

EcoGreen Technologies (S) Pte Ltd

Silicon Thermal Compound

Part No: 54013



The Product

EGT *Silicone* Heat Sink Compound is a silicone-based thermal grease made from a silicone fluid thickness with metal oxide fillers. The product offers high thermal conductivity, virtually no no wide operating bleed or evaporation over temperature range. It will not harden, dry out or melt after 1,000hours at 200C.

Product Benefits and Features

Grease-like consistency; opaque white in color; zero bleed; very stable at elevated temperatures; excellent thermal resistance and high thermal conductivity; efficient thermal coupler; effective and positive heat sink sealers and heat transfer agent.

Typical Properties

<u>Property</u>	<u>#54013 Value</u>	<u>Test Method</u>
Consistency (Penetration, worked, 60x)	340	ASTM D-217
Specific Gravity , @ 25C	2.2	ASTM D-70
Bleed , @ 200C, 24 Hrs., %/Wt	0.5	FTM-321 Modified
Evaporation , @ 200C, 24 Hrs., %/Wt.	0.5	FTM-321 Modified
Thermal Conductivity , @ 36C		
Cal/Sec. Cm.C	17.5×10^{-4}	Hot Wire Method
BTU.In/(Hr.Ft ² .F)	5.1	Per MIL-C-47113B
W/m.K	0.73	
Electrical Properties		
Dielectric strength, 0.05" gap, V/mil	400	ASTM D-149
Dielectric constant, 25C @ 1,000 Hz	4.9	ASTM D-150
Dissipation factor, 25C @ 1,000 Hz	0.0011	ASTM D-150
Volume Resistivity, ohm-cm	1.96×10^{15}	ASTM D-257
Operating Temperature Range	-55C to 205C	
Flow Rate grams/min. @ 50PSI	18-20	AOS Method
Appearance	White Paste	

Standard Package:1oz(Springe), 2oz(Tube), 5oz(Tube), 1lb(Jar) & 2lb(Jar)

* More Silicone Thermal Compounds are available for various application. Kindly contact us at Tel: (65) 6853 3368, or email: ecogreentech@ecogreens.com.sg for more details.

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Non-Silicone Thermal Compound

Part No: 52022, 52027, 52031

The Product:

Silicone-based grease has the tendency to separate and migrate, potentially contaminating electronics packages. After several thermal cycles silicone compound can dry out, causing cracking and separation. As air gaps from components lose interface contact, resulting in a loss of thermal conduction.

EGT No-Silicone Compounds stay put and in place for the full operational life of your hardware. The Non-Silicone Thermal Compound is a unique synthetic base thermal grease used to ensure quick efficient heat transfer and dissipation.

Product Benefits and Features

The primary advantage of this non-silicone product is long-term material stability. The compound stays put with the job over the full operate life of your hardware, exhibiting virtually no bleed or evaporation over a wide temperature range- even in a vacuum atmosphere (10⁻⁴ torr/mil, 24 hrs. @ 100°C). Compound will not leach, dry, Harden, or melt in normal industrial use.

No creep extends OEM service life, compatible with metal and plastic components, no soldering bath contamination.

Typical Properties

Property	52022 Value	52025 Value	52031 Value	Test Method
Consistency (Penetration, worked, 60x)	250-350	370	250-350	ASTM D-217
Specific Gravity , @ 25C	2.7	2.8	2.6	ASTM D-70
Bleed , @ 200C, 24 Hrs., %/Wt	0.1	0.10	0.30	FTM-321 Modified
Evaporation , @ 200C, 24 Hrs., %/Wt.	0.1	0.50	0.60	FTM-321 Modified
Thermal Conductivity , @ 36C				
Cal/Sec. Cm.C	16.7x 10 ⁻⁴	40.3x 10 ⁻⁴	59.9x 10 ⁻⁴	Hot Wire Method
BTU.In/(Hr.Ft ² .F)	4.8	11.7	17.4	Per MIL-C-47113B
W/m.K	0.70	1.68	2.51	
Electrical Properties				
Dielectric strength, 0.05" gap, V/mil	305	302	351	ASTM D-149
Dielectric constant, 25C @ 1,000 Hz	4.50	4.50	4.92	ASTM D-150
Dissipation factor, 25C @ 1,000 Hz	0.0029	0.0029	0.0032	ASTM D-150
Volume Resistivity, ohm-cm	1.65 x 10 ¹⁴	1.65 x 10 ¹⁴	1.16 x 10 ¹⁴	ASTM D-257
Operating Temperature Range	-400C to 2000C	-400C to 2000C	-400C to 2000C	
Flow Rate grams/min. @ 50PSI	2 to 10	10 to 15	2 to 15	AOS Method
Appearance	Smooth, White Paste	Off-White Paste	Gray Paste	

Standard Package: 1oz (Springe), 2oz (Tube), 5oz (Tube), 1lb (Jar) & 2lb (Jar).

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