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Stress Free
Reworkable
Electrically Conductive
Epoxy Paste Adhesive

IDEAL FOR:

- Large Area Die
- Substrate and Component
- Reworkability
- Mismatched CTE's

DESCRIPTION:

ME8456 is a reworkable, pure silver filled, electrically and thermally conductive epoxy paste adhesive. It exhibits outstanding flexibility for bonding materials with highly mismatched CTE's (i.e., alumina to aluminum, silicon to copper).

It can be readily reworked from 80 to 100°C and is ideal for applications such as large area die attach and substrate attach because of its ability to bond materials with highly mismatched CTE's. Meets Mil-Std 883; Method 5011.5 and NASA-ESA Outgassing Requirements***

AVAILABILITY:

ME8456 is available in syringes for automatic needle dispense applications or in jars. Both viscosity and thixotropic index can be modified to your specific needs.

APPLICATION PROCEDURES:

- (1) Thaw sealed at ambient for 30 minutes before using.
- (2) Dispense adhesive onto clean substrate.
- (3) Pre-bake dispensed adhesive at 80°C for 30 minutes to achieve optimum bonding. Pre-bake not needed in all applications.**
- (4) Cure according to one of the recommended cure schedules.

CAUTION: This product may cause skin irritation. Avoid skin contact. If contact does occur, wash immediately with soap and water. Please refer SDS for more details
 The information contained herein is believed to be reliable. All recommendations or suggestions are made without guarantee inasmuch as conditions and methods of commercial use are beyond our control. Properties given are typical values and not intended for use in preparing specifications. The user is advised to evaluate the product in the manner the product is to be used in manufacturing and in the final product. Under no circumstance shall AI Technology be liable for accidental, consequential or other damages arising from the use or handling of this product.

While AI Technology owns all proprietary rights of material formulations of its products, specific usage in the manufacturing of certain products may involve patent rights of other companies.

PRIMA-SOLDER
ME8456

TYPICAL PROPERTIES*

Electrical Resistivity (150 °C/ 60 min)	<4x10⁻⁴ ohm-cm
Dielectric Strength (Volts/mil)	N/A
Glass Transition Temp.(°C)	-20 ±10%
Current Carrying Capabilities	35 Amp/mm²
Lap-Shear Strength	>1000 psi >6.9 N/mm²
Device Push-off Strength	>2500 psi >17.2 N/mm²
Hardness (Type)	80 (A) ±10%
Cured Density (gm/cc)	3.5 ±10%
Thermal Conductivity	55 Btu-in/hr-ft²-°F ±10% 7.9 W/m-°C ±10%
Linear Thermal Expansion Coeff. (ppm/°C)	130 ±15%
Maximum Continuous Operation Temp. (°C)	<150
Avg. Viscosity(0.5 rpm, 25°C) (Brookfield DV-1,spindle CP51)	130,000 cp ±20%

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CURE SCHEDULES:

Temperature	Time	Pressure
80°C	8 hr	
100°C	4 hr	
*125°C	2 hr	*Recommend
*150°C	1 hr	using prebake

** For higher temperature curing, above 125°C and/or bonding area of over 1x1sq cm, it is recommended the dispensed adhesive be pre-baked, open-faced without parts, at 80°C for 30 minutes before parts are mounted and cured.

*** 24 Hour 125°C or 100°C vacuum or air flow oven post bake required to meet outgassing requirements

SHELF LIFE:

Storage temperature	Shelf Life
-40°C	1 yr
Pot Life	5 days @ 25°C