficiencies of CPVC and PVC piping when compared to metallic systems. A major advantage of thermoplastic solvent cemented joints is the elimination of secondary joint treatment techniques such as oxide passivation to reduce joint corrosion in welded stainless steel applications, and the use of special barrier coatings to eliminate electrolysis problems in buried metal piping systems.

In early 1996, IPS Weld-On began developing a CPVC / PVC solvent cement with improved chemical resistance. Later that year three test sites were chosen for field-testing. Two were pulp and paper plants; the other was a chemical treatment plant. These installations were monitored for a year. The new cement showed improved chemical resistance to caustics, including hypochlorites, mineral acids, and other corrosive chemicals.

Based on the success of these installations, Weld-On 724 became commercially available in 1997. Since that time it has been used in a variety of harsh chemical applications with no reported failures; as a result of this success, we have received many inquiries for empirical data based on actual laboratory testing. This brochure presents chemical resistance data taken from a set of tests that were performed on CPVC and PVC joints under controlled pressure and temperature conditions that were similar to those normally found in the process industry. Test specimens were each filled with chemicals that are commonly used in a wide variety of industries. For each category of chemical, and for each condition, the independent third party laboratory conducting the evaluation observed no failure of the solvent cemented joints. We would encourage you to review these results and contact us with any questions that you might have concerning Weld-On 724, or any of our other fine products.

Weld-On 724 is NSF approved for potable water applications and meets the requirements of ASTM standard specification F-493.



For use on all classes and schedules of CPVC and PVC pipe and fittings with interference fit through 12" diameter.



### IPS WELD-ON 724 Solvent Cement

Hydrostatic Pressure - 100 PSI

Test Duration - 2,500 Hours

35% NITRIC ACID		20% ACETIC ACID		85% PHOSPHORIC ACID	
CPVC 180°F	PVC 140°F	CPVC 180°F	PVC 140°F	CPVC 180°F	PVC 140°F



Above photos courtesy of Noveon, Inc.

### IPS WELD-ON 724 Solvent Cement

Hydrostatic Pressure - 100 PSI

Test Duration - 2,500 Hours

12% SODIUM HYPOCHLORITE		50% SODIUM HYDROXIDE		37% HYDROCHLORIC ACID	
CPVC 180°F	PVC 140°F	CPVC 180°F	PVC 140°F	CPVC 180°F	PVC 140°F



IPS Corporation, the industry leader, has been producing high quality solvent cements for use in chemical piping systems for many years. As a result of our long-term relationship with the industrial piping market, we were able to gain a valuable understanding of the unique pipe joint problems associated with corrosive chemical transport. Our goal has always been to strive to continuously improve on our products and to remain once again, the preferred choice for industrial CPVC and PVC piping applications.

### IPS WELD-ON 724 Solvent Cement CPVC Chart

CPVC @ 180°F • Hydrostatic Pressure - 100 PSI • Test Duration - 2,500 Hours				
Chemical / Concentration		Temperature °F (°C)	Pressure psi (Bars)	Hydrostatic Testing Results
ACETIC ACID / 20%	CH <sub>3</sub> COOH	180 (82)	100 (7)	No Failure
CHROMIC ACID / 40%	H <sub>2</sub> CrO <sub>4</sub>	180 (82)	100 (7)	No Failure
ETHYLENE GLYCOL / 50%	HOCH <sub>2</sub> CH <sub>2</sub> OH	180 (82)	100 (7)	No Failure
HYDROCHLORIC ACID / 37%	HCl	180 (82)	100 (7)	No Failure
NITRIC ACID / 35%	HNO <sub>3</sub>	180 (82)	100 (7)	No Failure
PHOSPHORIC ACID / 85%	H <sub>3</sub> PO <sub>4</sub>	180 (82)	100 (7)	No Failure
PROPYLENE GLYCOL / 25%	CH <sub>3</sub> CHOHCH <sub>2</sub> OH	180 (82)	100 (7)	No Failure
SODIUM HYDROXIDE / 50%	NaOH	180 (82)	100 (7)	No Failure
SODIUM HYPOCHLORITE **	NaOCl*	180 (82)	100 (7)	No Failure
SULFURIC ACID / 80%	H <sub>2</sub> SO <sub>4</sub>	180 (82)	100 (7)	No Failure
WATER, DISTILLED	H <sub>2</sub> O	180 (82)	100 (7)	No Failure

\* Bleach \*\* Fresh Chemical added twice weekly

### IPS WELD-ON 724 Solvent Cement PVC Chart

PVC @ 140°F • Hydrostatic Pressure - 100 PSI • Test Duration - 2,500 Hours				
Chemical / Concentration		Temperature °F (°C)	Pressure psi (Bars)	Hydrostatic Testing Results
ACETIC ACID / 20%	CH <sub>3</sub> COOH	140 (60)	100 (7)	No Failure
CHROMIC ACID / 40%	H <sub>2</sub> CrO <sub>4</sub>	140 (60)	100 (7)	No Failure
ETHYLENE GLYCOL / 100%	HOCH <sub>2</sub> CH <sub>2</sub> OH	140 (60)	100 (7)	No Failure
HYDROCHLORIC ACID / 37%	HCl	140 (60)	100 (7)	No Failure
NITRIC ACID / 35%	HNO <sub>3</sub>	140 (60)	100 (7)	No Failure
PHOSPHORIC ACID / 85%	H <sub>3</sub> PO <sub>4</sub>	140 (60)	100 (7)	No Failure
PROPYLENE GLYCOL / 100%	CH <sub>3</sub> CHOHCH <sub>2</sub> OH	140 (60)	100 (7)	No Failure
SODIUM HYDROXIDE / 50%	NaOH	140 (60)	100 (7)	No Failure
SODIUM HYPOCHLORITE **	NaOCl*	140 (60)	100 (7)	No Failure
SULFURIC ACID / 90%	H <sub>2</sub> SO <sub>4</sub>	140 (60)	100 (7)	No Failure
WATER, DISTILLED	H <sub>2</sub> O	140 (60)	100 (7)	No Failure
AMMONIUM HYDROXIDE / 10%	NH <sub>4</sub> OH	140 (60)	100 (7)	No Failure

\* Bleach \*\* Fresh Chemical added twice weekly

For additional information contact IPS® Weld-On's Technical Department.



The use of P-70 Purple Primer is recommended when installing CPVC & PVC piping systems for chemical applications.

