



ISO-9001-2015 Certified

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TECHNICAL BULLETIN

EPOXIOHM™ EO-21M-5

ELECTRICALLY CONDUCTIVE EPOXY ADHESIVE

EO-21M-5 is low viscosity, electrically conductive & thermally conductive, silver filled epoxy adhesive. This two-component system is designed to be cured at room temperature or the cure can be accelerated by elevated temperatures. The system is a 100% solids epoxy system, contains no solvents.

Features & Applications

- This smooth, flowing paste has a 3-4 hours working life which enables the user to apply this material by dispensing, printing or by hand.
- The versatility in application methods allows its use in a wide variety of applications.
- Exhibits superior adhesion to a wide variety of substrates including most metals, ceramics, glass and plastics.
- This material is well suited for use in electronic component and die attach, substrate attach and EMI shielding applications. It is also widely used in low temperature and cryogenic applications

TYPICAL HANDLING PROPERTIES:

EPOXIOHM	PART-A
Hardener	PART-B
Mix ratio by wt. (Resin/Hardener)	10/1
Mix Viscosity @ 25°C, cps	1000-1500
Work Life (25 grams), hour	3-4 hrs
Shelf life:	
Two Parts Kit @ 25°C	1 year
Frozen @ -40°C	1 year
Recommended Cure	1 hr @ 100°C
Alternate Cure	15 minutes @ 150°C
	3 hrs @ 80°C
	48 hrs @ 25°C

TYPICAL CURED PROPERTIES:

(Tested at 25°C unless otherwise indicated)

Color	Silver
Specific Gravity	2.7
Hardness, Shore D	75
Lap Shear Strength to Aluminum, psi	1100
Glass Transition Temperature, °C	64
Service Temperature,	-50°C-155°C
Coefficient of Thermal Expansion, ppm/°C	
below Tg	62
above Tg	180
Thermal Conductivity, W/m°K	1.6
Operating temperature	
Continuous	150°C
Intermittent	250°C
Volume Resistivity, ohm-cm	<0.0006

INSTRUCTIONS FOR USE:

1. Mix each component thoroughly before use.
2. Weigh each 10 grams of PART-A to 1 grams of Hardener 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.
5. 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 1 Oz, 2 Oz, 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 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 (SDS) 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.