

## TECHNICAL DATA SHEET

1802

**Multi-purpose Acrylic Plastic Cement** 

#### SUBSTRATE RECOMMENDATIONS

Weld-On® 1802 is formulated to bond acrylic (poly-methyl methacrylate), ABS, cellulose acetate butyrate, rigid PVC, and polystyrene to themselves and to each other. It does not bond to metal or glass.

#### **BONDING RECOMMENDATIONS**

Weld-On 1802 is a multi-purpose acrylic plastic cement. It is recommended for use in a variety of application such as large housings, signs, plastic letters, industrial fabrications, display items, lenses and models.

#### **GENERAL DESCRIPTION**

Weld-On 1802 is a clear, thin bodied, medium set, solvent cement. It cures with the dissipation of solvents forming strong, water resistant, clear joints. Initial bonds form very quickly. Depending on size and conditions, some parts may be handled within just a few minutes of application. Bond strength will be considerable in a few hours and will reach high strength in 24 to 48 hours. Thereafter, strength will gradually increase for a number of weeks. Cured joints are water and weather resistant.

#### TYPICAL BOND STRENGTH<sup>†</sup>

Substrate Material	Aged Bond Strength, lbs/in² (kg/cm²)		
	24 Hours	1 Week	
Acrylic	880 (61.9) 1,600 (112.5)		
PVC (ridged)	600 (42.2)	1,600 (112.5)	
ABS	900 (63.3) 1,380 (97.0)		
Polystyrene	400 (28.1) 1,450 (102.0)		

Substrate thickness: 0.25 inch (0.64 cm). Bond area: 1.0 in² (6.45 cm²). Ultimate Bond Strength is defined as strength achieved after 24-hour room temperature cure.

### ADHESIVE PROPERTIES AND CHARACTERISTICS @ 73°F (23°C)

Color:	Clear	Fixture Time (Time to reach 80% of ultimate strength):	10 – 15 Minutes
Viscosity:	$350 \pm 100 \text{ cps}$	Time to reach ultimate bond strength:	72 Hours
Working Time:	8 Minutes	Specific Gravity:	$0.880 \pm 0.01$

#### **DIRECTIONS FOR USE**

- Surfaces to be joined must be clean, dry, and fit intimately without forcing.
- Apply cement with syringe, polyethylene squeeze bottle, 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 allowing the dry surface to be softened by the cement. Then press parts together in firm contact.
- Initial bond forms very quickly. 65 80% of the ultimate bond strength will be obtained within 24 72 hours. Strength will continue to increase for several weeks.

#### **AVAILABILITY**

This product is available in gallon (3.785 liters) cans. For detailed information on containers and applicators, refer to the current Sign and Display Assembly Selection Guide and Price List.

#### SHELF LIFE

Three years in tightly sealed containers. The date code of manufacture is stamped on the bottom of the container. Stability of the product is limited by the evaporation of the solvent when the container is opened. Evaporation of solvent will cause the cement to thicken and reduce its effectiveness. Adding of thinners to change viscosity is not recommended and may significantly change the properties of the cement.

#### **QUALITY ASSURANCE**

Weld-On 1802 is carefully evaluated to assure that consistent high quality is maintained. Fourier transform infrared spectroscopy, gas chromatography, and additional in depth testing ensures each batch is manufactured to exacting standards. A batch identification code is stamped on each can and assures traceability of all materials and processes encountered in manufacturing this plastic cement for its intended specific application.



#### **SHIPPING**

**Shipping Information for One Liter Kit and Above:** Proper Shipping Name: Adhesive. Hazard Class: 3. Identification Number: UN 1133. Packing Group: II. Label Required: Flammable Liquid. **For Less than One Liter:** Proper Shipping Name: Consumer Commodity. Hazard Class: ORM-D.

#### SAFETY AND ENVIRONMENTAL PRECAUTIONS

This product is a flammable, 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. VOC emissions do not exceed 350 grams per liter.

# WARNING! FLAMMABLE. 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. Keep container closed when not in use. Store away from direct sunlight between  $40^{\circ} \, \text{F} - 110^{\circ} \, \text{F}$  ( $5^{\circ} \, \text{C} - 43^{\circ} \, \text{C}$ ). Use only with adequate ventilation. Avoid breathing of vapors. Atmospheric levels should be maintained below established exposure limit values contained in Section II and VIII of Material Safety Data Sheet. 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, 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 Methyl Ethyl Ketone (78-93-3). Do not use this product for other than intended use.

"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 Material Safety Data Sheets that are copied and distributed for this material.

#### **FIRST AID**

**Inhalation:** If overcome with vapors, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician. **Eye Contact:** Flush with plenty of 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 or 2 glasses of water or milk. Do not induce vomiting. Contact physician or poison control center immediately

#### **IMPORTANT NOTE**

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, is suited to their application.

#### **WARRANTY**

IPS Corporation (IPS Corp.) warrants that all new IPS Corp. products shall be of good quality and free from defects in material and workmanship for the shelf life as indicated on the product. If any IPS Corp. product becomes defective, or fails to conform to our written limited warranty under normal use and storage conditions, then IPS Corp. will, without charge, replace the nonconforming product. However, this limited warranty shall not extend to, nor shall IPS Corp. be responsible for, damages or loss resulting from accident, misuse, negligent use, improper application, or incorporation of IPS Corp. products into other products. In addition, any repackaging of IPS Corp. products also shall void the limited warranty. IPS Corp. shall not be responsible for, nor does this limited warranty extend to, consequential damage, or incidental damage or expense, including without limitation, injury to persons or property or loss of use. Please refer to our standard IPS Corp. Limited Warranty for additional provisions.

