



ISO 9001-2008 Certified

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TECHNICAL BULLETIN

EB-155-FL HIGH IMPACT, LOW VISCOSITY EPOXY ADHESIVE

EB-155-FL is an undiluted, unfilled, low viscosity clear epoxy system that exhibits exceptional resistance to impact and thermal shock. This system has low exotherm and long work life. Applications includes, high bond strength adhesive for most similar and dissimilar substrates; LED displays, any fiber optic application. It can also be used for making in-place laminates or for protective coating on metals etc. Also it can be used for semi-rigid, moisture proof, gas tight seals between plastic and metallic or other substrates. This is also recommended for potting devices such as connector shells from which rigid or flexible wires may protrude directly through the epoxy.

TYPICAL HANDLING PROPERTIES:

Epoxybond	Part A
Hardener	Part B
Mix ratio by weight, (Resin/Hardener)	100/82
Mix ratio by volume (Resin/Hardener)	1:1
Mixed Viscosity at 25°C, cp	6000-8000
Pot Life at 25°C (100 grams), minutes	85

Recommended Cure	1 hr @ 65°C
Alternate Cure	24 @25°C

TYPICAL CURED PROPERTIES AFTER RECOMMENDED CURE:

(Tested @ 25°C unless otherwise indicated)

Color	Clear
Specific Gravity	1.20
Hardness, Shore D	55
Water Absorption (24 hr @ 25°C), %	0.17
Lap Shear Strength to AL, psi	2700
Linear Shrinkage, %	0.27
Flexural Strength (yield), psi	13,500
Flexural Modulus (yield), psi	3.2x10 ⁵
Service Temperature range, °C	-55 to 120
Glass Transition Temperature, °C	60
Coefficient of Linear Thermal Expansion, 10 ⁻⁶ /°C	
From -60°C to 25°C	59
Dielectric Strength, Volts/mil	450
Dielectric Constant at 1 kHz	4.14
Dissipation Factor at 1 kHz	0.012
Volume Resistivity, ohm-cm	1.05x10 ¹¹

INSTRUCTIONS FOR USE:

1. To use, mix at room temperature, 100 grams of EB-155-FL part A with 82 grams of Hardener Part B and vacuum degas.
2. Do not mix more than 200 grams mass due to violent exothermic reaction with evolution of fumes and smoke.
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, 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.

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.

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.