

Product Data

Silicone Thermally Conductive Compound TSK5303

TSK5303 is a silicone thermally conductive compound specially designed as a medium for heat radiative or thermally conductive use. The product provides excellent electrical properties, thermal conductivity, and is easy to apply. TSK5303 can also be effectively used at temperature as high as 300°C because of its excellent heat durability.

KEY FEATURES

- ◆ High temperature resistance
- ◆ Excellent thermal conductivity
- ◆ Excellent electrical properties
- ◆ Easy to use
- ◆ Low volatility

APPLICATIONS

- ◆ Heat transfer media for semi-conductor elements such as rectifiers, thyristors and integrated circuits
- ◆ Thermally connecting media between thermistors, thermo-couples, etc. and temperature measuring point
- ◆ Thermally conductive media between heat source and radiator of heating appliances
- ◆ Thermally conductive media between heat source and heat exchanger

TYPICAL PROPERTY DATA

PROPERTY		
Base oil	Methylphenyl silicone fluid	
Appearance	White, grease like	
Specific gravity (25°C)	2.34	
Worked penetration ^{*1}	330	
Bleed ^{*1} (200°C, 24h) %	2.8	
Evaporation (200°C, 24h) %	0.2	
Thermal conductivity W/(m·k) {cal/(cm·s·°C)}	0.84 {2.0×10 ⁻³ }	
Volume resistivity ^{*2} MΩ·m {Ω·cm}	1.5×10 ⁶ {1.5×10 ¹⁴ }	
Dielectric constant (60Hz)	5.0	
Dissipation factor (60Hz)	0.005	
Volatile siloxane (D ₃ -D ₁₀) ppm	15	
Heat resistance	150°C, 1000h	No surface hardening No change in appearance
	200°C, 100h	
	300°C, 24h	

*1: JIS K 2220

*2: MIL-S-8660B

HEAT RESISTANCE

A heat-aging test was conducted to compare the heat resistance of TSK5303, YG6111 and YG6240 at 200°C and 300°C. Worked penetration was measured after being left for 48hours at each temperature. Results of the test are given in the table below.

HEAT-AGING TEST RESULTS

(worked penetration)

CONDITION	TSK5303	YG6111	YG6240
Before aging	300	300	270
200°C, 48h	270	280	300
300°C, 48h	380	Gelation	Gelation

HANDLING AND SAFETY

- ◆ Wear eye protection and protective gloves as required while working the product.
- ◆ Maintain adequate ventilation in the work place at all times.

STORAGE

- ◆ Store in a cool and dry place out of direct sunlight.
- ◆ Keep out of the reach of children.

PACKAGING

- ◆ 1kg can available in case of 10
- ◆ 8kg can available

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