ADVANCED THERMOELECTRIC

Technical Data Sheet

AOS 52022

Thermal Grease

UNIT CODE	DESCRIPTION
AOS 52022	**AOS Non-Silicone Heat Sink Compound**

Features at a Glance:

No creep extends OEM service life; compatible with metal and plastic components; no solder bath contamination; very low bleed and evaporation; 5 year minimum shelf life; excellent thermal conductivity and thermal resistance; wide operation range; meets KS 21343 spec and

Military Specification MIL-C-47113B; will not dry, harden or melt in normal use; easy to apply and clean-up; safe to use.

AOS Non-Silicone Heat Sink Compound was created to solve the problems of contamination and migration associated with silicone-based products. The compound is a unique synthetic-based thermal grease used to insure quick, efficient heat transfer and dissipation.

The primary advantage of this non-silicone product is long-term material stability. This means that the compound stays put and on the job over the full operable life of your hardware, exhibiting virtually no bleed or evaporation over a wide operating temperature range - even in a vacuum atmosphere (10^{-5} tor/mil, 24 hrs. @ 100°C). Compound will not leach, dry, harden, or melt in normal industrial use.

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. This product's no creep feature extends circuit life by protecting components longer and by eliminating premature failure of adjacent

Typical Properties:

Property	Value	Test Method
Consistency (Penetration)	250-350	ASTM D-217
Specific Gravity, @ 25°C	2.7	ASTM D-70
Bleed, @ 200°C, 24 Hrs., %/Wt	0.10	FTM-321 MODIFIED
Evaporation, @ 200°C, 24 Hrs., %/Wt.	0.60	FTM-321 MODIFIED
Thermal Conductivity, @ 36°C		
Cal/Sec. Cm.°C	16.7×10^{-4}	HOT WIRE METHOD
BTU.In/(Hr.Ft(sq).°F)	4.8	PER MIL-C-47113B
W/m.°K	0.70	
Electrical Properties:		
Dielectric strength, 0.05" gap, V/mil	305	ASTM D-149
Dielectric constant, 25°C @ 1,000 Hz	4.50	ASTM D-150
Dissipation factor, 25°C @ 1,000 Hz	0.0029	ASTM D-150
Volume Resistivity, ohm-cm	1.65×10^{14}	ASTM D-257
Operating Temperature Range	-40°C to 200°C	
Flow Rate, grams/min.	2 to 10	AOS Method
Appearance	Smooth, White Paste	

1 oz Syringe - Good for about 50 TECs

1-9 $9.75 10-99 $8.50 100+ $7.50

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PO Box 7091
Nashua, NH 03060 USA

Toll Free Order line
1 866-665-5434
international Inquiries (603) 888-2467
email: sales@electracool.com

rev 1/05