

**THERMALLY-CONDUCTIVE HEAT-SINK COMPOUND**

*Technical Product Bulletin*

**PRODUCT DESCRIPTION:**

AA-GREASE 04 is an opaque white heat sink grease compound, which is applied to the base and mounting studs of transistor and diodes to provide a positive heat sink seal, this facilitates heat transfer away from electrical/electronic components and into heat sinks, thereby increasing the overall efficiency and performance of the device.

AA-GREASE 04 is silicone material, heavily filled with efficient heat conductive zinc oxide and a binding agent, this combination promotes high thermal conductivity, high temperature stability, and the lowest amount of bleed and evaporation.

AA-GREASE 04 thermal compound resists changes in consistency temperatures up to 180°C; function as heat transfer media, durable dielectric insulation, barrier against environmental contaminants and as a stress-relieving shock and vibration absorber over a wide temperature and humidity range.

AA-GREASE 04 thermal paste is resistant to ozone and ultraviolet degradation and has good chemical and solvent stability, good interference between the heat producing device and the heat transfer media, and low surface tension that enables them to wet most surfaces. AA-GREASE 04 will not harden, dry, or melt after 1200 hours @ 205°C.

**ELECTRICAL PROPERTIES:**

Dielectric Strength, volts/mil (ASTM D 150)	390
Dielectric Constant @ 100Hz (ASTM D150)	4.40
Dissipation Factor @ 100Hz (ASTM D150)	0.0021
Volume Resistivity, ohm-cm (ASTM D257)	2.9x10 <sup>14</sup>

**THERMAL PROPERTIES:**

Thermal Conductivity W/m-K	0.88
Operating Temperature Range, °C	-60 to 205
Thermal Resistance °C-In <sup>2</sup> /W	0.05

**LIMITATIONS:**

AA-GREASE 04 is neither tested nor represented as suitable for medical or pharmaceutical use.

**CLEAN UP AND DISPOSAL:**

AA-GREASE 04 can be removed by using solvents such as mineral spirit, heptane, or isopropyl alcohol. Dispose of in accordance with local, state and federal regulations for hazardous waste.

**TYPICAL PROPERTIES:**

Color	White
Base Fluid	Dimethyl Polysiloxane
Filler	Zinc oxide
Specific Gravity, 25°C, gm/cc	2.45
Viscosity	Paste
Press Flow @ 42.5 PSI, 25°C sec	13
Penetration (Worked), mm	285 <sup>1</sup> /10
Evaporation 24 hrs @ 25°C, %	0.0
Evaporation 24 hrs @ 200°C by weight,%	0.5
Bleed 24 Hours,%	0.6
Shelf life	6 Months

**STORAGE HANDLING & SHELF LIFE:**

AA-GREASE 04 has a shelf life of 5 years at room temperature (76°F) in an unopened container, settlings may occur during long term storage, it is recommended to re-mix the filler by hand or mechanical mixing. Keep container tightly closed store in cool area away from ignition sources and oxidizers, no special precautions need to be taken if product is handled according to directions. Shelf AA-GREASE 04 is neither tested nor represented as suitable for medical or pharmaceutical use.

**FEATURES AND BENEFITS:**

- Non-Sag or flowing.
- Non-Hazardous. Polymerization.
- Non-Toxic.
- Non-Corrosive.
- Reusable.
- Easily removed.
- Non-Flammable.
- Easy to apply via dispensing or screen printing.
- Low surface tension that enables it to wet most surfaces, which can lower the thermal contact resistance between the substrate and material.

**USAGE INSTRUCTIONS:**

For industrial use only Read MSDS carefully prior to use.

**Atom Adhesives**

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## **POTENTIAL USES:**

- Effective thermal coupler for any heat sink device, CPU to heat sink.
- Integrated Circuit.
- Automotive temperature-sensing devices.
- Temperature sensors.
- Applied to the base and mounting studs of transistor, diodes and silicone controlled rectifiers.
- Power transistors.
- Diodes, semiconductors.
- Thermal Joints.
- For any device where efficient cooling is required.
- Potting.
- TEC Modules.
- Hardware.
- Telecommunications.
- Right product for thermal management.
- High-voltage corona suppressant in connectors for fly back transferors located in TV sets.

## **AVAILABILITY:**

This epoxy can be supplied in many different packages.

## **APPLICATION METHODS:**

Automated or manual dispensing

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