



ISO-9001-2015 Certified

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TECHNICAL BULLETIN

EPOXIBOND™ EB-102/EH-12 EPOXY ADHESIVE, SEALANT, & COATING

EB-102/EH-12 epoxy system is an unfilled, medium viscosity epoxy system suitable for bonding, potting and encapsulating, coating, and sealing applications. It offers high bond strength, vibration & shock resistance. This high-performance epoxy adhesive has excellent physical, thermal, and electrical insulation properties. It can be used for bonding materials with widely different coefficient of thermal expansion including glass, metals, woods, and some plastics such as nylon, PVC, ABS etc. EB-102/EH-12 has a variable mix ratio depending on the desired properties.

TYPICAL HANDLING PROPERTIES:

Mix Ratio (EB-102/EH-12)	100/50	100/100	100/150	100/200
Mixed Viscosity at 25°C, cps	15,000-20,000	20,000-25,000	25,000-30,000	30,000-35,000
Pot life at 25°C (100 gram)	60-90 min	60-90 min	60-90 min	60-90 min
Recommended Cure	16 hr/25°C+ 2hr/100°C	16 hr/25°C+ 2hr/100°C	16 hr/25°C+ 2hr/100°C	16 hr/25°C+ 2hr/100°C
Alternate Cure	24-48 hr/25°C	24 hr/25°C	24-48 hr/25°C	24-48 hr/25°C

TYPICAL CURED PROPERTIES:

	Clear/Amber	Clear/Amber	Clear/Amber	Clear/Amber
Color	Clear/Amber	Clear/Amber	Clear/Amber	Clear/Amber
Specific Gravity	1.15	1.15	1.15	1.15
Hardness (D/A)	D-85	D-80	D-60	A-60
Lap shear strength to aluminum, psi	3400	2600	1800	1200
Linear Shrinkage (%)	0.013	0.012	0.012	0.011
Water absorption (24 hr immersion/25°C)	0.18	0.33	0.70	0.9
Glass Transition Temperature, °C	72	65	50	<40
Tensile Strength Ultimate, psi	8500	7300	3100	2600
Tensile Elongation, %	4.7	12.5	55	120
Compression Strength	33,000	34,000	-	-
Flexural Strength, psi	14,700	12,300	10,200	7,500
Dielectric Strength, Volts/mil	430	430	430	430
Dielectric Constant at 1 kHz	3.6	3.4	3.1	2.7
Dissipation Factor at 1 kHz	0.02	0.018	0.017	0.015
Volume Resistivity, ohm-cm	2.0x10 ¹⁵	2.0x10 ¹⁵	2.0x10 ¹⁵	2.0x10 ¹⁵

*Typical cured properties based on recommended cure schedule

INSTRUCTIONS FOR USE:

The individual components should be stirred or agitated without introducing excessive air before use to ensure that all fillers are properly dispersed. To obtain the best cured properties; accurate proportioning and thorough mixing are essential.

Mix contents thoroughly each time before removing material. To each 100 grams of EB-102F, add appropriate amount of EH-14 and mix it well preferably using a mechanical mixer. Vacuum degasses for about five minutes to remove any dissolved or entrapped air. Proceed with the bonding application and cure as recommended.

AVAILABILITY:

2 parts Kit - Packaged in Pint, Quart, Gallon, and 5-Gallon size.

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

Dual Cartridge: Available in 50mL, 200mL, and 400mL dual cartridges (1:1 RATIO ONLY).

FOR INDUSTRIAL USE ONLY:

These materials are intended for industrial use only, and the practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

WARNING!

Although the system contains low volatility materials, care should be taken in handling. 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 for additional health and safety information.

SHELF LIFE:

The shelf life of these materials is greater than 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.

