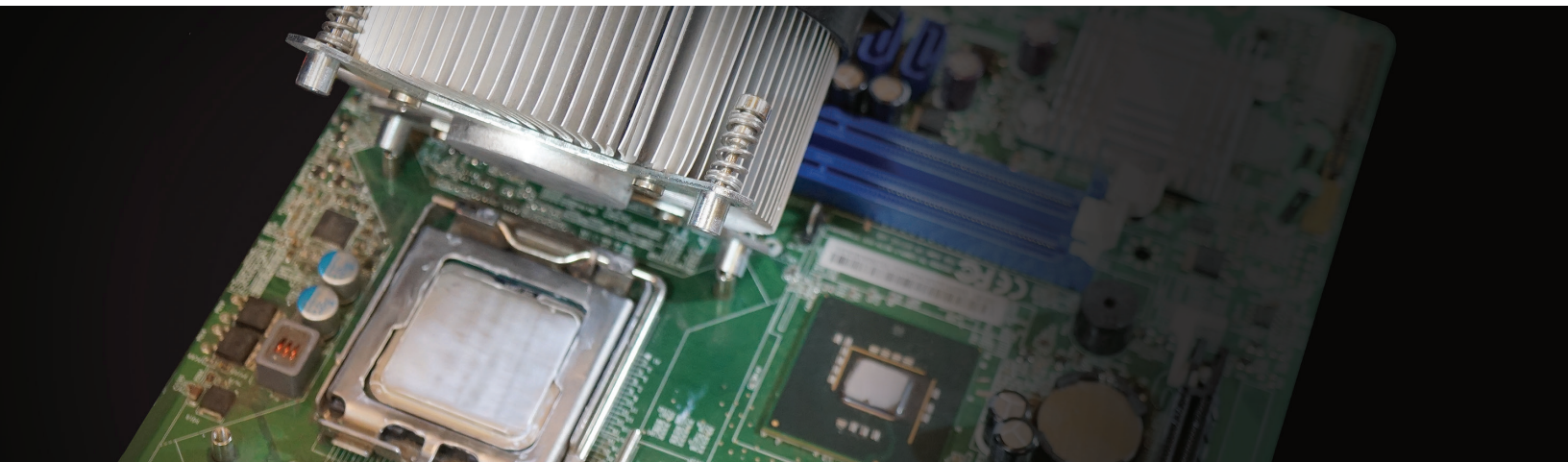


Thermal Greases



Improves heat flow between surfaces

Features and Benefits:

- High thermal conductivity
- Electrically insulating
- Non-capacitive
- Non-curing
- Bleed resistant
- Thin bond lines
- High reliability
- Prevents corrosion

Applications:

- Maximizing heat transfer by eliminating air gaps between the interface area of heat sinks and heat sources
- Improves heat transfer between heat sinks and CPU's, GPU's, flip chips, semiconductors, transistors, LED's, fans, and other heat generating electronic components

We offer a selection of three thermal greases:

8616 Super Thermal Grease II

Extremely thermally conductive, designed for applications where maximum heat flow is required

- Thermal Conductivity: 1.8 W/(m·K)
- Operating Temperature Range: -68 - +165°C
- Silicone Free

8617 Super Thermal Grease III – Zinc Oxide Free

Zinc oxide free, but still provides high thermal conductivity and reliable performance

- Thermal Conductivity: 1.0 W/(m·K)
- Operating Temperature Range: -68 - +165°C
- Silicone Free
- Ships non-regulated in all sizes

860 Silicone Heat Transfer Compound

Provides good thermal conductivity across a wide operating temperature range

- Thermal Conductivity: 0.66 W/(m·K)
- Operating Temperature Range: -68 - +200°C

Thermal Greases Comparison Chart

Cat. Number	860	8616	8617
Conductive Filler	Zinc oxide, silica	Aluminum oxide, zinc oxide	Aluminum oxide
Base Material	Silicone oil	Synthetic oil	Synthetic oil
Shelf Life	5 yr	5 yr	5 yr
Physical Properties			
Color	White	White	White
Odor	Odorless	Odorless	Odorless
Density @25 °C	2.40 g/mL	2.69 g/mL	1.96 g/mL
Viscosity	Thixotropic paste	Thixotropic paste	Thixotropic paste
Evaporation Loss ^{a)}	0.1%	1.2%	2.3%
Oil Separation ^{b)}	0.7%	0.02%	1.0%
Dropping Point	>260 °C	>300 °C	>308 °C
Water Washout @38 °C	0.1%	0.9%	1.5%
Worked Penetration ^{c)}	303	287	343
Oil Viscosity Index ^{d)}	N/A	>110 °C	>110 °C
Lubrication	No	No	No
Electrical Properties			
Volume Resistivity	$1.5 \times 10^{15} \Omega \cdot \text{cm}$	$1.8 \times 10^{11} \Omega \cdot \text{cm}$	$9.9 \times 10^9 \Omega \cdot \text{cm}$
Volume Conductivity	$6.7 \times 10^{-16} \text{ S/cm}$	$5.6 \times 10^{-12} \text{ S/cm}$	$1.0 \times 10^{-10} \text{ S/cm}$
Dielectric Strength	400 V/mil	330 V/mil	450 V/mil
Breakdown Voltage	N/A	16 600 V	4 500 V
Dielectric Constant @1 000 cps	3.81	6.77	6.07
Dielectric Factor @1 000 cps	0.003	0.01	0.08
Thermal Properties			
Thermal Conductivity @25 °C	0.66 W/(m·K)	1.78 W/(m·K)	1.0 W/(m·K)
Contact Thermal Resistance @25 °C	$0.57 \times 10^{-3} (\text{m}^2\text{K})/\text{W}$	$0.24 \times 10^{-3} (\text{m}^2\text{K})/\text{W}$	$0.71 \times 10^{-3} (\text{m}^2\text{K})/\text{W}$
Constant Service Temperature	-40 to 200 °C	-68 to 165 °C	-68 to 165 °C

a) Evaporation loss tested for 22 hours at 165 °C [329 °F]. b) Oil separation tested for 30 hours at 165 °C [329 °F]. c) 60 strokes

d) High oil viscosity index of over 100 indicates small oil viscosity changes with temperature

Available Packaging



**Tub of 100
4 g Pouches**
860-4G



3 mL Syringe
8616-3ML



25 mL Jar
860-60G
8616-25ML



85 mL Tube
860-150G
8616-85ML
8617-85ML



1 P Jar
860-1P
8616-1P
8617-1P



1 G Pail
8616-1G
8617-1G