

PRODUCT DATA BULLETIN

PRODUCT DESCRIPTION:

A toughened structural adhesive formulated for bonding dissimilar substrates as well as unprepared metals, ceramics, wood, concrete and standard thermoset plastics. The final adhesive bond is designed to be load bearing and resistant to weathering, humidity and wide temperature variations.

FEATURES/BENEFITS

- Convenient 1:1 mix ratio
- Room temperature curing
- Rapid fixturing in thin set
- Minimal surface preparation required
- High resistance to hydrocarbon based fuels (gasoline, jet fuel, motor oil, hydraulic fluid)
- Thixotropic/non-sagging
- Bonds dissimilar plastics in combination

RECOMMENDED APPLICATIONS

- Outdoor weathering or solvent exposure
- Thermoformed plastic assemblies
- PVC, fiberglass, vinyls, ABS, steel, aluminum, stainless steel, acrylics, phenolic, polycarbonate, styrenics, Noryl®, PET, wood, concrete and ceramic
- Magnet and speaker assembly*
- Sign assembly

Typical Physical Properties, (Uncured)

	<u>Adhesive</u>	<u>Activator</u>
Viscosity TB @ 10rpm	55,000 cps	50,000 cps
Color	Off White	Off White
Weight, lbs./gal.	8.44	8.11
Mixed Density (lbs./gal.).....		8.28
Flash Point.....		51°F
Mixed Viscosity.....		Non-sagging gel
Open Time.....	3 minutes @ 72°F, 22°C	
Assembly Time.....	6 minutes @ 72°F, 22°C	
Fixture Time.....	12 minutes @ 72°F, 22°C	
Functional Cure.....		3/4-1 hour
Full Cure.....		4 hours
Solvents.....		None
Coverage (Based on 25 ml).....		152 sq.in. @ .010"

Performance Characteristics (Cured)

Bond strength tensile shear (ASTM D1002)

Polycarbonate alloy.....	1,400 psi (stock failure)
ABS.....	1,300 psi (stock failure)
Grit-blasted steel.....	3,000 psi
T-Peel strength (ASTM D1876, 10"/min. on 0.060" 6061 Aluminum).....	75 pli
Impact resistance (ASTM D950-61T grit-blasted steel).....	22 ft.lb./in.
Shore hardness (D).....	78
Gap-filling.....	0.125 in.
Minimum Elongation.....	75%
Operating temperature range**.....	-67°F to +250°F

* Copper and Brass are not recommended with Plastic Welder

** Intermittent exposure to temperatures above 250°F (as experienced during normal paint bake cycles) will not reduce the performance characteristics of the methacrylate adhesive.

APPLICATION INFORMATION:

Surface Preparation:

For optimum performance, surface should be solvent-wiped, free of heavy grease deposits, oil, dirt or other contaminants, or cleaned with industrial cleaning equipment such as vapor phase degreasers or hot aqueous baths. Abrading or roughening a metal surface will significantly increase the microscopic bond area and optimize the bond strength.

Application:

Apply mixed adhesive directly to the surface. Surfaces must be mated within the specified open time to assure maximum bond strength. All adhesive applications, part positioning and fixturing should occur before the mix assembly time has expired. Allow application to set for 7-10 minutes before handling.

Definitions:

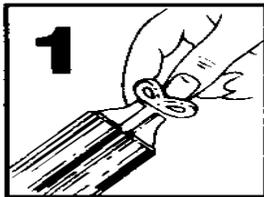
Open time: The maximum allowable time after application of adhesive to insure surface wetting. Longer open times can adversely affect ability of adhesives to properly wet out.

Assembly time: The time you have to mate and position parts prior to commencement of cure. After this time interval, parts must not be disturbed.

Fixture time: The interval of time after which surface being joined will support a 2 lb. (1 kg) dead weight on a ½" (12.7 mm) overlap joint 1" (25.4 mm) wide without movement.

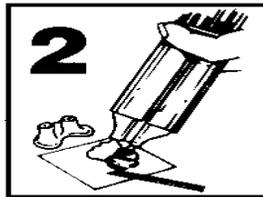
Packaging and Dispensing:

Plastic Welding System comes in a 25 ml syringe, carded, packed six units per case. The syringe is a high-tech, patented dispenser. The patented 1-2-3 dispenser makes it easy to dispense and mix the right amount for the job.



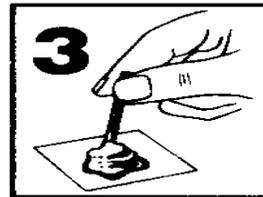
SNAP

Just snap off the cap. The snap off cap eliminates unsafe cutting of tube ends. The cap is reusable.



DISPENSE

When you dispense the product by pushing the easy glide plunger in, a mixing paddle will pop out.



MIX

Mix the right amount of product with the handy mixing paddle. Snap the cap back on. It's that simple.

STORAGE AND SHELF LIFE:

Plastic Welding System should be stored in a cool, dry place when not in use for extended time periods. Plastic Welding System has a shelf life of 1 year or more when stored at room temperature 70°F (22°C) in its original container. Shelf life may be extended by refrigeration.

PRECAUTION:

Plastic Welding System adhesive (Part A and B) is flammable. Contents include Methacrylate Ester. Keep containers closed after use. Avoid skin and eye contact. Wash with soap and water after skin contact. In case of eye contact, flush with water for 15 minutes and get medical attention. Harmful if swallowed. Keep out of reach of children. Keep away from heat, sparks and open flames.

NOTE: Mass mixing of Plastic Welding System generates intense heat levels due to its rapid curing features (film thickness cures in excess of 1/8" should be avoided whenever possible) which can cause the release of volatile components as evidenced by outgassing. Use only enough material as needed within the working time, and confine gap thickness to no more than .125" to prevent this.

Please refer to the appropriate Material Safety Data Sheets prior to using this product for complete safety and handling information.

