

# SILCOOL™ TIS420C Thermally Conductive Gap Filler Gel

## Product Description

SILCOOL TIS420C is a one component thermally conductive Gap Filler. TIS420C is dispensed as a thixotropic paste, and cures at room temperature to become a mechanically stable silicone gel. Due to its curing performance, SILCOOL TIS420C provides improved stability in 3-dimensional and vertical TIM applications that require a stress-absorbing, pump-out resistant, mechanically stable, and repairable heat path.

## Key Features and Typical Benefits

- High thermal conductivity
- Physical stability due to polymerization during cure process
- Soft, stress-absorbing post cure properties
- Can be dispensed in various thickness
- Conforms to intricate shapes and component designs
- Use within a broad operating temperature range
- Repairable

## Typical Physical Properties

UNCURED PROPERTIES (23°C,50%RH)		TIS420C
Appearance		Paste, Gray
Viscosity	Pa·s	300
Tack-free time	min	5
CURED PROPERTIES (2 days @ 23°C, 50%RH)		
Appearance		Gel, Gray
Density (23°C)	g/cm <sup>3</sup>	3.20
Thermal conductivity *1	W/(m·K)	4.2
Thermal resistance *2 (BLT: 50µm)	mm <sup>2</sup> ·K/W	20
Volume resistivity	MΩ·m	3.0×10 <sup>3</sup>
Dielectric strength	kV/0.25mm	5.0
Low volatile siloxane (D <sub>4</sub> -D <sub>10</sub> )	ppm	100

\*1 : Hot wire method \*2 : Laser flash method

Typical properties are average data and are not to be used as or to develop product specifications.

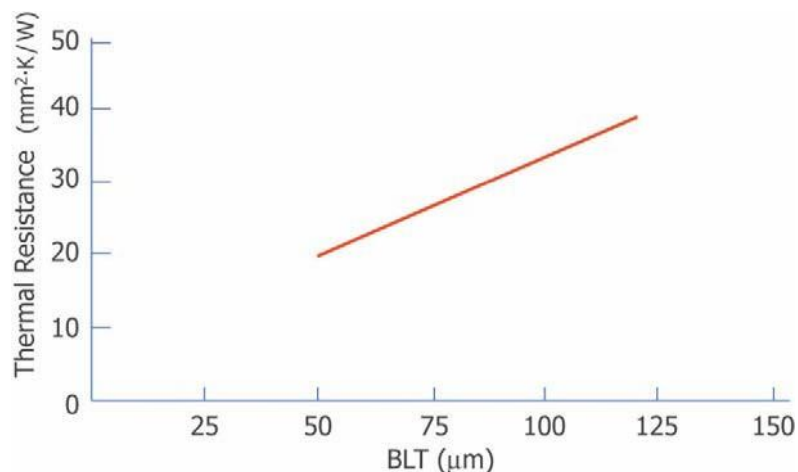
## Applications

- Thermal interface for electronic components in consumer and automotive applications

## General Considerations for Use

- Substrate surface should be thoroughly cleaned with a suitable solvent such as alcohol, xylene methyl ethyl ketone (MEK) etc.
- Wear eye protection and protective gloves as required while handling.
- Adequate ventilation must be maintained in the work place at all times.
- General adhesive for metals, glass, plastics, etc.

## Thermal Resistance



Lab data; lab data should not be used as or to develop product specifications.

### Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement, or recommendation to practice any invention covered by any patent without authority from the owner of the patent.

### Product Safety, Handling, and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment, if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at [www.momentive.com](http://www.momentive.com) or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Store in a cool, dry place out of direct sunlight. Keep out of the reach of children.

### Packaging

333ml cartridge in case of 10

### Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular application(s).

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