



Technical Data Sheet

ACS Material Thermal Conductive Gel

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The two-component thermal conductive gel sealing material with a thermal conductivity ranging from 2.0 to 8.0 W/m*K is suitable for applications with low assembly stress and can be applied using automated dispensing systems. The material is mixed thoroughly through a helical mixing tube and can cure at room temperature or at high temperatures. The surface tension of the gel is extremely low (almost negligible), allowing it to conform well to the interface of the materials and resulting in low thermal resistance. Once cured, its performance is equivalent to that of thermal conductive pads, providing excellent thermal conductivity, insulation, and shock absorption. Additionally, the thermal conductive gel is made of an organic silicon formulation that is non-toxic, odorless, non-corrosive, and compliant with RoHS directives and environmental requirements.



1. Features

- Good insulation and high/low temperature resistance.
- Flame retardant rating of UL94 V0
- Good workability and flexibility

2. Characterizations

Before Curing					
Type	A		B		Testing Standard
	Tube 1	Tube 2	Tube 1	Tube 2	-
Color	Pink/Optional	White	Yellow/Optional	White	-
Viscosity @25°C 14#rotor	20*10 ⁴ cps	15*10 ⁴ cps	90*10 ⁴ cps	85*10 ⁴ cps	ASTM D445
Density	2.0 g/cc	2.0 g/cc	3.5 g/cc	3.5 g/cc	ASTM D792
After Curing					
Thermal Conductive	2.0 W/m*K		8.0 W/m*K		IS022007-2
Size	50ml		400ml		-
Density	2.0 g/cc		3.5 g/cc		ASTM D792
Hardness	60 Shore00		60 Shore00		ASTM D2240
Flame Retardant Rating	V0		V0		UL94
Surface Dry Time @25°C	90 min		90 min		Manual
Curing Time @ 25°C	24 h		24 h		Hardness Test
Tensile Strength	0.1 MPa		0.1 MPa		ASTM D412
Elongation at Break	30%		30%		ASTM D412
Breakdown Voltage	8 kV/mm		8 kV/mm		ASTM D149
Volume Resistivity	>10 ¹² Ohm*cm		>10 ¹² Ohm*cm		ASTM D257
D₄-D₁₀ Content	<100 ppm		<100 ppm		GC
Recommended using temperature range	-40 ~ +150 °C		-40 ~ +150 °C		-



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