Thermal Gel

Product Technical Datasheet

Product Description

Thermal Gel of Jones is a silicone-based thermal gap filler, which is very soft and has good shape retention performance. The bond line variance can also be more easily controlled than traditional thermal pads.
Thermal Gel is designed to be used in which large gap tolerances are presented and low mechanical pressure onto delicate components are needed. It is an ideal gap filler for filling variable gaps between multiple components and a common heat sink. Thermal Gel has a composition which yields superior thermal performance and super compliance. This material transfers little to no pressure between components interfaces. Both single-part and 2-part Thermal Gel are availalbe.

Features and Benefits

- Electrically Isolating
- Low thermal resistance
- Soft ,compliant and transferring little to no pressure space between interfaces
- High Thermal Conductivity
- Easily dispensing
- Fully-cured and no oil leakage

Typical Applications

- Cooling components to chassis, frame, or other mating components
- Memory modules
- Home and small office network equipment
- Mass storage devices
- Automotive electronics
- Telecommunication hardware
- LED solid state lighting
- Power electronics
- Audio and video component
- IT infrastructure
- Radios
- LCD and PDP flat panel

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Preliminary Technical Data

Single-Part Thermal Gel

TYPICAL PROPERITIES		21-340	TEST METHOD
Physical	Color	Light Green	Visual
	Density (g/cc)	3.1	ASTM D792
	Flow Rate (g/min)	2.5	∮ 2.0mm syringe needle@ 90PSI
	Typical Minimum Bondline Thickness (mm)	0.1	Jones
Thermal	Thermal conductivity (W/m.k)	3.5	ASTM D5470
	Operation Temperature Range(°C)	-55~150	/
Electrical	Breakdown Voltage (KV/mm)	>5	ASTM D149
	Volume Resistance (ohm-cm)	3.3×10^14	ASTM D257
	Dielectric Constant@1M Hz	5.13	ASTM D150
Regulatory	Flammability Rating	V0	UL File E309281
	RoHS	Compliant	/
	Shelf life/months	18	/

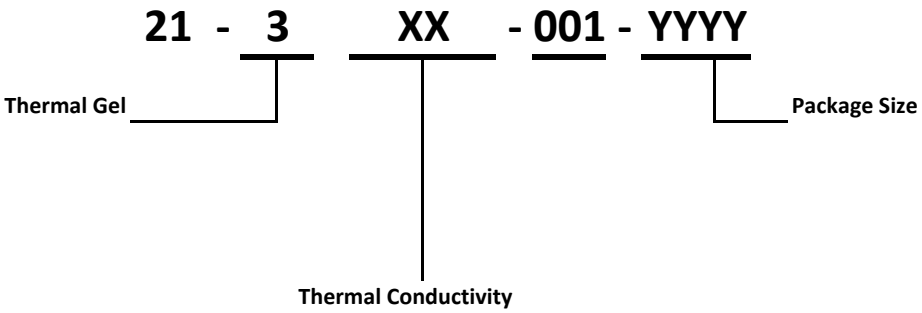
Note 1 Ramp up speed 500V/s, leakage current 0.5mA

Two-Part Thermal Gel

TYPICAL PROPERITIES		21-335	TEST METHOD
Physical	Color/ Part A	Blue	Visual
	Color/ Part B	White	Visual
	Viscosity as Mixed (cp)	200000	Brookfield Viscometer TF Spindle @ 20rpm
	Mix Ratio	1:1	-
	Density (g/cc)	2.9	ASTM D792
Properties as Cured	Color	Color/ Part A Blue Color/ Part B White After mixed Light Blue	Visual
	Hardness (shore 00)	40	ASTM D2240
Thermal as Cured	Thermal conductivity (W/m.k)	3.5	ASTM D5470
	Operation Temperature Range(°C)	-55~150	/
Electrical	Breakdown Voltage (KV/mm)*	>5	ASTM D149
	Volume Resistance (ohm-cm)	3.0×10^13	ASTM D257
	Dielectric Constant@1M Hz	5	ASTM D150
Cure Schedule	Pot Life @ 25 °C (min)	4	Time for Viscosity to Double at room temp
	Cure @ 25 °C (hrs)	12	Rheometer- Time to Reach 90% Cure
	Cure @ 100 °C (min)	20	Rheometer- Time to Reach 90% Cure

Note 1 Ramp up speed 500V/s, leakage current 0.5mA

Ordering Information



Part Number Examples
21-340-001-180M = Thermal Gel 21-340 in a 480 g (180cc) cartridge
21-340-001-300M = Thermal Gel 21-340 in a 800 g (300cc) cartridge
21-340-001-001G = Thermal Gel 21-340 packed in a 10kg (1 gallon) pail
21-340-001-005G = Thermal Gel 21-340 packed in a 40kg (5 gallon) pail
21-335-001-050M = Thermal Gel 21-335 in a 150 g (50cc) cartridge21-335-001-400M = Thermal Gel 21-335 in a 1.2 kg (400cc) cartridge

Contact Information

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