

TECHNICAL DATA SHEET



Product Description

AOS Non-Silicone XT-4 Heat Sink Compound is recommended for *high-temperature heat transfer* in silicone sensitive applications. Non-Silicone XT-4 is a non-silicone-based thermally conductive gray paste/grease, compounded with 100% synthetic base stocks. This product offers very high thermal conductivity with virtually no bleed or evaporation over a wide operating temperature range.

The Non-Silicone Advantage

Silicone-based compounds have an undesirable tendency to physically migrate and contaminate components nearby. This interferes with circuit operation long after hardware installation to cause unexpected, untimely and often inaccessible problems. The AOS Heat Sink Compound's *no creep* feature extends circuit life by protecting components longer and by eliminating premature failure of adjacent components caused by migrating silicone base fluid.

Product Features & Benefits

Stable at continuous operating temperatures **up to 250°C** with the same unique advantages of our standard non-silicone heat sink compound. Nonflammable, oxidation resistant, and does not promote rust or corrosion. No bleed; excellent thermal resistance and high thermal conductivity; efficient thermal coupler; effective and positive heat sink sealers and heat transfer agent. 5-year minimum shelf life. Compatible with rubber and plastic.

Major Applications

While suitable for traditional applications requiring a non-silicone thermal grease, Non-Silicone XT-4 is especially appropriate when there is an intentional heat source, such as a heating element, calrod, etc., that requires continuous operation at temperatures exceeding 200°C.

Methods of Application

By hand brushing or wiping. Also, automatic dispensing methods save labor and material.

Typical Properties

Property	Value	Test Method
Specific Gravity, @ 25°C	2.8	ASTM D-70
Bleed, @ 200°C, 24 Hrs., %/Wt	0.2 %	FTM-321 MODIFIED
Viscosity, 1 sec ⁻¹ , 25°C/50°C	1,000,000/640,000 cP	ARES G-2 RHEOMETER
Evaporation, @ 200°C, 24 Hrs., %/Wt.	0.5 %	FTM-321 MODIFIED
Thermal Conductivity, @ 50°C	5.0 W/m-K	ASTMD 5470-06
Thermal Resistance, @ 50°C	0.0800 °C/W	Oracle TTV Model 270-7806-01
Electrical Properties		
Dielectric strength, 0.05" gap, V/mil	353	ASTM D-149
Dielectric constant, 25°C @ 1,000 Hz	4.86	ASTM D-150
Dissipation factor, 25°C @ 1,000 Hz	0.0019	ASTM D-150
Volume Resistivity, ohm-cm	7.28 x 10 ¹³	ASTM D-257
Operating Temperature Range	-40°C to 260°C	
Flow Rate	1 to 2 g/min	AOS Method #1
Appearance	Gray Paste	
Shelf Life	5 Years	