



ISO-9001-2015 Certified

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TECHNICAL BULLETIN

EPOXIBOND™ EB-350-1LE

ONE COMPONENT EPOXY ADHESIVE & ENCAPSULANT

EB-350-1LE is a high performance, single component, epoxy encapsulant which cures on exposure to heat. The product has a high viscosity and excellent viscosity stability. These characteristics make it ideal for encapsulating devices *without* the need for a physical barrier. The product is formulated specifically to pass 1000 hours of temperature/humidity/bias testing and thermal cycling up to 125°C.

TYPICAL APPLICATIONS

- Chip-on-Board (COB) encapsulation
- Encapsulation of surface mounted devices to printed circuit boards
- Particularly suited for semiconductors (Transistors, Smart Cards, watch ICs) where potting indentations are not provided.

TYPICAL HANDLING PROPERTIES:

Viscosity @ 25°C, cps (RVT-7, 60 rpm)	30,000-40,000
Pot life at 80°C, minutes	20
Shelf life	4 months @ 25°C 6 months @ below 10°C
Recommended Cure	30 min @ 150°C
Alternate Cure	2 hrs @ 125°C

TYPICAL CURED PROPERTIES:

(Tested @ 25°C unless otherwise indicated)

Color	Black
Specific Gravity	1.60
Hardness, Shore D	91
Water Absorption (24 hrs at 25°C), %	0.09
Lap Shear Strength to Aluminum, psi	
At 25°C	2400
At 100°C	1800
Thermal Conductivity, W/m ² K	0.5
Flexural Strength, psi	12,400
Flexural Modulus, psi	1x10 ⁶
Service Temperature range, °C	-55 to 175
Glass Transition Temperature, °C	120
Coefficient of Linear Thermal Expansion, 10 ⁻⁶ /°C	
Below Tg	32
Above Tg	138
Dielectric Constant at 1 kHz	3.8
Dissipation Factor at 1 kHz	0.01
Volume Resistivity, ohm-cm	>1x10 ¹⁵

INSTRUCTIONS FOR USE:

1. Use dispensing equipment for best results.
2. For small applications, apply the product using a syringe or clean spatula.
3. Avoid air entrapment to obtain optimum cured properties.
4. Proceed with the bonding or potting application and cure as recommended.

CAUTION: *May exotherm violently in excess of 0.5 inches thick or more than 50 grams for potting or encapsulating applications.*

FOR INDUSTRIAL USE ONLY:

This material is 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 work place and ovens is essential. Refer to Material Safety Data Sheet for additional health and safety information.

SHELF LIFE:

The shelf life of this material is over 4 months when stored in unopened containers below 10°C temperature. Storage at 0°C to 5°C will improve the shelf life of the product.

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.