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COOL-BOND
ME7656

Stress Free, Very High

Thermal Conductivity
Fast Curing Epoxy Paste
Insulating
Reworkable

IDEAL FOR:

- High Power Die-Attach**
- Power Module Substrate Attach**
- High Power Component Attach**

DESCRIPTION:

ME7656 is a reworkable, boron-nitride crystallite filled, electrically insulating 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). The very high thermal conductivity of this material makes it useful for bonding high-powered, large area die and components.

TYPICAL PROPERTIES*

Electrical Resistivity (150 °C/ 30 minute)	>1x10 ¹⁴ ohm-cm
Dielectric Strength (Volts/mil)	750
Glass Transition Temp.(°C)	-10
Current Carrying Capabilities	N/A
Lap-Shear Strength	1000 psi 6.9 N/mm ²
Device Push-off Strength	1200 psi 8.3 N/mm ²
Hardness (Type)	80 (A)
Cured Density (gm/cc)	2.3
Thermal Conductivity	25 Btu-in/hr-ft ² -°F 3.6 W/m-°C
Linear Thermal Expansion Coeff. (ppm/°C)	120
Maximum Continuous Operation Temp. (°C)	150
Avg. Viscosity(0.5 rpm, 24°C) (Brookfield DV-1,spindle CP51)	200,000 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.

AVAILABILITY:

ME7656 is available in syringes for automatic needle dispense applications or in jars.

APPLICATION PROCEDURES:

- (1) Thaw for 30 minutes before opening jar.
- (2) Dispense adhesive onto clean substrate.
- (3) Adhesive dots should be in cross-hatched pattern for large area bonding.
- (4) Cure according to one of the recommended schedules.

CURE SCHEDULES:

<u>Temperature</u>	<u>Time</u>
80°C	4 hr
100°C	1 hr
125°C	30 min

SHELF LIFE:

<u>Storage temperature</u>	<u>Shelf Life</u>
-40°C	1 yr
25°C	3 mo

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