



# WELD-ON 3

## ACRYLIC PLASTIC CEMENT

### SUBSTRATE RECOMMENDATIONS

WELD-ON 3 is formulated for cementing acrylic plastic to itself. It will also form strong bonds with other plastics such as styrene, butyrate and polycarbonate to themselves. It will not bond to certain cross-linked acrylics.

### BONDING RECOMMENDATIONS

WELD-ON 3 is being used by sign companies for cementing letters to acrylic panels. Strong butt joints are made with flat sheets by using the soak method. Butyrate capping is cemented to cutout acrylic letters. It is being used in industries for display items, plastic containers, housewares, bottles, etc.

### GENERAL DESCRIPTION

Weld-On 3 is a very fast, clear, water thin, non-flammable, high strength, solvent-type acrylic cement. The bond is affected by softening the surfaces to be joined and fusing them together. An initial bond will be formed within a few minutes and its strength will increase rapidly. Substantial strength will be obtained within a few hours. Under certain conditions, especially with high humidity, this cement may leave a white mark on the plastic (commonly called blushing). For a more blush resistant, but somewhat slower acrylic cement, we suggest you try Weld-On 4 or 5.

### BOND STRENGTH DATA

Lap joint bond strength is based on using 1/4" thick substrate with 1 square inch bonding area.

<b>SUBSTRATE MATERIAL</b>	<u>2 Hours</u>	<u>24 Hours</u>	<u>1 Week</u>
Acrylic (Cast & Extruded)	800 PSI	2000 PSI	2500 PSI
Polycarbonate	800	1600	2400
Styrene	600	1300	2000

### ADHESIVE PROPERTIES AND CHARACTERISTICS

COLOR:	Clear
VISCOSITY:	Water Thin
80% STRENGTH:	72 hours
SPECIFIC GRAVITY:	1.33 ± .040
COVERAGE:	Unknown, no way to determine

### DIRECTIONS FOR USE

- Parts to be joined should be clean and fit without forcing. Apply cement with syringe, eyedropper or brush. Assemble while parts are still wet. If cement is applied to one surface, let the two surfaces be in gentle contact for a few seconds to allow the cement to soften the dry surfaces, then press parts together in firm contact.
- For capillary method, parts are placed lightly together and cement is applied to the edge of the joint with syringe or eyedropper. By capillary action, the cement will flow a considerable distance (approx. 1/4") between two such surfaces. Allow a few seconds for the cement to soften the surfaces. Press parts firmly together.
- For soak method, vertically dip surfaces until softened (approx. 2 to 5 minutes), then join pieces firmly together.
- Initial bonds form very quickly. Bond strength continues to develop very rapidly, reaching high strength in 24 to 48 hours. Thereafter, strength will continue to increase gradually for some weeks.
- In many cases, this cement dries too fast to apply by brush to the parts before they are joined.
- If crazing is a problem, we suggest you consider annealing before cementing.

## **SHELF LIFE**

Two years expectancy in tightly sealed containers. Stability of the product is limited by the permanence of the container and the evaporation of the solvent when container is open. Evaporation of solvent will reduce the effectiveness of the cement.

## **SHIPPING**

**Shipping Information for Individual Containers Larger than One Liter:** DOT Shipping Name: Dichloromethane. DOT Hazard Class: 6.1. ID #: UN1593. Packaging Group: III. Label: (Domestic) Keep Away From Food (International) Toxic.

**Shipping Information for Less than One Liter:** DOT Shipping Name: Consumer Commodity. DOT Shipping Class: ORM-D.

## **SAFETY AND ENVIRONMENTAL PRECAUTIONS**

This product is a non-flammable, very fast evaporating solvent cement. It is considered a hazardous material. In conformance with the Federal Hazardous Substance Labeling Act, the following hazards and precautions are given. Purchasers who may re-package this product must also conform to all local, state, and federal labeling, safety and other regulations.

### **DANGER! – VAPOR HARMFUL – MAY BE HARMFUL IF SWALLOWED – MAY IRRITATE SKIN OR EYES**

Keep out of the reach of children. Do not take internally. Keep away from heat, spark, open flame and other sources of ignition. Contact with hot surfaces may produce toxic effects. Keep container closed when not in use. Store in the shade below 80°F. Use only in adequate ventilation. Avoid breathing of vapors. Atmospheric levels should be maintained below established exposure limit values. See Sections II and VIII of MSDS. If airborne concentrations exceed these limits, use a supplied air respirator. Do not use a chemical cartridge respirator. For emergencies and other conditions where short-term exposure may be exceeded, use an approved positive pressure self-contained breathing apparatus. In confined areas, use a positive pressure self-contained breathing apparatus (SCBA). Do not smoke, eat or drink while working with this product. Avoid contact with skin, eyes, and clothing. May cause eye injury. Protective equipment such as gloves, safety goggles, and impervious apron should be used. Carefully read Material Safety Data Sheet and follow all precautions. Contains Methylene Chloride (75-09-2), Trichloroethylene (79-01-6) and Methyl Methacrylate Monomer (80-62-6). Methylene Chloride and Trichloroethylene are listed as cancer causing materials. OSHA has established special requirements for work place monitoring and protection. Extent of health risk depends on level and duration of exposure, as well as individual sensitivity. Do not use this product for other than intended use.

"Proposition 65 Warning": This product contains chemicals known to the State of California to cause cancer.

"Title III Section 313 Supplier Notification": This product contains toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40CFR372. This information must be included in all MSDS's that are copied and distributed for this material.

## **FIRST AID**

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

**Eye or Skin Contact:** Flush with plenty of water for 15 minutes. If irritation persists, get medical attention.

**Ingestion:** If swallowed, do not induce vomiting. Contact physician immediately.

## **QUALITY ASSURANCE**

Every batch of this cement is checked to assure that consistent quality is maintained. An infrared absorption curve is recorded for each batch to ensure that this cement is properly formulated. Samples are taken from all batches and kept for a period of at least one year. A batch identification code is stamped on each can.

## **IMPORTANT NOTICE**

This product is intended for use by skilled individuals at their own risk. These suggestions and data are based on information we believe to be reliable. Users should verify by test that this product, as well as these methods, are suited to their application. Our warranty is limited to the replacement of defective IPS products.