



Dow Corning® TC-5121 Thermally Conductive Compound

Non-curing, thermally conductive compound

Material Properties:

Property	Dow Corning® TC-5121 Thermally Conductive Compound
Description	Thermally conductive compound
Form	Non-curing compound
Viscosity average	85,013 Centipoise at 1 rpm
Specific gravity	4
Non-volatile content at 120°C	99.93%
Volatile content at 120°C	< 0.1%
Color	Gray
Thermal resistance (ASTM D5470) @ 25 µm under 40 psi	0.096°C-cm ² /W
Thermal conductivity	2.5 W/m-K
Volume resistivity	1.22 x 10 ¹⁰ ohm-cm
Dielectric strength	72 volts/mil
Dielectric constant at 1 kHz	20
Dielectric dissipation factor at 1 kHz	0.04
Container size	1 kg tub
Mix ratio	1-part (no mixing)
Shelf life	24 months from date of manufacture

Description

Dow Corning® TC-5121 Thermally Conductive Compound is an excellent solution for medium power devices. TC-5121 is formulated with an advanced silicone fluid that interacts with thermally conductive filler particles to form a highly stable matrix that helps to prevent pump-out and other common failure mechanisms. TC-5121 delivers very good thermal performance and high reliability at an economical price point.

Key Characteristics

- Thermal conductivity: 2.5 W/m-K
- Good thermal performance at an economical price
- Achieves thin bond lines
- Pump-out resistant

Potential Uses

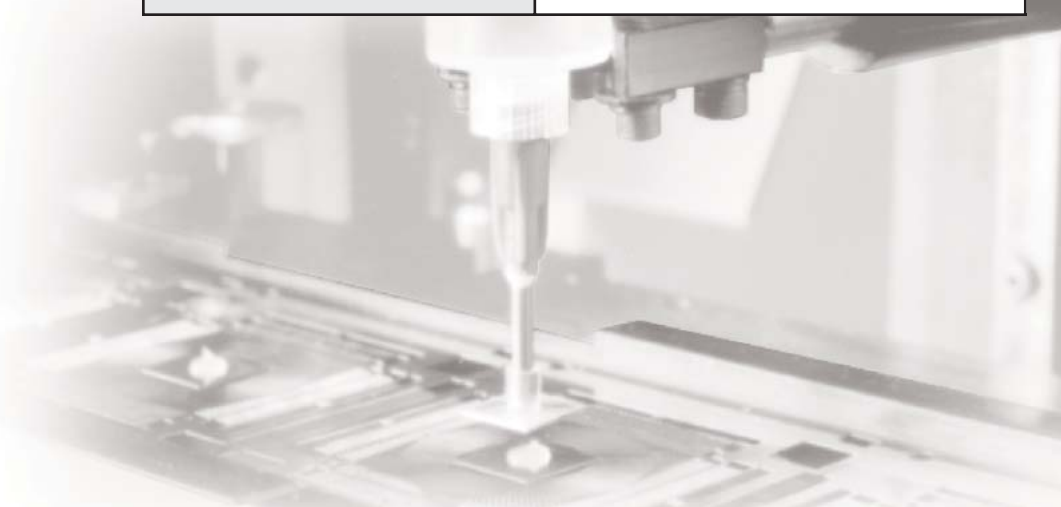
Thermal interface material for use between heat generating device and heat sink in a variety of medium-power electronics and industrial applications

Applications

- Microprocessors
- Flip-chip BGAS
- Chipsets
- Memory modules
- Power chucks
- LEDs
- A variety of other industrial uses

Application Methods

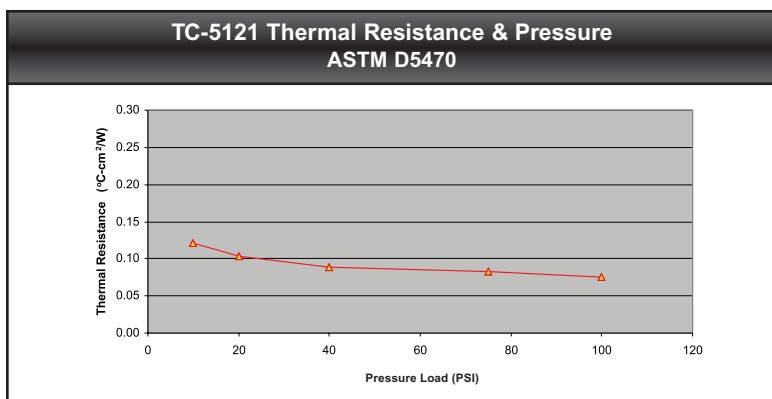
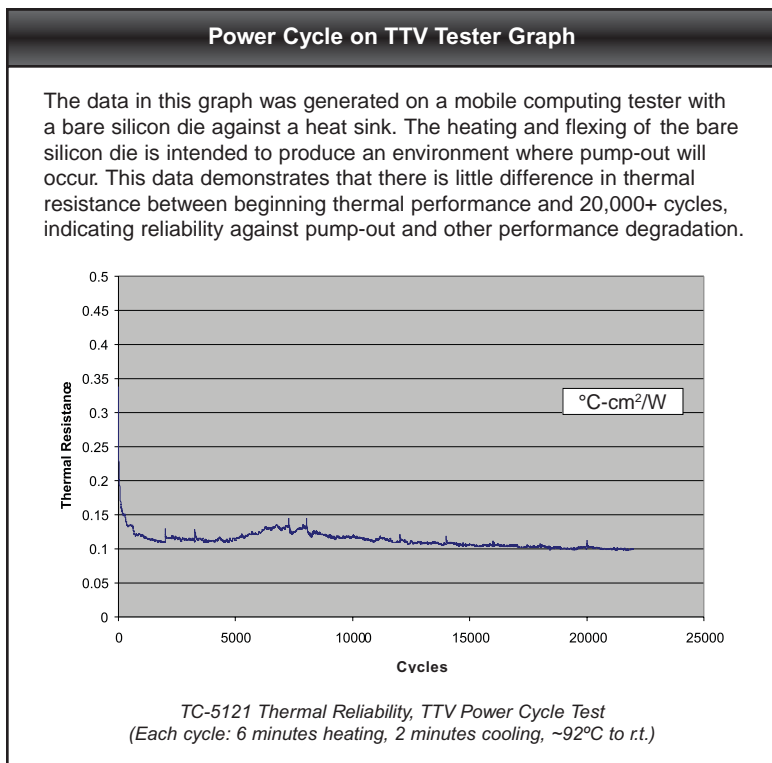
- Screen print
- Stencil print
- Dispense



Important Features and Benefits

Features	Benefits
Good thermal performance; economical price	<ul style="list-style-type: none"> • High value for the cost
Small filler particle size	<ul style="list-style-type: none"> • Thinner bond lines for lower thermal resistance
Advanced silicone fluid that interacts with thermally conductive filler particles	<ul style="list-style-type: none"> • Pump-out resistant • Improved stability and reliability

Performance Data



Need Additional Help?

Dow Corning offers a broad range of thermal products and solutions to meet your current and emerging needs.

For additional information on the complete line of *Dow Corning*[®] brand thermal management products, please call your local sales office, see www.dowcorning.com/electronics, or e-mail electronics@dowcorning.com.

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