



ISO-9001-2015 Certified

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# TECHNICAL BULLETIN

## EPOXIBOND™ EB-119M

### LOW VISCOSITY, HIGH TEMPERATURE ADHESIVE

**EB-119M** is a two component, low viscosity, heat cure epoxy designed for high temperature applications. It is especially well suited to fiber optic terminating, where optical fibers are "pot and polished" into connectors or ferrules.

#### FEATURES:

- Low Viscosity & long pot life
- High temperature applications
- High Tg
- Color change

#### APPLICATIONS:

- Fiber optic terminating
- Endoscope manufacture and repair
- Optoelectronics
- High temperature, high performance bonding
- Electronic sealing

#### TYPICAL HANDLING PROPERTIES:

Epoxybond	EB-119M
Hardener	EH-42LV-1
Mix ratio by weight, (Adhesive/Hardener)	100/5
Mixed Viscosity at 25°C, cp	800-1200
Pot Life (100 grams) at 25°C, hrs	>8

#### Cure Schedules: (Bondline Temperature)

- < 5 minutes @ 175°C
- 5 minutes @ 150°C
- 15 minutes @ 125°C
- 30 minutes @ 100°C

Use any of the above cure schedules.

#### TYPICAL CURED PROPERTIES AFTER CURE:

(Tested @ 25°C unless otherwise indicated)

Color	Dark Amber
Specific Gravity	1.18
Hardness, Shore D	91
Linear Shrinkage, %	0.08
Lap Shear Strength to Aluminum, psi	
At 25°C	2000
At 100°C	1300
Service Temperature range, °C	-55 to 230
Glass Transition Temperature, °C	158
Coefficient of Linear Thermal Expansion, 10 <sup>-6</sup> /°C	
Below Tg	38
Above Tg	174
Dielectric Strength, Volts/mil	480
Dielectric Constant at 1 kHz	3.8
Dissipation Factor at 1 kHz	0.009
Volume Resistivity, ohm-cm	8x10 <sup>15</sup>

#### INSTRUCTIONS FOR USE:

1. Weigh each 100 grams of EB-119M to 5 grams of Hardener EH-42LV-1.
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.

#### 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, Gallon, and 5-Gal

**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 workplace and ovens is essential. Refer to Material Safety Data Sheet (SDS) for additional health and safety information.

#### SHELF LIFE:

One year when stored in unopened containers at an average temperature of 25°C

**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.