

## Electrolube® PCG400

### One-part, Pre-Cured, Thermally Conductive Gel

#### DESCRIPTION

**Electrolube® PCG400** is a one-part, thermally conductive gel with a bulk thermal conductivity of 4.0 W/m-K. It is suitable for automatic dispensing and does not require any mixing or curing. Due to the pre-cured formula, **PCG400** provides high vibration stability and pump-out resistance. **PCG400** requires extremely low pressure to conform to the contours of the components, thus preventing unwanted stress on sensitive electronic components and solder joints.

READ ENTIRE TECHNICAL BULLETIN BEFORE USING THIS PRODUCT

#### FEATURES AND BENEFITS

- High thermal conductivity of 4 W/m-K; aids rapid heat transfer over uneven surfaces
- Very low compression force
- Suitable for a bond line thickness of 100 to 1500  $\mu\text{m}$
- No vertical flow or pump-out
- Pre-cured compound; allows simple and efficient rework
- No mixing or curing required

#### APPROVALS

Standard	Status
RoHS	Compliant
REACH	Compliant

#### PRODUCT INFORMATION

Packaging sizes: 30cc syringe and 330cc cartridge

**TYPICAL PROPERTIES**

Category	Result	Unit	Test Method
<b>Material Properties</b>			
Color	Blue	-	Visual
Resin Base	Silicone	-	-
Low Shear viscosity	1000	Pa-s	Spiral Viscometer
High Shear viscosity	100	Pa-s	Spiral Viscometer
Density	3.4	g/cc	ASTM D972
Operating Temperature Range	- 60 to +180	°C	-
Bond Line Thickness	100 to 1500 0.004 to 0.060	µm inch	-
Flammability	Meets V-0		UL94
<b>Electrical Properties</b>			
Dielectric Breakdown	12	kV/mm	ASTM D149
Volume Resistivity	>10 <sup>11</sup>	Ohm-m	ASTM D257
<b>Thermal Properties</b>			
Thermal Conductivity	4.0	W/m-K	ASTM D5470
Thermal Impedance at 0.1 mm	0.07	°C-inch <sup>2</sup> /W	ASTM D5470

**APPLICATION GUIDELINES**

PCG400 is developed as a thermally conductive gel. For gap filling applications the material can be dispensed either manually or via automated equipment into the desired location.

**ADDITIONAL INFORMATION**

**Shelf Life:** 60 Months

The product should be tested to ensure its suitability for the end application conditions.

**SAFETY & WARNING**

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available.**

**CONTACT INFORMATION**

[www.macdermidalpha.com](http://www.macdermidalpha.com)

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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