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TECHNICAL BULLETIN

EPOXIOHM™ EO-24M-1

ELECTRICALLY CONDUCTIVE EPOXY ADHESIVE

EO-24M-1 is two components, 100% solids silver-filled epoxy system designed specifically for chip bonding in microelectronic and optoelectronic applications. It is used for thermal management applications due to its high thermal conductivity. It is used for opto-electronic packaging material - LED, LCDs, and fiber optic components.

EO-24M-1 is suggested for plastic IC packaging, high power devices and high current flow, High power LEDs. It is also recommended for use in high speed epoxy chip bonding. EO-24M-1 is easy to apply by dispensing, screen printing, die-stamping, or by hand

TYPICAL HANDLING PROPERTIES:

Adhesive	PART A
Hardener	PART B
Mix ratio by weight (Adhesive: Hardener)	1:1
Mix Viscosity @ 25°C, cps	2000-4000
(Cone & Plate viscometer, spindle-51, 50 rpm)	
Work Life (25 grams), hour	>48
Shelf life:	
Two Parts Kit @ 25°C	1 year
Frozen @ -40°C	1 year

Recommended Cure	2 hrs. @ 100ºC
Alternate Cure	15 min @ 125ºC

TYPICAL CURED PROPERTIES:

Color	Silver
Specific Gravity	2.7
Hardness, Shore D	75
Lap Shear Strength to Aluminum, psi	1400
Volume Resistivity, ohm-cm	<0.0004
Glass Transition Temperature (Tg), ºC	110
Thermal Conductivity, W/m°K	2.5
Service Temperature (Tg), ºC	-55 to 200
Coefficient of Thermal Expansion, $^{10\text{-}6}$/ºC	
Below Tg	30
Above Tg	>150
Ionic Impurities*:	
Chloride (Cl^-)	< 100 ppm
Sodium (Na^+)	< 20 ppm
Potassium (K^+)	< 20 ppm

INSTRUCTIONS FOR USE:

1. Mix each component thoroughly before use.
2. Weigh each 10 grams of PART A to 10 grams of PART-B
3. Mix until uniform. Scrape the sides and bottom of container repeatedly during mixing.
4. Apply to clean bonding surfaces and cure as recommended to achieve the desired properties. Typical cured properties were determined using recommended cure schedule. Some difference in properties may occur with the alternate or other cure schedules.

Thaw premixed & frozen adhesive at room temperature for 5-10 minutes. Dispense adhesive and cure at recommended schedules.

AVAILABILITY:

2 parts Kit - Packaged in 4 OZ, 8 OZ and 1 lb. container. **Premixed and frozen** - Packaged in 3cc, 5cc and 10cc disposable syringes.

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 Safety Data Sheet **(SDS)** for additional health and safety information.