

5.0 W/m-K High Reliability, Thin Bondline Thermal Grease

Parker Chomerics THERM-A-GREASE 50 is a high-performance, thin bondline thermal grease engineered for the efficient dissipation of heat in electronic components. Comprising silicone-based materials, it ensures high reliability in demanding applications. Key specifications of GREASE 50 include:

- Thermal impedance: of 0.013 °C-in²/W at 40 psi and 0.011 °C-in²/W at 100 psi at minimum bond line. The minimum bond line of 0.001" (0.025 mm) makes GREASE 50 ideal for applications with stringent manufacturing and assembly tolerances. It operates effectively under low pressure, making it suitable for heat transfer in delicate or densely packed PCB components. THERM-A-GREASE 50 is rigorously tested for high reliability. It withstands thermal cycling, long-term heat aging, and high humidity conditions, ensuring stability without pumping out or hardening/cracking over time in extreme environments. Engineered for user convenience, GREASE 50 is easily applied via stenciling, screen printing, or dispensing, and allows straightforward rework for repairs. It requires no mixing, curing, or refrigeration, simplifying both application and storage processes. This advanced thermal grease is designed to meet the precise needs of engineers seeking dependable thermal management solutions in high-performance electronics.



PRODUCT FEATURES:

- Thin bondline: 0.001" (0.025mm)
- Require low compression force
- Can be stenciled, screen-printed, or dispensed
- High reliability

TYPICAL APPLICATIONS:

- CPUs and GPUs
- Memory modules
- Power supplies
- Power conversion equipment
- Lighting applications
- Automotive control modules and electronics

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THERM-A-GREASE 50 PRODUCT INFORMATION

	Typical Properties [†]	GREASE 50	Test Methods
Physical	Color	White	Visual
	Specific Gravity	3.0	ASTM D792
	Viscosity, cps	220,000	--
	Typical Minimum Bond Line Thickness, in (mm)	0.0010 (0.025)	Chomerics
Thermal	Thermal Impedance, °C-in ² /W (°C-cm ² /W) @ 40 psi, @ 0.001 in (0.025 mm) thick	0.013 (0.084)	ASTM D5470
	Thermal Impedance, °C-in ² /W (°C-cm ² /W) @ 100 psi, @ 0.001 in (0.025 mm) thick	0.011 (0.071)	ASTM D5470
	Heat Capacity, J/g-K	1	ASTM E1269
	Operating Temperature Range, °F (°C)	-58 to 392 (-50 to 200)	Chomerics
Electrical	Dielectric Constant @ 1,000 kHz	7.0	ASTM D 150
	Dissipation Factor @ 1,000 kHz	0.002	Chomerics
Regulatory	Flammability Rating	V0 (Tested by Chomerics)	UL 94
	RoHS Compliant	Yes	Chomerics Certification
	Outgassing, % TML (% CVCM)	0.10 (0.03)	ASTM E595
	Shelf Life, months from date of manufacture	12	Chomerics
	Storage Conditions, °F (°C) @ 50% Relative Humidity	50 to 90 (10 to 32)	Chomerics

[†] Typical properties: these are not to be construed as specifications.

* Not recommended for dielectric applications.

** Material may settle during storage, remixing may be required.