



TECHNICAL BULLETIN

EPOXIBOND EB-127TC HIGH STRENGTH, THERMALLY CONDUCTIVE EPOXY ADHESIVE

EB-127TC is a highly thermally conductive, 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. It is recommended for bonding aluminum, steel, copper, brass, wood, porcelain, and engineering thermoplastics.

TYPICAL HANDLING PROPERTIES:

Resin	PART-A
Hardener	PART-B
Mix ratio by weight, (Adhesive/Hardener)	100/46
Mix ratio by vol, (Adhesive/Hardener)	2:1
Viscosity of mixed adhesive, cps	100,000-120,000
Pot Life at 25°C (100 grams), minutes	60-80

Recommended Cure	2 hr/70°C
Alternate Cure	24-48 hr/25°C

TYPICAL CURED PROPERTIES AFTER RECOMMENDED CURE:

(Tested @ 25°C unless otherwise indicated)

Color	Gray
Specific Gravity	1.6
Hardness, Shore D	86
Lap Shear Strength to Aluminum, psi	>3500
T-Peel, piw	8
Service Temperature range, °C	-55 to 160
Thermal Conductivity, W/m²K	0.9
Thermal Impedance, m²K/W (1 mil)	3.5x10⁻⁵
Glass Transition Temperature, °C	62
Coefficient of Linear Thermal Expansion, 10 ⁻⁶ /°C	
Below T _g	55
Above T _g	>125
Dielectric Strength, Volts/mil	420
Dielectric Constant, 1 kHz	5.3
Dissipation Factor, 1 kHz	0.08
Volume Resistivity, ohm-cm	3.0x10 ¹¹

INSTRUCTIONS FOR USE:

1. Weigh each 100 grams of PART-A to 46 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.

FROZEN ADHESIVE:

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

AVAILABILITY:

2 parts Kit - Packaged in Pint, Quart, and 5-Gallon size.
Also available in dual cartridges with static mixer nozzle.

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

FOR INDUSTRIAL USE ONLY:

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

WARNING!

Adequate ventilation of work place 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 (**MSDS**) for additional health and safety information.