



ISO-9001-2008 Certified

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TECHNICAL BULLETIN

EPOXIBOND EB-112LV-2 LOW VISCOSITY EPOXY ADHESIVE

EB-112LV-2 is a two components - optical, medical, and semiconductor grade epoxy resin, with low viscosity, long pot-life, and good handling characteristics.

Features & Suggested Application:

- Suggested for LCD optical lamination and sealing of glass plates.
- Ease of use: potting and casting, encapsulation and adhesive.
- **Semiconductor applications:** flip chips underfill, glob top encapsulation over wire bonds, spin coating at wafer level including wafer level packaging.
- **Fiber optic adhesive:** bundling fibers, terminating fiber into ferrule, adhesive for mounting optics inside fiber components, bonding glass cover slip over V-groove; spectral transmission of visible and IR light.
- Meets USP Class VI biocompatibility standards for medical devices and implantation applications
- Adhesion to glass, quartz, metals, wood and most plastics is very good

TYPICAL HANDLING PARAMETERS:

Epoxybond	EB-112LV-2
Hardener	EH-7M
Mix ratio by weight, (Resin/Hardener)	100/30
Mixed Viscosity at 25°C, cp	150-300
Pot Life at 25°C (200 grams), hr	>8
Recommended Cure	2 hr @ 100°C
Alternate Cure	30 min/65°C+1 hr/150°C

TYPICAL CURED PROPERTIES:

(Tested @ 25°C unless otherwise indicated)

Color	Clear
Specific Gravity	1.12
Hardness, Shore D	89
Refractive Index	1.54
% Transmission (Near IR region)	>90
Water Absorption (24 hr @ 25°C), %	0.2
Lap Shear Strength to Aluminum, psi	2100
Flexural Strength (yield), psi	19,500
Flexural Modulus (yield), psi	3.4x10 ⁵
Service Temperature	-55°C to 200°C
Glass Transition Temperature, °C	130
Coefficient of Linear Thermal Expansion, 10 ⁻⁶ /°C	
Below Tg	52
Dielectric Strength, Volts/mil	430
Dielectric Constant, 1 kHz	3.8
Dissipation Factor, 1 kHz	0.01
Volume Resistivity, ohm-cm	2x10 ¹⁶

INSTRUCTIONS FOR USE:

1. To use, mix, at room temperature, 100 grams of EB-112LV-2 with 30 grams of Hardener-7M and vacuum degas.
2. Apply to clean bonding surfaces and cure as recommended to achieve the desired properties.
3. Typical cured properties were determined using recommended cure schedule.
4. 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 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. Refer to Material Safety Data Sheet (**MSDS**) 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.