



AOS Thermal Compounds

AOS NON-SILICONE HTC

Product Code: 53053-1

TECHNICAL DATA SHEET



Product Description

AOS Non-Silicone HTC (High Thermal Conductivity) Heat Sink Compound is a synthetic-based thermal grease used to insure quick, efficient heat transfer and dissipation. This product is unique in that it cures in air (usually within 1 hour) to a non-flowing, tacky solid. The compound in its cured state still exhibits excellent heat transfer. 52053-1 was developed by AOS in response for a product that will flow initially and can be pumped which then increases in viscosity while providing increased thermal transfer efficiency. The material appears compatible with most electronic materials. The material should not be left exposed to the atmosphere until used.

Product Features & Benefits

- **AOS Non-Silicone HTC** retains all the unique advantages of AOS Heat Sink Compound (Product Code: 52038) with the added benefit of a thermal cure. The non-silicone, "no creep" feature extends OEM service life. It is compatible with most metal and plastic components. The product does not contribute to solder bath contamination, and has very low bleed and evaporation. It has a 6 month minimum shelf life in its unopened container. Additional benefits include excellent thermal conductivity and thermal resistance over a wide operating temperature range.
- **AOS Non-Silicone HTC** is cost effective. The product has considerably greater thermal conductivity of our standard non-silicone thermal grease, but remains comparable in cost.
- As with our entire line of AOS Heat Sink Compounds, our technical staff can modify **AOS Non-Silicone HTC** to meet your exacting specifications.

Typical Properties

Property	Value	Test Method
Specific Gravity, @ 25°C	2.5	ASTM D-70
Bleed, @ 200°C, 24 Hrs., %/Wt	0.1	FTM-321 MODIFIED
Evaporation, @ 200°C, 24 Hrs., %/Wt.	0.50	FTM-321 MODIFIED
Thermal Conductivity, @ 50°C W/m.°K	1.4	ASTM 5470 – 95 (modified)
Electrical Properties		
Dielectric Strength, 0.05" gap, V/mil	318	ASTM D-149
Dielectric Strength after exposure to 85°C/85% R.H. for 48 hours	212	
Dielectric Constant, 25°C @ 1,000 Hz	5.0	ASTM D-150
Dissipation Factor, 25°C @ 1,000 Hz	0.0027	ASTM D-150
Volume Resistivity, ohm-cm	2.15×10^{15}	ASTM D-257
Operating Temperature Range	-40°C to 200°C	
Flow Rate (50psi/min. @ 77 ± 2°F) Grams/Min.	3.1	AOS METHOD # 1
Appearance	Smooth, Low viscosity, Gray Paste	

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