

TECHNICAL DATA SHEET

Product Description

AOS 340 WC (Water Cleanable) 52055 is a non-silicone based thermal grease developed to replace all general purpose silicone and non-silicone thermal greases. 52055 has twice the conductivity of standard thermal greases, but more importantly, it will spread into a very thin bond line for extremely low thermal resistance. 52055 also resists pump-out, more than typical thermal greases, and despite the increased reliability and durability, it cleans up with only water.

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 340 WC is non-silicone based, non-reactive, and non-abrasive with a soft, grease-like consistency, thixotropic behavior and excellent dielectric properties. The thermal performance of 52055 is better than standard heat sink compounds and even most premium thermal greases on the market.

Major Applications

AOS 340 WC is designed to be applied where thermal coupling is required and where a device may need to be removed from the heat sink later. Major applications include power transistors, diodes, and silicone control rectifiers. It is also an effective thermal joint compound for any device where efficient cooling is desired.

Typical Properties

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
Specific Gravity , @ 25°C	2.6~3.0	ASTM D70
Bleed , @ 200°C, 24 Hrs., %/Wt	0.0	ASTM D6184-17
Viscosity , 1 sec ⁻¹ , cPs, 25°C	620,000	Rheometer
Evaporation , @ 150°C, 24 Hrs., %/Wt.	<1.0	
Thermal Conductivity , @ 25°C, W/m-K	1.5	ASTM D5470-17
Electrical Properties		
Dielectric strength, 0.05" gap, V/mil	265	ASTM D149
Dielectric constant, 25°C @ 1,000 Hz	5.02	ASTM D150
Dissipation factor, 25°C @ 1,000 Hz	0.0022	ASTM D150
Volume Resistivity, ohm-cm	2.15 x 10 ¹⁵	ASTM D257
Operating Temperature Range , °C	-40 to 180	
Flow Rate , g/min	4.5 to 6.5	AOS Method*
Appearance	Smooth, Off-White paste	
Shelf Life	2 Years	

*30cc Syringe, 0.08" orifice at 50 PSI, at 25°C

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)