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**PRIMA-BOND**  
**EG7658**

**Flexible Epoxy Adhesive**  
**High Thermal Conductivity**  
**2-Component, Premixed Frozen**  
**Stress-Free Bonding and**  
**Reworkable**

**IDEAL FOR:**

- High Power Die and Component Attach**
- Substrate Attach**
- Heatsink Attach**
- Large Area Bonding**
- Bonding Adherends with Mismatched CTE's**

**DESCRIPTION:**

EG7658 is a reworkable, aluminum nitride filled, electrically insulating and thermally conductive epoxy paste adhesive. It which exhibits outstanding flexibility for bonding materials with highly mismatched CTE's (ie., alumina to aluminum, silicon to copper). The very high thermal conductivity and flexibility make it excellent for bonding high-powered, large area die and components. EG7658 can be readily reworked at 80-100°C. Caution: AIN under high humidity and temperature may cause corrosion to copper or other non-noble metal.

**AVAILABILITY:**

EG7658 is available in syringes for automatic needle dispense applications or in jars. Upon request, the material can be shipped premixed and frozen.

**APPLICATION PROCEDURES:**

- ( 1 ) Store Part A and Part B at ambient.
- ( 2 ) Mix A and B 1:1 by weight or volume.
- ( 3 ) Cure according to one of the recommended schedules.

\*\*If material is premixed and frozen, thaw for 30 minutes, apply and cure according to one of the recommended cure schedules.

**TYPICAL PROPERTIES\***

Electrical Resistivity ( 150 °C/ 60 minutes )	>1x10 <sup>14</sup> ohm-cm
Dielectric Strength (Volts/mil)	> 750
Glass Transition Temp.(°C)	-25
Current Carrying Capabilities	NA
Lap-Shear Strength	1000 psi 6.9 N/mm <sup>2</sup>
Device Push-off Strength	1800 psi 12.4 N/mm <sup>2</sup>
Cured Density (gm/cc)	2.3
Thermal Conductivity	25 Btu-in/hr-ft <sup>2</sup> -°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)	305,000 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>
80°C	4 hr
100°C	2 hr
125°C	1 hr
150°C	30 min

**SHELF LIFE:**

<u>Storage temperature</u>	<u>Shelf Life</u>
25°C	***1 yr

\*\*\*Shelf life is for unmixed components. If premixed: -40°C for 6 months. After mixing, pot life is 4 hours at 25°C.

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