



INTERNATIONAL

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KYI-H500 series (Thermal Gap Filler)

DATA SHEET



- Product picture -

FEATURES:

- Soft, excellent compression performance
- Low thermal resistance
- Being recognized as UL94 V-0
- Viscous surface
- Being able to work under low pressure
- Excellent insulation performance and thermal resistance

APPLICATIONS:

- Between chip and heat-dissipation modules
- Optoelectronic Industry
- Netcom products
- New energy battery and vehicles industry
- Household appliances
- Wearable equipments

The series of products are accord with standards of RoHS and HALOGEN.

STORAGE CONDITIONS: Storage in the darkness

STORAGE TEMPERATURE: $\leq 30^{\circ}\text{C}$

STORAGE HUMIDITY: $\leq 70\%$

The height of the stacking should not be more than 7 layers and the total height should not be more than 1m.

SHELF LIFE: Two years at storage conditions

Thermal gap filler has excellent flexibility insulation, compressibility and natural surface viscosity performances. It used to fill the gap and realize the heat transfer between the heating parts and cooling parts. It also has insulation and shock mitigation effects. Meanwhile, it can satisfy the design requirements for minitype and ultra-thin equipments with excellent manufacturability and practicability. With wide range of thickness, it is widely used in electronic products.

PROPERTIES

Items	Parameter	Unit	Test Instrument
Color	White	-	Visual
Thickness	0.5~3	mm	ASTM D 374
Hardness	35~50(± 5)	Shore C	ASTM D 2240
Density	3.2(± 0.5)	g/cc	ASTM D 792
Tensile Strength	≥ 0.15	Mpa	ASTM D 412
Elongation	≥ 60	%	ASTM D 412
Compression Ratio	≥ 15 (@50Psi)	%	ASTM D 575
Operating Temperature	-50~150	$^{\circ}\text{C}$	IEC 60068-2-14

THERMAL CHARACTERISTIC

Thermal Conductivity	5.0(± 0.5)	W/m·K	ASTM D 5470
Thermal Resistance	≤ 0.7 (@20Psi/1mm)	$^{\circ}\text{Cin}^2/\text{W}$	ASTM D 5470

ELECTRICAL PROPERTIES

Breakdown Voltage	≥ 7 (@1mm)	KV	ASTM D 149
Volume Resistivity	$\geq 10^8$	$\Omega\cdot\text{cm}$	ASTM D 257

APPLICATION MATHOD:

Thermal Gap Filler must be compressed to make up for device tolerances and to remove air from the interface when it is used, so our interface material can has good contact with both the heat dissipating component and the heat generating component. In general, there are three kinds of compression for the interface material:

1. When the hardness is less than Shore C 20, it is recommended to use 30% to 40% of the compression.
2. When the hardness between Shore C 20 to Shore C 40, it is recommended to use 25% to 30% of the compression.
3. When the hardness is more than Shore C 40, it is recommended to use 20% of the compression.

