

TCGS-2.5 Thermal Conductive Grease Series

Features & Benefits

- Conformable
- Low hardness
- Electrically isolating
- Minimized interfacial resistance
- Superior Thermal Performance
- Tends to maintain formability

Applications

- CPU, GPU (Notebooks, Desktops, Servers)
- Custom ASICs Chips
- LED Applications
- Telecommunication Equipment
- Industrial Electronics

Introduction

TCLAD TCGS is a superior thermal interface material with Nano-dispersion technology to mix the silicon fluid and high-performance NANO powder, which can help the thermal dissipation of electronic components.

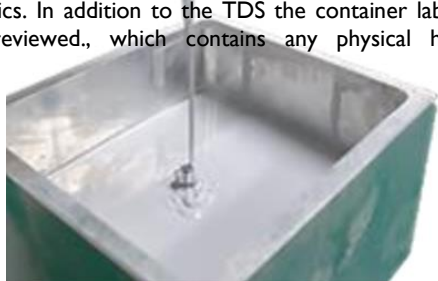
Typical properties of grease series products thermal compound is a silicone based thermal grease made from a silicone fluid with thermally conductive material and metal oxide fillers. The product offers high thermal conductivity, virtually no wide operating bleed or evaporation over temperature range.

How to use: Depending on storage time of the material from the date on manufacture, premixing prior to use may be required. Apply the mixed material on the desired surfaces. Once the surface is applied by pressure with a surface the air gaps could be removed as much as possible for better heat dissipation from the heat source.

Useable life and storage: TCGS products are best if stored in a cool and dry / non-humid environment, especially where it is not exposed to any sunlight. Containers that have been stored longer than two months should be remixed with a clean mixer and vacuum to prevent air entrapment. Whereas the cartridge containers should be flipped upside down every two weeks to prevent the particle fillers from settling to the bottom. The shelf life can be up to 6 months when properly stored.

Package Information: Typical package size, cartridges: 25cc, 333cc, Containers: 20L and 200L.

Precautions: Please carefully review the product data sheet of the material before use of the product in terms of the material characteristics. In addition to the TDS the container labels for safety must be reviewed., which contains any physical health hazard information.



Item	Condition	Unit	Value	Method	
General					
Color	Visual	-	Gray	Visual	
Continuous Use Temp	-	°C	-40 ~ 170	-	
Viscosity	25°C (1rpm, no spindle)	cps	650,000	ASTM D2196	
Density	25°C Gravimeter	g/cc	2.6	ASTM D792	
Electrical					
Flame Rating	Vertical Burn Test	-	V-0	Tested in accordance with UL 94	
Volume Resistivity	-	Ω-cm	> 1x10 ¹²	-	
Thermal					
Thermal Conductivity	-	W/m-K	2.5	ASTM D7984	
			10 psi		0.28
			20 psi		0.22
			40 psi		0.19
			90 psi		0.15
Thermal Resistance	°C-cm ² /W			ASTM D5470	
Durability					
Heating Stability (Thermal conductivity, Breakdown voltage)	150°C 500hr	%	< 10		
Cooling Stability (Thermal conductivity, Breakdown voltage)	-40°C, 500hr	%	< 10		
Thermos Hygrostat (Thermal conductivity, Breakdown voltage)	500hr (85°C, humidity 85%)	%	< 10		
Thermal Shock Test (Thermal conductivity, Breakdown voltage)	500 Cycles (-40°C ~ 152°C)	%	< 10		

