

# Dow Corning® Brand TC-5121 Thermally Conductive Compound

*Non-curing thermally conductive compound*

## Description

Dow Corning® TC-5121 Thermally Conductive Compound is an excellent thermally conductive 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 Features

- 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

## Typical Applications

- Microprocessors
- Flip-chip BGAs
- Chipsets
- Memory modules
- Power chucks
- LED
- A variety of other industrial uses

## Application Methods

- Screen print
- Stencil print
- Dispense

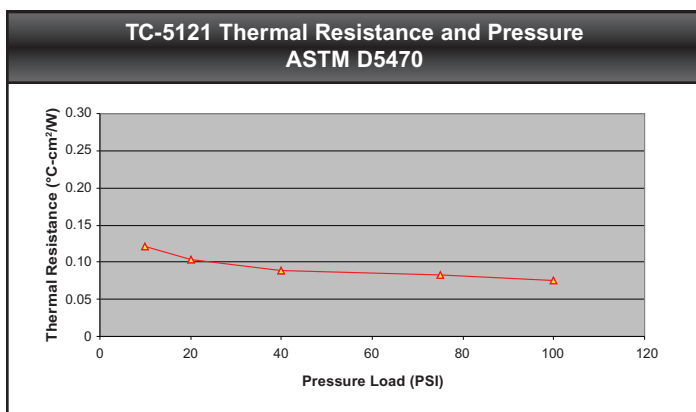
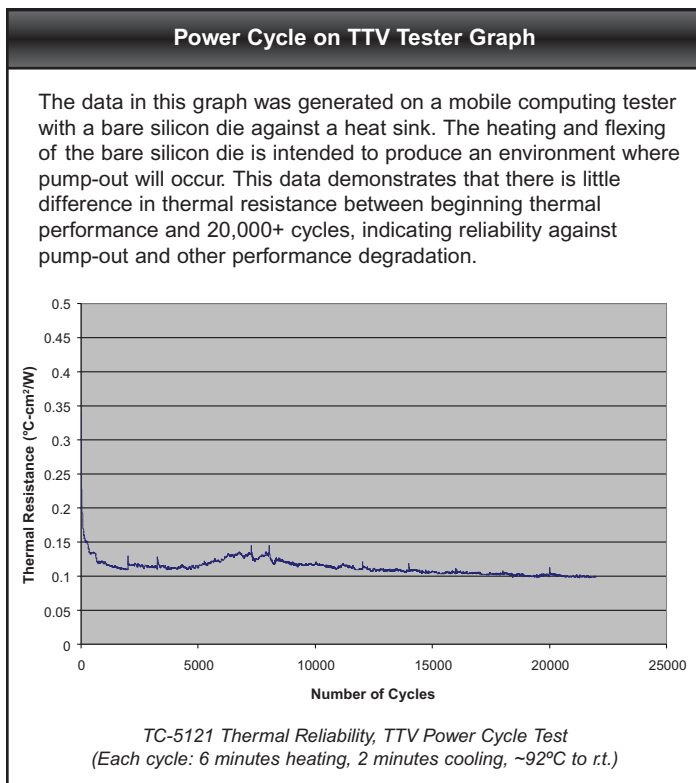
## Material Properties

Property	Dow Corning® TC-5121 Typical Values
Description	Thermally conductive compound
Form	Non-curing compound
Viscosity average	65,000 - 100,000 cP
Specific gravity	4.2
Non-volatile content at 120°C	99.93%
Volatile content at 120°C	< 0.1%
Color	Gray
Thermal resistance (ASTM D5470) @ 40 psi	0.096°C-cm <sup>2</sup> /W
Thermal conductivity	2.5 W/m-K
Volume resistivity	1.22 x 10 <sup>12</sup> ohm-cm
Dielectric strength	75 volts/mil
Dielectric constant at 1 kHz	19.61
Dielectric dissipation factor at 1 kHz	0.0415
Container size	1 kg tub
Mix ratio	1-part (no mixing)

## Important Features and Benefits

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

## Performance Data



## Learn More

For additional information or Material Safety Data Sheets on the complete line of *Dow Corning*<sup>®</sup> thermal interface management solutions, please call your local sales office, visit [dowcorning.com/electronics](http://dowcorning.com/electronics), or send a message to [electronics@dowcorning.com](mailto:electronics@dowcorning.com).

Front images: AV11148, AV02251

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