

SILCOOL™ TIG4090 THERMALLY CONDUCTIVE SILICONE COMPOUND

Description

SILCOOL TIG4090 is a silicone compound that provides extra low thermal resistance and high thermal conductivity. The workability of SILCOOL TIG4090 makes it a good candidate for screen-printing and dispensing processes, and its thermal performance can help solve heat problems arising from the higher frequency, miniaturization, and power generation trends in the development of electric and electronic devices.

Additionally, it has minimized oil bleeding under harsh operating conditions to help maintain its grease properties longer as compared to most similar products.

Key Features and Typical Benefits

- Very thin BLT which contributes to low thermal resistance
- High volume resistivity and high dielectric strength. Electrically insulative
- Good workability enabling automated dispensing, screen printing and stamping applications
- No solvent used. Stable at room temperature and elevated temperatures

Typical Physical Properties

Criteria		Properties
Appearance		Gray paste
Density (23°C)	g/cm ³	3.3
Viscosity* ¹ (20 rpm)	(Pas)	120
Thermal Conductivity* ²	W/m·K	3.3
Thermal Resistance * ³ (at 40 psi)	cm ² .K/W	0.030

Thermal Resistance ^{*3} (at 80 psi)	cm ² .K/W	0.025
Minimum BLT	μm	7
Volume Resistivity	Ω·cm	2.6 x 10 ¹²
Dielectric Strength	kV/mm	21.6
Volatile Siloxane (D ₄ ~D ₁₀)	ppm	<100
1: HVDV #7 2: Hot wire method 3: ASTM 5470 Typical properties are average data and are not to be used as or to develop specifications.		

Packaging

- 1kg can

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 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.

Limitations

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

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