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PRIMA-SOLDER

ME8456

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 100ºC 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 5011.4 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 for 30 minutes before opening jar.

(2) Dispense adhesive onto clean substrate.

(3) Pre-bake dispensed adhesive at 80ºC for 30 minutes to achieve optimum bonding. Pre-bake not needed in all applications.**

(4) Cure according to one of the recommended schedules.

TYPICAL PROPERTIES*

Electrical Resistivity (150 ºC/ 60 min)	**<4x10 $^{-4}$ ohm-cm**
Dielectric Strength (Volts/mil)	**N/A**
Glass Transition Temp.(ºC)	**-20**
Current Carrying Capabilities	**35 Amp/mm²**
Lap-Shear Strength	**>1000 psi**
	>6.9 N/mm²
Device Push-off Strength	**>2000 psi**
	>13.8 N/mm²
Hardness (Type)	**80 (A)**
Cured Density (gm/cc)	**3.5**
Thermal Conductivity	**55 Btu-in/hr-ft²-ºF**
	7.9 W/m-ºC
Linear Thermal Expansion Coeff. (ppm/ºC)	**300**
Maximum Continuous Operation Temp. (ºC)	**150**
Avg. Viscosity(0.5 rpm, 24ºC) (Brookfield DV-1,spindle CP51)	**130,000 cp**

* 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 intended to be used in manufacturing and in the final product.

CURE SCHEDULES:

Temperature	Time
80ºC	8 hr
100ºC	4 hr
125ºC	2 hr
150ºC	1 hr

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

SHELF LIFE:

Storage temperature	Shelf Life
-40ºC	1 yr
0ºC	3 mo