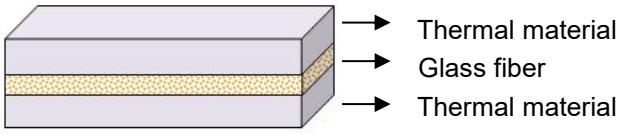
Thermal Insulator Sheet SY-SP300

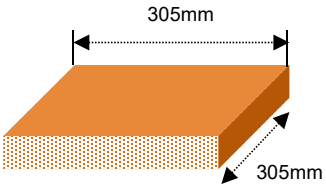
Product Specification Version Number: A-e

❖ Product Introduction

SP300 refers to a special interface filling material made of silicone resin with special formula and technology, which has high thermal conductivity and is coated on the surface of glass fiber reinforced layer. Low interface thermal resistance of thermal insulator sheet can be achieved at a relatively low pressure to use between heating power devices and radiating aluminum sheets or shells, which can effectively eliminate air, reduce the contact resistance of air, and achieve an effective filling effect.

❖ Product Structure





Standard size

❖ Product Performance

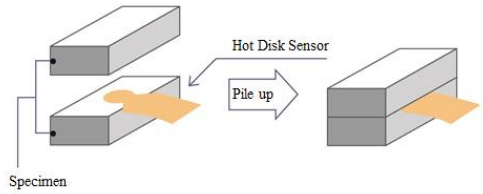
- Good thermal conductivity, low thermal resistance.
- Good electrical insulation.
- Various thickness to select, choose to laminate with adhesive film.
- High strength and good reliability.

❖ Typical Features

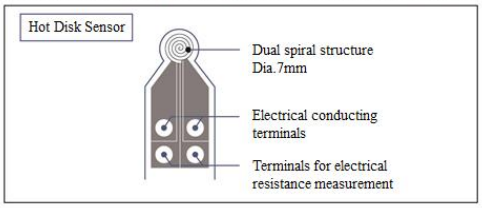
Feature	Specification Value SY-SP300 -T025	SY-SP300 -T030	SY-SP300 -T038	SY-SP300 -T050	Test Standard
Color	White	White	White	White	Visual inspection
Thickness（mm）	0.25±0.02	0.30±0.03	0.38±0.04	0.50±0.05	ASTM D374
Hardness（Shore A）	90±9	90±9	90±9	90±9	ASTM D2240
Volume Resistivity（Ω·cm）	≥1.0×10^{11}	≥1.0×10^{11}	≥1.0×10^{11}	≥1.0×10^{11}	ASTM D257
Breakdown Voltage（kV）	≥3.5	≥4.5	≥6.0	≥8.0	ASTM D149
Flame Rating（UL94）	V-0	V-0	V-0	V-0	UL94
Thermal Conductivity W/(m·k)	5.0	5.0	5.0	5.0	ISO 22007-2
Thermal Resistance @50psi（°C·in^2/W）	≤0.22	≤0.26	≤0.28	≤0.33	ASTM D5470
Service Temperature（°C）	-40~250	-40~250	-40~250	-40~250	Saintyoo TM

Remark :The thermal resistance value is the interface thermal resistance tested by ASTM D5470, which is for your reference only. In practice, the roughness of contact surface, surface flatness and assembly pressure all directly affect the thermal resistance.

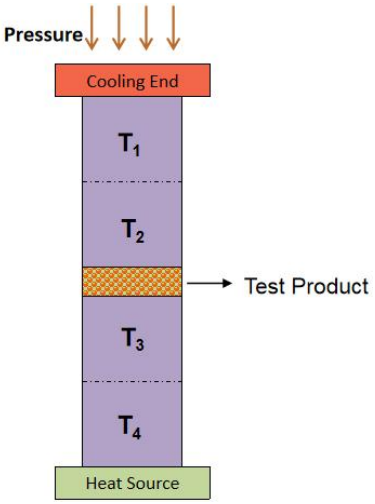
❒ Thermal Conductivity & Thermal Resistance Test Method



Thermal conductivity is calculated by software for calculation

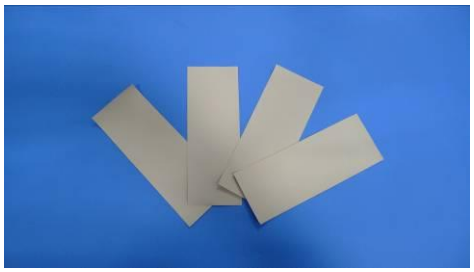


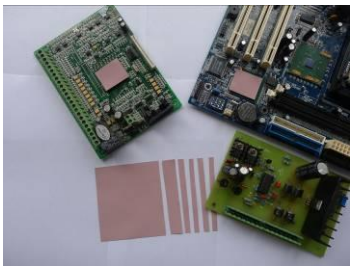
Sample dimension is 25.4*25.4*4mm.



❖ Application

The product is widely used for filling and conducting heat between the heating components and the radiating aluminum sheet or shells of UPS, switching power sources, power amplifiers, automotive electronic products, motor control, military electronic equipment, etc.





❖ Shelf Life and Storage Condition

- Shelf Life：12 months
- Storage Conditions: 15℃~35℃/0~65%RH in packing case.

❖ Naming Rules

SY	-	SP	200	-	T020	A
Company Name SY= Saintyear Electronic		Type SP=Thermal Insulator Sheet	Type of Substrate double -digit substrate number=Glass fiber Three-digit number =PI film substrate		Thickness T015=0.15mm T020=0.20mm T025=0.25mm T030=0.30mm T050=0.50mm ...	Enhancement layer A=Laminated with adhesive film

Special Declaration: We suggest the user do adaptability test before the formal use of this product. Due to the diversity of practical application, our company do not guarantee that the problem appear in a specific condition, thus our company will not be responsible for any direct, indirect or accidental damage. You can contact my company's after-sales service when problems encountered in the use, we will try to help you.