

Plastic Weld

All products in this range are quality checked and fully guaranteed.

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.

Applications:

Outdoor weathering or solvent exposure. Thermoformed plastic assemblies PVC, fibreglass, vinyls, ABS, steel aluminium, stainless steel, acrylics, phenolic, polycarbonate, styrenics, noryl, PET, wood, concrete and ceramic magnet and speaker assembly.

Useful notes:

- 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.

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 vapour phase degreasers or hot aqueous baths. Abrading or roughening metal surface will significantly increase the microscopic bond area and optimize the bond strength.

Application:-

Apply mixed adhesive directly to 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 ensure 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 2lb (1kg) deadweight on a ½" (12.7mm) overlap joint 1" (25.4mm) wide without movement. *Copper and brass are not recommended with D3294. **Intermittent exposure to temperatures above 250°F (as experience during normal paint bake cycles) will not reduce the performance characteristics of the methacrylate adhesive.

Storage:

D3294 should be stored in a cool, dry place when not in use for extended time periods.

D3294 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. NOTE Mass mixing of D3294 generates intense heat levels due to its rapid curing features (film thicknesses 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 0.125" to prevent this.

Technical features:

Viscosity	55,000cps
Colour	Off white
Weight (lbs/gal)	8.44
Mixed density (lbs/gal)	8.28
Flash point	51°F
Mixed viscosity	No sagging gel
Open time	3 mins @ 72°F, 22°C
Assembly time	6 mins @ 72°F, 22°C
Functional cure	¾ - 1 hour
Full cure	4 hours
Solvents	None
Coverage (based on 25ml)	152 sq. in @ 0.010"

Typical Bond Characteristics:

Bond strength tensile shear (ASTMD1002)	Polycarbonate Alloy -1,400psi ABS - 1,300psi Grit blasted steel - 3,000psi
T-Peel strength (ASTMD1876, 10"/min on 0.060" 6061 aluminium)	75pli
Impact resistance (ASTMD950-61T grit blasted steel)	22ft.lb/in
Shore hardness (D)	78
Gap filling	0.125in
Minimum elongation	75%
Operating temp range	-67°F to +250°F



IRRITANT



Highly Flammable

Labelling in accordance to 88/379/EEC. The product is classified and labelled in accordance with EC directives/the relevant national laws. Special labelling for certain precautions (Annex III to 88/379/EEC).

Causes toxic severe burns. Limited evidence of a carcinogenic effect. May cause sensitisation by skin contact.

Toxic: danger of serious damage to health by prolonged exposure through inhalation. Dangerous for the ozone layer. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye protection. In case of accident or if you feel unwell, seek medical advice immediately.

Refer to manufacturer/supplier for information on recovery/recycling. In case of accident by inhalation - remove casualty to fresh air and keep at rest.