



ISO 9001-2015 Certified

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TECHNICAL BULLETIN

EPOXIBOND™ EB-486 THERMALLY CONDUCTIVE ADHESIVE

EB-486 is a high strength, thermally conductive, 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. It is recommended for bonding aluminum, steel, copper, brass, wood, porcelain, and engineering thermoplastics.

TYPICAL HANDLING PROPERTIES:

Adhesive	PART-A
Hardener	PART-B
Mix ratio by weight, (Adhesive/Hardener)	100/100
Viscosity (mixed), cps	80,000-120,000
Pot Life at 25°C (100 grams), minutes	90-120

Recommended Cure **8 hr/25°C + 2 hr/100°C**

Alternate Cure **24-48 hr/25°C**

TYPICAL CURED PROPERTIES AFTER

RECOMMENDED CURE:

(Tested @ 25°C unless otherwise indicated)

Color	Grey
Specific Gravity	1.7
Hardness, Shore D	86
Lap Shear Strength to Aluminum, psi	3500
Service Temperature range, °C	-55 to 120
Thermal Conductivity, W/m°K	1.1
Glass Transition Temperature, °C	80
Service Temperature, °C	-55 to 150
Coefficient of Linear Thermal Expansion, 10 ⁻⁶ /°C	
Below Tg	60
Above Tg	>150
Dielectric Strength, Volts/mil	420
Dielectric Constant, 1 kHz	5.3
Dissipation Factor, 1 kHz	0.08
Volume Resistivity, ohm-cm	3x10 ¹⁴

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. Some difference in properties may occur with the alternate or other cure schedules.

AVAILABILITY:

2 parts Kit - Packaged in Pint, Quart, and 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 Material 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.