

# Dow Corning<sup>®</sup> TC-5622 Thermally Conductive Compound

## FEATURES & BENEFITS

- Solventless formulation
- Easy application
- Low thermal resistance
- High thermal conductivity
- Good stability and reliability

## COMPOSITION

- Filled polydimethylsiloxane

Gray, flowable, non-curing thermally conductive compound

## APPLICATIONS

Dow Corning<sup>®</sup> TC-5622 Thermally Conductive Compound is designed to provide efficient thermal transfer for the cooling of electronic modules, including computer MPUs and power modules.

## TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Property	Unit	Result
Viscosity	cP	95,000
	Pa-sec	95
Specific Gravity (Uncured)	-	2.5
Thermal Conductivity	W/mK	4.3
Thermal Resistance at 25N/cm <sup>2</sup>	°C*cm <sup>2</sup> /W	0.06
Bond Line Thickness	inch	0.0008
	mm	0.02
Volume Resistivity	ohm-cm	7E+12

## DESCRIPTION

Dow Corning<sup>®</sup> brand thermally conductive compounds are grease like silicone materials, heavily filled with heat-conductive metal oxides. This combination promotes high thermal conductivity, low bleed and high-temperature stability. The compounds are designed to maintain a positive heat sink seal to improve heat transfer from the electrical/electronic device to the heat sink or chassis, thereby increasing the overall efficiency of the device. Electronic devices are continually designed to deliver higher performance. Especially in the area of consumer electronics, there is also a continual trend towards smaller, more compact designs. In combination these factors typically mean that more heat is generated in the device. Thermal management of electronic

devices is a primary concern of design engineers. A cooler device allows for more efficient operation and better reliability over the life of the device. As such, thermally conductive compounds play an integral role here. Thermally conductive materials act as a thermal “bridge” to remove heat from a heat source (device) to the ambient via a heat transfer media (i.e. heat sink). These materials have properties such as low thermal resistance, high thermal conductivity, and can achieve thin Bond Line Thicknesses (BLTs) which can help to improve the transfer of heat away from the device. Thermal greases have advantage over other TIMs due to their relatively low cost, ease of application on to heat sinks (screen printing), and ease of re-work.

## APPLICATION METHODS

- Screen print
- Stencil print
- Dispense

## SOLVENT EXPOSURE

In general, the product is resistance to minimal or intermittent solvent exposure, however best practice is to avoid solvent exposure altogether.

## USABLE LIFE AND STORAGE

The product should be stored in its original packaging with the cover tightly attached to avoid any contamination. Store in accordance with any special instructions listed on the product label. The product should be used by the indicated Exp. Date found on the label.

## HANDLING

### PRECAUTIONS

#### PRODUCT SAFETY

**INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEBSITE AT DOW CORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.**

## LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

## HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship

organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, [dowcorning.com](http://dowcorning.com) or consult your local Dow Corning representative.

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Tell us about your performance, design and manufacturing challenges.

Let us put our silicon-based materials expertise, application knowledge and processing experience to work for you.

**For more information** about our materials and capabilities, visit **[dowcorning.com](http://dowcorning.com)**.

To discuss how we could work together to meet your specific needs, email [electronics@dowcorning.com](mailto:electronics@dowcorning.com) or go to [dowcorning.com/contactus](http://dowcorning.com/contactus) for a contact close to your location. Dow Corning has customer service teams, science and technology centers, application support teams, sales offices and manufacturing sites around the globe.

*We help you invent the future.™*

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