Technical Data Sheet

Chemtools® Pty Ltd | Ph: 1300 738 250 (+61 2 9833 9866) | Unit 2, 14 – 16 Lee Holm Road ST MARYS NSW 2760 Safety Data Sheets, product photos, and other information can be obtained by visiting www.chemtools.com.au



Thermalle™ SUB-ZERO

Silicone Thermally Conductive Grease (Heatsink Compound)

PART NUMBER	AVAILABLE SIZE*
CT-TM001-05PT	5ml Syringe
CT-TM001-10PT	10ml Syringe
CT-TM001-50T	50g Tube
CT-TM001-250G	250g/6oz Semco Cartridge
CT-TM001-1KG	1Kg Tub

^{*}Available colours and/or sizes may change without notice.

DESCRIPTION

Thermalle™ SUB-ZERO Silicone Thermally Conductive Grease is a high-performance non-flowing thermal interface material for use in electronic applications that require efficient heat transfer without concern of corroding elements. It is formulated with a silicone base and high-quality thermally conductive fillers to provide excellent conductivity and stability over a wide temperature range across all heat generating devices.

SUB-ZERO is a non-corrosive viscous paste displaying low bleed for long lasting performance and suitability across a wide range of materials. It is commonly used in computer processors, graphics cards, power supplies, and lighting systems, and can be found in the automotive industry applied to engine control units, power steering systems, and transmission control modules.

APPLICATION

Ensure all surfaces and components are dry and free of all contaminants and old grease prior to application. Apply by brush, spatula or pneumatic dispenser with good coverage and an even distribution.

Application is recommended in thin cross-sectional thicknesses down to 1mm.

TECHNICAL DATA

Thermo-conductive Constituent Metal oxide
Carrier Silicone Oil

Appearance White, viscous paste Odour None, odourless

Viscosity 500,000 – 1,000,000 cps

Thermal Conductivity >1.5 W/m-KThermal Resistance $0.12^{\circ}\text{C cm}^2/\text{W}$ Density $2.0-2.5 \text{ g/cm}^3$ Temperature Range $-50 \text{ to } +200^{\circ}\text{C}$

Weight Loss -0.6% after 200hrs @ 150°C

Bleed 0.4% Dielectric Strength 20 kV/mm Permittivity 2.5 to 3.5 @ 1kHz Electrical Resistance $10^{13} \, \Omega$ -cm

Shelf Life >3 years when stored under recommended conditions

FIRST AID & SAFETY PRECAUTIONS

Always refer to Safety Data Sheet/s before use. Use proper Personal Protection Equipment. Do not get in eyes, on skin, or on clothing. Use with adequate ventilation. Avoid breathing fumes. Keep away from heat, sparks, open flames, and hot surfaces. This product may produce adverse health conditions, ranging from minor skin irritation to serious systemic effects. It should not be used, stored, or transported until the handling precautions and recommendations as stated in the Safety Data Sheet/s for this product have been fully understood by all persons who will work with the material.

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STORAGE & TRANSPORT

Refer to Safety Data Sheet/s for recommendations. As a general precaution, keep containers tightly closed, protect from sunlight, and do not expose to temperatures exceeding 50° C. Store in a cool, dry place at room temperature ($5 - 40^{\circ}$ C). Do not return any unused material to its original container. Containers should be secured and stored upright during transit.

DISCLAIMER

Every effort has been made to ensure the information provided in this document is accurate at the date of publication. Chemtools® Pty Ltd expressly recommends that the user make his/her own assessment to determine the suitability of the product for its intended purpose prior to application. Chemtools® Pty Ltd shall not be responsible for loss, damage, or injury, resulting from the reliance upon, or failure to adhere to, any recommendations or information contained herein; nor from abnormal use of the material; nor from any hazard inherent in the nature of the material.