

CoolTherm™ TC-404 Thermally Conductive Grease

Description

LORD CoolTherm™ TC-404 thermally conductive grease is a non-reactive, solvent-free silicone material designed for applications where a highly conductive thermal interface material is required and where the device may later need to be easily removed from the heat sink.

Features and Benefits

High Thermal Conductivity – provides thermal conductivity for applications where superior heat dissipation is required.

Reworkability – easily removed with isopropyl alcohol or acetone, eliminating the use of toxic solvents.

Thin Bondlines – achieves thin bondlines of ≤ 1 mil, minimizing the thermal pathway and maximizing heat flow.

High Reliability – provides excellent resistance to moisture and temperature cycling; low bleed.

Application

Mixing – When not stored in a syringe, thoroughly mix grease before using.

Applying – Before use with dispensing equipment, allow grease to be warmed to room temperature (ideally 20-25°C). Allow grease to warm by placing syringe in a vertical (upright) position with dispense tip facing downward in an ambient environment. Consult handling instructions** for specific guidelines.

Mount syringe onto the dispensing equipment that has been thoroughly cleaned and purge grease through the system until an unbroken flow of grease is extruded. The system is now ready to begin dispensing.

Cleanup – Disposable containers and utensils are recommended when working with greases. However, when disposable materials are impractical, grease can be removed by cleaning equipment with solvents such as isopropyl alcohol or acetone. Solvent-cleaned utensils should be thoroughly dried before reuse; any remaining solvent can contaminate the next application.

** Handling instructions are available on LORD.com.

Typical Properties*

Appearance	Gray Paste
Viscosity, cps @ 25°C TA AR550 Rheometer	
Shear Rate 5/sec	212,400
Shear Rate 10/sec	141,800
Specific Gravity	2.9
Bleed, % 24 hours @ 150°C	Nil
Weight Loss, % 24 hours @ 150°C	3
Thermal Conductivity, W/mK	4.3

*Data is typical and not to be used for specification purposes.

LORD TECHNICAL DATA

Shelf Life/Storage

- Material Stored in Syringe

Shelf life is six months from date of manufacture when stored at -30°C in original, unopened syringe. Syringe must be maintained at -30°C in a vertical (upright) position with the dispense tip facing down. Do not store syringe on its side (horizontally).

This material is shipped and stored frozen. Consult handling instructions** for thawing.

- Material to be Remixed

Shelf life is six months from date of manufacture when stored at 25°C in original, unopened container.

Cautionary Information

Before using this or any LORD product, refer to the Safety Data Sheet (SDS) and label for safe use and handling instructions.

For industrial/commercial use only. Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

Values stated in this technical data sheet represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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