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COOL-BOND
ME7857-SC

High Thermal Conductivity
Solvent Free, Thixotropic
Electrically Insulating
Epoxy Paste Adhesive
< 20 ppm Ionic Impurities

IDEAL FOR:

- Large Area Die Attach
- Component Attach Including SMT
- Heatsink and Substrate Attach
- Sealing
- Power Module Bonding

DESCRIPTION:

ME7857-SC is a medium viscosity, silicon carbide filled, flexible epoxy for snap curing application. It is a reworkable, electrically insulating and thermally conductive epoxy paste adhesive. It exhibits outstanding flexibility down to -60°C. Ideal for bonding materials having highly mismatched CTE's (i.e., alumina to aluminum, silicon to copper). The stress-free flexible adhesive maintains good stable bond strength of 100 psi from 150-250°C and has outstanding thermal stability.

ME7857-SC can be cured rapidly at 80-150°C for approximately five minutes without creating voids.

TYPICAL PROPERTIES*

Electrical Resistivity (150 °C/ 30 min.)	>1x10 ¹³ ohm-cm
Dielectric Strength (Volts/mil)	750
Glass Transition Temp.(°C)	-60
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	>20 Btu-in/hr-ft ² -°F >2.9 W/m-°C
Linear Thermal Expansion Coeff. (ppm/°C)	100
Maximum Continuous Operation Temp. (°C)	150
Avg. Viscosity(5 rpm, 24°C) Thixotropic 3-4	60,000 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:

ME7857-SC 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) Cure according to one of the recommended schedules.

CURE SCHEDULES:

<u>Temperature</u>	<u>Time</u>
80°C	30 min
100°C	10 min
125°C	5 min
150°C	1 min

SHELF LIFE:

<u>Storage temperature</u>	<u>Shelf Life</u>
-40°C	12 mo
25°C	90 da

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