

Silicone-free Thermal-conductive Greases

Compared to conventional thermal conductive sheets, thermal conductive greases GA204 and GA690 can be applied in a much thinner layer and offer extremely low thermal resistance.

The outstanding handling properties make for ease of grease dispensation and coating onto substrates.

In addition, the use of non-silicone base oils eliminates problems such as contact faults caused by low-molecular siloxane.

MK-44 (phase-change grease) coating is performed by printing to form a solid sheet that does not become sticky at room temperature when the solvent is volatilized. This sheet softens when exposed to heat to ensure close adhesion to heat sources such as IC chips, realizing an impressive reduction in thermal resistance.

Characteristics

		GA204	GA690	MK-44
Appearance	-	White	Gray	Gray
Base Material	-	Ester Oil	Ester Oil	Hydrocarbon Resin
Viscosity	Pa·s	110	300	10-25
Thermal Resistance	°C/W	0.14	0.13	0.13
Thermal Conductivity (Hot-wire Method)	W/m·K	2.4	4.5	4.5
Operating Temperature Range	°C	-40-150	-40-150	-40-120

Thermal resistance measurement conditions: 10mm x 10mm samples measured by a thermal resistance measuring device manufactured by Polymatech, Heater calorific value: 25W

The MK-44 specification is subject to change without notice. Numerical values shown in the above table are actual measured values, not product standard values.

2-component Room-curable Thermal-conductive Greases

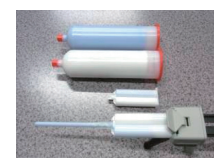
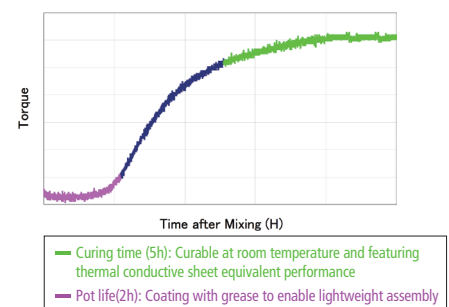
CGW-2 and CGW-3 are 2-component liquid silicone thermal-conductive greases curable at room temperature. Use of filling devices eliminates bothersome manual work required for affixing thermal-conductive sheets.

The curing time at room temperature is approximately 5 hours, and the grease softens during assembly, reducing stress on components such as PCBs, chips and cabinets.

The grease hardens after assembly, realizing high reliability even in high-temperature environments and does not pump-out.

Characteristics

		CGW-2	CGW-3
Appearance	-	Material A: Green Material B: White	Material A: Blue Material B: White
Base Material	-	Silicone	Silicone
Mixing Ratio	-	A:B = 1:1	A:B = 1:1
Viscosity	Pa·s	Material A: 380 Material B: 330 After mixing: 370	Material A: 490 Material B: 420 After mixing: 470
Thermal Conductivity (ASTM D5470)	W/m·K	2	3
Hardness	Shore OO	52	55
	JIS Type E	25	30
Operating Temperature Range	°C	-40~150	-40~150



Examples of delivery format: Syringe, pails