



ISO-9001-2015 Certified

718 Park East Drive, Woonsocket, RI 02895, USA

Phone: (401) 726-4500

Email: [info@epoxyset.com](mailto:info@epoxyset.com) ■ Web: [www.epoxysetinc.com](http://www.epoxysetinc.com)

# TECHNICAL BULLETIN

## EPOXIBOND™ EB-116 HIGH STRENGTH EPOXY ADHESIVE

**EB-116** is high strength, structural epoxy adhesive. This tough adhesive has an excellent combination of shear and peel strength. It has also excellent impact and vibration resistance and low temperature flexibility. This high-performance epoxy adhesive exhibits very good physical, thermal, and electrical insulation properties and is excellent for cryogenic applications. It is recommended for bonding glass, metal, ceramics, and engineering thermoplastics. Due to its low viscosity, it can be also used for potting and encapsulating electrical/electronic components.

### TYPICAL HANDLING PROPERTIES:

Adhesive	PART-A
Hardener	PART-B
Mix ratio by weight, (Adhesive/Hardener)	100/100
Mix viscosity at 25°C, cp	5000-8000
Pot Life at 25°C (100 grams), hours	2
Shelf Life:	
<b>Two Parts Kit @ 25°C</b>	1 year
<b>Frozen @ -40°C</b>	1 year
Recommended Cure	2 hr at 65°C
Alternate Cure	24-48 hr at 25°C

### TYPICAL CURED PROPERTIES:

(Tested @ 25°C unless otherwise indicated)

Color	Amber
Specific Gravity	1.1
Hardness, Shore D	72
Lap Shear Strength to Aluminum, psi	3200
Lap Shear Strength to Aluminum after 7 days, psi	
Immersed in water @ 100°C	1580
Immersed in Isopropanol @ RT	2330
In oven @ 150°C	4000
T-peel strength to aluminum, pli	23
Service Temperature range, °C	-55 to 110
Glass Transition Temperature, °C	50
Coefficient of Linear Thermal Expansion, 10 <sup>-6</sup> /°C	
Below Tg	94
Dielectric Strength, Volts/mil	380
Dielectric Constant, 1 kHz	3.81
Dissipation Factor, 1 kHz	0.4
Volume Resistivity, ohm-cm	2x10 <sup>13</sup>

### INSTRUCTIONS FOR USE:

1. Weigh each 100 grams of PART-A to 100 grams of Hardener PART-B.
2. Mix until uniform. Scrape the sides and bottom of container repeatedly during mixing.
3. Apply to clean bonding surfaces and cure as recommended to achieve the desired properties.
4. Typical cured properties were determined using recommended cure schedule.
5. Some difference in properties may occur with the alternate or other cure schedules.

### PACKAGING OPTIONS:

**2 parts Kit** - Packaged in Pint, Quart, Gallon, and 5-Gallon size. Also available in 50mL and 400mL dual cartridges.

**Premixed and frozen** - Packaged in 3cc, 5cc, 10cc and 30cc disposable syringes and ship in dry ice at -80°C

### FROZEN ADHESIVE:

Thaw premixed frozen adhesive at room temperature for 5-10 minutes. Dispense adhesive and cure at recommended schedules.

### FOR INDUSTRIAL USE ONLY:

Practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

### WARNING!

Adequate ventilation of workplace and ovens is essential. These materials may cause injury to the skin following prolonged or repeated contact and dermatitis in susceptible individuals. In case of skin contact, wash thoroughly with soap and water. For eyes, flush immediately with plenty of water for at least 10 minutes and seek medical attention. Refer to Safety Data Sheet (**SDS**) for additional health and safety information.

**DISCLAIMER:** All data given here is offered as a guide to the use of these materials and not as a guarantee of their performance. The user should evaluate their suitability for own purposes. Properties are typical and should not be used in preparing specifications. Statements are not to be construed as recommendations to infringe any patent.