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Thermal Greases

» [Sil-Free™](#) [RoHS Compliant](#)  
silicone - free synthetic thermal grease

» [Ther -O- Link](#) [RoHS Compliant](#)  
silicone - based thermal grease

» [Ultrastick](#) [RoHS Compliant](#)  
silicone - free solid phase change compound in convenient application bar

» [Thermalcote™](#) [RoHS Compliant](#)  
silicone - based thermal compound in a synthetic base fluid for efficient application

» [Thermalcote™II](#) [\(discontinued\)](#)  
Aavid Thermalloy can no longer supply Thermalcote™II product.  
Please see our [Sil -Free™](#) line of product instead.

Sil- Free™

Sil- Free™ 1020 is a metal -oxide - filled, silicone - free synthetic grease specially formulated to enhance heat transfer across the interface between the semiconductor case and the heat sink without the migration or contamination associated with silicone based products.



Dry interface case -to - sink thermal resistance is typically reduced 50% to 75% with proper application of Sil -Free™ 1020.

This virtually "no - bleed", high - performance compound will not dry out, harden, melt, or run, even after long - term continuous exposure to temperatures up to 200°C. Even in a vacuum atmosphere (10<sup>-5</sup> Torr, 24 hours@100°C), Sil - Free™ 1020 exhibits virtually "no bleed" or evaporation.

» [MSDS Safety Sheet for Sil -Free in PDF format](#) 104K

Color	White
Thermal Conductivity	0.79 W/(m ·°C)
Operating Temperature Range	-40°C to 200°C
Volume Resistivity	2.3 x 10 <sup>-12</sup> Ohm ·cm
Weight	47.5 grams
Dielectric Strength	225 Volts/mil
Consistency	Paste
Bleed	0.09 max
Specific Gravity	2.8
Shelf Life	5 years unopened

(1) It is recommended that the containers be turned over every 6 months to minimize settling for ease of mixing.

Sil- Free™ Resistance Calculator

Enter the area of the device that will contact the heat sink:	<input type="text"/> mm <sup>2</sup>
Enter the grease thickness:	<input type="text"/> mm
	<input type="button" value="Calculate"/>
Interface Resistance =	<input type="text"/>

Formula

$$\frac{\text{interface resistance=}}{\text{interface thickness (mm) * 1000}} \\ \text{thermal conductivity (W/m-K) * contact area (mm}^2\text{)}$$

Ordering Information

Part Number	RoHS	PCN	Package	Size
101700F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Syringe	43 grams (1.5 Oz.)
101800F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Tube	57 grams (2.0 Oz.)
102000F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Tube	143 grams (5.0 Oz.)
102100F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Jar	457 grams (16.0 Oz.)

Ther - O- Link

Ther - O- Link is a silicone - based thermal compound that cost effectively enhances the heat transfer between a semiconductor case and a heat sink. Easy to apply, Ther - O- Link substantially reduces dry interface thermal resistance, while providing long life under a variety of conditions.

» [MSDS Safety Sheet for Ther -O-Link in PDF format](#) 104K

Color	White
Thermal Conductivity	0.73 W/(m ·K)
Operating Temperature Range	-40°C to 200°C
Volume Resistivity	1.0 x 10 <sup>-15</sup> Ohm ·cm
Dielectric Strength	250 Volts/mil
Consistency	Paste
Bleed	0.6 max
Specific Gravity	2.8
Shelf Life	2 years from DOM <sup>1</sup>

(1) Stated shelf life is from date of manufacture. To allow for inventory cycle, product shipped from Aavid will have less than 24 months remaining shelf life. Aavid guarantees a minimum of 3 months remaining shelf life. Please adjust order quantity so all product will be consumed within 3 months of date of shipment. It is recommended that the containers be turned over every 6 months to minimize settling for ease of mixing.

Ther - O- Link Resistance Calculator

Enter the area of the device that will contact the heat sink:	<input type="text"/> mm <sup>2</sup>
Enter the grease thickness:	<input type="text"/> mm
	<input type="button" value="Calculate"/>
Interface Resistance =	<input type="text"/>

Formula

$$\frac{\text{interface resistance=}}{\text{interface thickness (mm) * 1000}} \\ \text{thermal conductivity (W/m-K) * contact area (mm}^2\text{)}$$

Ordering Information

Part Number	RoHS	PCN	Package	Size
100000F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Ampule	1g.
100100F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Syringe	35.7 grams (1.25 Oz.)
100200F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Tube	57 grams (2.0 Oz.)
100500F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Tube	143 grams (5.0 Oz.)
100800F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Tube	228.6 grams (8.0Oz.)
101600F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Can	.45 kg (1 lb)
108000F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Can	2.27 kg (5 lb)
132000F00000G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	Can	9.07 kg (20 lb)

Ultrastick

Part Number: 100300F00000G



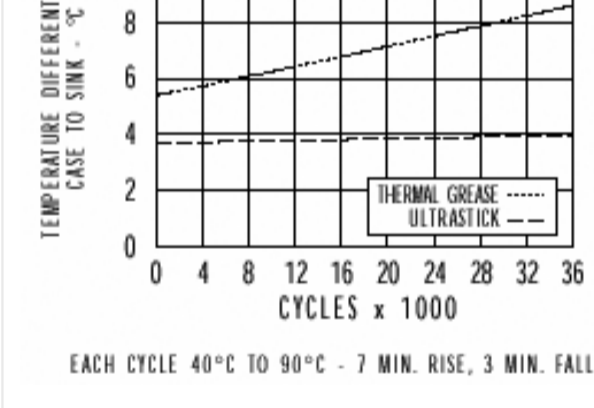
Aavid's Ultrastick is a unique phase - change thermal interface material that surpasses grease in thermal performance and long - term stability. This solid, silicone - free, paraffin - based thermal compound changes phase at 60°C, with a concurrent volumetric expansion that fills gaps between the mating surfaces. Ultrastick comes in a convenient applicator bar, allowing for neat, fast application to both heat sink and component surfaces. One cost - effective application leaves a thin, film - like deposit, providing excellent heat transfer and low interface thermal resistance.



» [MSDS Safety Sheet for Ultrastick in PDF format](#) 684K

» [Application Instructions for Ultrastick](#)

» [Download PDF Datasheet](#)



Temperature	200°
Volume Resistivity	1.0 X 1.0 <sup>-15</sup> Ohm ·cm
Dielectric Strength	250 volts/mil
Consistency	Paste
Bleed	0.6 max
Specific Gravity	0.28
Color	Opaque White
Operating Temperature Range	-40°C to 200°C
Thermal Impedance	0.03°C ·in <sup>2</sup> /W @ 20 psi 0.02°C ·in <sup>2</sup> /W @ 100 psi
Shelf Life	Indefinite

Thermalcote

Thermalcote™ is a superior thermal joint compound of thermally - loaded silicone - based grease for use with - metal sinks. It improves the transfer of thermal energy across the metal -to - metal interfaces between the transistor or rectifier case and the heat sink.

Thermalcote conducts heat approximately 15 times better than air and more than 4 times better than unloaded silicone grease. It is non - toxic, extremely stable, and neither cures nor runs from -40° to 204°C ( -40°F to 399°F).

» [MSDS Safety Sheet for Thermalcote in PDF format](#) 41K

Thermalcote Resistance Calculator

Enter the area of the device that will contact the heat sink:	<input type="text"/> mm <sup>2</sup>
Enter the grease thickness:	<input type="text"/> mm
	<input type="button" value="Calculate"/>
Interface Resistance =	<input type="text"/>

Formula

$$\frac{\text{interface resistance=}}{\text{interface thickness (mm) * 1000}} \\ \text{thermal conductivity (W/m-K) * contact area (mm}^2\text{)}$$

Color	Opaque White
Operating Temperature Range	-40°C to 204°C ( -40°F to 399°F).
Thermal Conductivity	0.765Wm <sup>-1</sup> °C <sup>-1</sup> (0.442 Btu/hr ft °F)
Dialectic strength 1.27 mm gap(0.050" gap)	11.8 x 10 <sup>-3</sup> volts/mm (300volts/mil)
Cleaning solvent	Mineral Spirits or Turpentine
Specific gravity	1.6
Evaporation, 24 hours @200°C (392°F), wt%	1
Shelf Life	Indefinite <sup>1</sup> (unopened) One Year (opened)

(1) It is recommended that the containers be turned over every 6 months to minimize settling for ease of mixing.

Ordering Information

Part No.	RoHS	PCN	Net Weight
249	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	28 grams (1 oz) tube
250G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	57 grams (2 oz) tube
251G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	.45Kg. (1 lb) can
252G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	2.27Kg. (5 lbs) can
253G	<a href="#">RoHS ✓ Compliant</a>	<a href="#">Product Change Notice</a>	4.54Kg. (10 lbs) can

Thermalcote™II (discontinued)

Thermalcote™II (349G,350G,351G has been discontinued

Aavid Thermalloy can no longer supply Thermalcote™II product.  
Please see our Sil - Free™ line of product instead.

Part No.	PCN
349G No longer available	<a href="#">Product Change Notice</a>
350G No longer available	<a href="#">Product Change Notice</a>
351G No longer available	<a href="#">Product Change Notice</a>