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MICRO-ENCAPSULANT
MEE7650-5

**Flexible
 Microencapsulation
 Microelectronic Potting
 Low Ionic Impurities**

IDEAL FOR:

- Stress Relief Potting**
- Reworkable Encapsulant**
- Insulation Protection**
- Mechanical Protection**

DESCRIPTION:

MEE7650-5 is a low viscosity, pre-mixed frozen, long pot-life, low ionic encapsulant for microelectronic devices. It is an unfilled, electrically insulating epoxy compound which exhibits outstanding flexibility for adhering materials having highly mismatched CTE's (i.e., alumina to aluminum, silicon to copper). The stress free flexible characteristic of this material makes it useful for potting large area die and components.

MEE7650-5 has less than 20 ppm total ionic impurities. It can be readily reworked at 80-100°C. It has more than eight hours pot-life upon thawing to ambient temperature.

AVAILABILITY:

MEE7650-5 is available in syringes for automatic needle dispense applications or in jars (mixed) or in Kit form. It is also available in bi-pak (twin-syringes) with static motion mixer for meter mix direct application (shelf life: twelve months).

APPLICATION PROCEDURES:

- (1) Thaw to ambient temperature for 30 minutes before opening jar.
- (2) Dispense adhesive onto clean substrate.
- (3) Cure according to one of the recommended schedules.
- (4) Thawed material has a pot-life of eight hours. Cure according to one of the schedules.

TYPICAL PROPERTIES*

Electrical Resistivity (>80 °C/ >60 minut)	>1x10 ¹⁴ ohm-cm
Dielectric Strength (Volts/mil)	750
Glass Transition Temp.(°C)	-30
Current Carrying Capabilities	N/A
Lap-Shear Strength	N/A
Device Push-off Strength	>750 psi >5.2 N/mm ²
Hardness (Type)	55 (A)
Cured Density (gm/cc)	1.2
Thermal Conductivity	1.5 Btu-in/hr-ft ² -°F 0.21 W/m-°C
Linear Thermal Expansion Coeff. (ppm/°C)	150
Maximum Continuous Operation Temp. (°C)	150
Avg. Viscosity(0.5 rpm, 24°C)	1,000 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:

<u>Temperature</u>	<u>Time</u>
60°C	2 hr
150°C	15 min

SHELF LIFE:

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

**Shelf life is for unmixed components. If premixed: -40°C for 3 months. After mixing, pot life is 8 hours at 25°C.

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