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**Low Viscosity**

- 100% Solid, Thixotropic**
- Flexible Silver Epoxy**
- Die Attach Adhesive**
- Low Ionic Impurities**

**IDEAL FOR:**

- Large Area Die Attach
- Microwave Component and Substrate Attaches
- Module and Substrate Attaches

**DESCRIPTION:**

ME8650-DA is a low viscosity silver filled flexible epoxy paste. This low ionic silver-filled paste is reworkable, solvent free, and electrically and thermally conductive. It is ideal for automatic dispensing in die-attach application with fine definition. Absolutely solvent-free and diluent free composition with low ionic impurities for high reliability.

It exhibits outstanding flexibility for bonding materials having highly mismatched CTE's (i.e., alumina to aluminum, silicon to copper). This stress free adhesive shows consistent medium bond strength up to 250°C @ 200 psi.

**AVAILABILITY:**

ME8650-DA 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.

**DIE-ATTACH PASTE**  
**ME8650-DA**

**TYPICAL PROPERTIES\***

|   |  |
|---|--|
| Electrical Resistivity<br>( 150 °C/ 30 min. ) | <4x10 <sup>-4</sup> ohm-cm                               |
| Dielectric Strength (Volts/mil)               | N/A  |
| Glass Transition Temp.(°C)                    | -40 ±10%   |
| Current Carrying Capabilities                 | >20 Amp/mm <sup>2</sup>                                  |
| Lap-Shear Strength                            | >1200 psi<br>>8.3 N/mm <sup>2</sup>                      |
| Device Push-off Strength                      | >1900 psi<br>>13 N/mm <sup>2</sup>                       |
| Hardness (Type)                               | 80 (A) ±10%  |
| Cured Density (gm/cc)                         | 3.5 ±10%   |
| Thermal Conductivity                          | 25 Btu-in/hr-ft <sup>2</sup> -°F ±10%<br>3.6 W/m-°C ±10% |
| Linear Thermal Expansion<br>Coeff. (ppm/°C)   | 100 ±15%   |
| Maximum Continuous Operation Temp. (°C)       | <150   |
| Pot Life                                      | 30 days  |
| Viscosity(5 rpm,24°C)                         | 8,000 cps ±20%   |
| TI=6  |  |
| Thixotropic Index                             |  |

\* 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> | <u>Pressure</u> |
|--------------------|-------------|-----------------|
| 125°C              | 30 min      |                 |
| 150°C              | 15 min      |                 |
| 175°C              | 8 min       |                 |

**SHELF LIFE:**

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

**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.

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