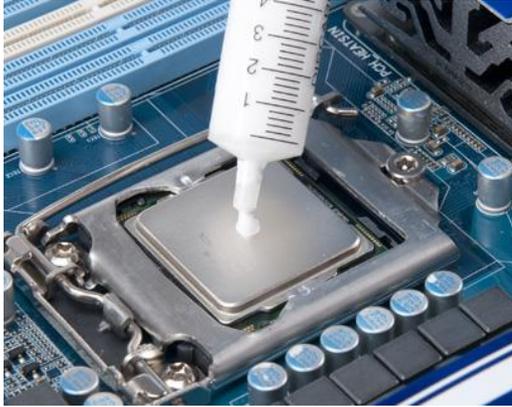




TECHNICAL PRODUCT BULLETIN



GENERAL DESCRIPTION

ALFA GR-194 FDA is an opaque white heat sink, food grade grease compound; this Product is formulated with FDA approved ingredients in compliance with CFR. Title paragraph 178.3570 of FDA guideline.

ALFA GR-194 FDA is applied in many industrial applications.

ALFA GR-194 FDA is grease like 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.

ALFA GR-194 FDA 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.

ALFA GR-194 FDA 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. ALFA GR-194 FDA will not harden, dry, or melt after 1200 hours @ 205°C.

- **Food Grade Heat Sink Compound**
- **Thermally Conductive Grease**
- **Meets FDA 21 CFR 175.300 For Use as Lubricant For Incidental Contact With Food.**

TYPICAL PROPERTIES AND CHEMICAL CHARACTERISTICS

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	11 - 13
Penetration (Worked), mm	285 ¹ / ₁₀
Evaporation 24 hrs @25°C, %	0.0
Evaporation @ 200°C 24H by weight,%	0.5
Bleed 24 Hours,%	0.6
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 ¹⁴
Thermal Properties	
Thermal Conductivity W/m-K	0.88
Operating Temperature Range, °C	-60 to 205
Thermal Resistance °C-In ² /W	0.05



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POTENTIAL USES

Food Applications:

- O-ring, Gasket, and Valve lubricants
- Any electronic device for heat transfer which is located in and around food processing areas.
- Insulates against moisture and extreme weather condition
- For food processing, food packaging, canning and bottling equipment
- For any device where efficient cooling is required

Industrial Applications:

- Thermal Coupler for any heat sink device
- CPU to heat sink
- Temperature sensors
- Applied to the base and mounting studs of transistor, diodes and silicone controlled rectifiers
- Power transistors, Diodes, Semiconductors
- Potting
- Telecommunications

STORAGE HANDLING & SHELF LIFE

GR-194 FDA 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 life is indicated on the product label, any special storage and handling instructions will be printed on the product container label.

FEATURES AND BENEFITS

- Food Grade Grease
- Non-Sag or flowing
- Non-Hazardous polymerization
- Non-Toxic
- Non-Corrosive
- Reworkable
- 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.

APPLICATION METHODS

Automated or manual dispensing

USAGE INSTRUCTIONS

For industrial use only Read MSDS carefully prior to use.

ENVIRONMENTAL IMPACT DATA

ODP	None	VOC	None
HCFC	None	HFC	None

The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made. In every case we urge and recommend that purchasers before using any product in full scale production make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purposes under their own operation conditions. No representative of ours has any authority to waive or change the foregoing provisions but, subject to such provisions, our engineers are available to assist purchasers in adapting our products to their needs and to the circumstances prevailing in their business. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention governed by any patent, without the authority from the owner of this patent. We also expect purchasers to use our products in accordance with the guiding principles of the Chemical Manufacturers Association's Responsible Care® program.



TECHNICAL PRODUCT BULLETIN

CLEAN UP AND DISPOSAL

GR-194 FDA 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.

AVAILABILITY

Size	Packaging
1.5 gm	Syringe
2.5 oz.	Tube
5 oz./142 gm	Syringe
8 oz.	Jar
4.5 Lbs.	Can
20 Lbs.	Plastic Can
60 Lbs.	Pail

32 Mechanic Avenue Unit 99 • Woonsocket RI 02895 • Tel. 401-765-0503 • Fax 401-765-0508 •
www.alfaadhesives.com • E-mail: info@ alfaadhesives.com