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**COOL-GEL  
 CGL8503**

**Non-Silicone Compound  
 Form Gel @ 80°C  
 Very High Thermal Conductivity**

**IDEAL FOR:**

- Thermal Grease Replacement**
- Thermal Potting Compound (Low Ionic Impurities)**
- Power Device and Heatsink Interface**

**DESCRIPTION:**

CGL8503 is a reworkable, metal powders filled, thermally conductive paste which exhibits outstanding thermal transfer relative to most adhesives. It may be used as is to replace traditional thermal greases. It forms a gel-like structure at elevated temperature to prevent any possible spreading to other components. While it is not designed to be electrically conductive, CGL8503 should not be used where electrical insulation is important. While it has some holding strength, mechanical supports are recommended for devices that may subject the gel/component to creep as well as other applied mechanical stresses.

**AVAILABILITY:**

CGL8503 is available in jars or syringes for automatic needle dispense applications.

**APPLICATION PROCEDURES:**

- ( 1 ) Thaw for 30 minutes before opening jar.
- ( 2 ) Dispense adhesive onto clean substrate. Syringe application may require >50psi pressure.
- ( 3 ) Cure according to the recommended schedule only when necessary.\*\*

**TYPICAL PROPERTIES\***

Electrical Resistivity	<1x10 <sup>-2</sup> ohm-cm
Lap-Shear Strength	< 300 psi < 2.1 N/mm <sup>2</sup>
Device Push-off Strength	< 300 psi < 2.1 N/mm <sup>2</sup>
Hardness (Type)	Gel
Cured Density (gm/cc)	5.0
Thermal Conductivity	58 Btu-in/hr-ft <sup>2</sup> -°F 8.3 W/m-°C
Maximum Continuous Operation Temp. (°C)	150
Avg. Viscosity(0.5 rpm, 24°C)	200,000 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	16 hr

\*\* Generally no curing is necessary for normal applications. Curing is recommended only when extreme care must be exercised for possible contamination in neighboring sites.

**SHELF LIFE:**

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

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