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# Flexible Insulating Epoxy Two Component Pastes Thermally Conductive Stress-Free Bonding

Available in Pre-mixed Form

## **IDEAL FOR:**

Heat-Sink Attach Substrate & Component Attaches Large Area Bonding Bonding Adherends with Mixmatched CTE's

## **DESCRIPTION:**

EG7655 is a reworkable, alumina filled, electrically insulating and thermally conductive epoxy paste adhesive which exhibits outstanding flexibility for bonding materials with highly mismatched CTE's (i.e., alumina to aluminum, silicon to copper). EG7655's high thermal conductivity and flexibility make it excellent for bonding large area substrates, components and heat sinks where thermal management is critical.

EG7655 exhibits reduced bond strength at 80-100°C for easier rework. The cured adhesive is flexible with Type A hardness of 80 and tensilie elongation of more than 30%.

#### AVAILABILITY:

EG7655 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. Part A has higher viscosity.
- (3) Cure according to one of the recommended schedules.

# EG7655

#### **TYPICAL PROPERTIES\***

Electrical Resistivity ( 150 ºC/ 60 minutes)	>1x10 <sup>14</sup> ohm-cm
Dielectric Strength (Volts/mil)	> 750
Glass Transition Temp.(°C)	-20 ±10%
Current Carrying Capabilities	N/A
Lap-Shear Strength	>1000 psi
Device Push-off Strength	>6.9 N/mm² >1800 psi >12.4 N/mm²
Cured Density (gm/cc)	2.3 ±10%
Thermal Conductivity	12 Btu-in/hr-ft <sup>2</sup> -°F ±10%
	1.7 W/m-ºC ±10%
Linear Thermal Expansion Coeff. (ppm/⁰C)	140 ±10%
Maximum Continuous Operation Temp. (°C) <150	
Avg. Viscosity(0.5 rpm, 25°C) (Brookfield DV-1, spindle CP51)	280,000 cp ±20%

\* 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>	Time
25°C	120 hr
80°C	8 hr
100°C	4 hr
125°C	2 hr
150°C	1 hr

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

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

#### **SHELF LIFE:**

Storage temperature 25°C Shelf Life

\*\*\*1 yr

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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