AOS Water Cleanable HTC 51

Product Code: 52051

TECHNICAL DATA SHEET

Product Description

AOS 52051 ***Non-Silicone*** Water Cleanable **HTC 90** (High Thermal Conductivity) ***thermal grease*** was developed by AOS to avoid the use of solvents and/or labor intensive clean up of messy heat sink compounds. AOS 52051 will easily clean off hands or clothing with a damp cloth or by running under water. Metal and plastic components and tools may only require a dry cloth to remove the compound.

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

AOS 52051 is non-silicone based, non-reactive, and non-abrasive with a soft, grease-like consistency. The flow is similar to our standard non-silicone based product, 52022. It has excellent dielectric properties and a thermal conductivity 2 times greater than our standard water cleanable products. AOS 52051 will not phase separate and has no volatile content or special storage requirements.

Typical Properties

Property	Value	Test Method
Specific Gravity, @ 25°C	2.6	ASTM D-70
Bleed, @ 200°C, 24 Hrs., %/Wt	0.0 %	FTM-321 MODIFIED
Viscosity, 1 sec^{-1} , 25°C	800,000 cP	ARES G-2 RHEOMETER
Evaporation, @ 200°C, 24 Hrs., %/Wt.	1.0 %	FTM-321 MODIFIED
Thermal Conductivity, @ 36°C	2.5 W/m-K	ASTMD 5470-06
Thermal Resistance, @ 50°C	N/A	Oracle TTV Model 270-7806-01
Anticipated Minimum Bond Line (mil) Based on filler dimensions	< 1	
Electrical Properties		
Dielectric strength, 0.05" gap, V/mil	265	ASTM D-149
Dielectric constant, 25°C @ 1,000 Hz	5.02	ASTM D-150
Dissipation factor, 25°C @ 1,000 Hz	0.0022	ASTM D-150
Volume Resistivity, ohm-cm	2.0 X 10^{15}	ASTM D-257
Operating Temperature Range	-40°C to 160°C	
Flow Rate	5 to 15 g/min	AOS Method
Appearance	Dark Gray Paste	
Shelf Life	2 Years	

*Customers are responsible for testing AOS Thermal Compounds materials for their proposed use. Any information furnished by AOS Thermal Compounds and its agents is believed to be reliable, but AOS Thermal Compounds does not guarantee the results to be accurate and makes no warranties as to the fitness, merchantability, or suitability of any AOS material or product for any specific or general use and shall not be held liable for incidental or consequential damages of any kind. (040206)

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