

Features & Benefits

- Various range of Thermal Conductivity and Resistance
- High Voltage Breakdown
- Adhesive strength surfaces
- High temperature applications
- Proven Long term reliability
- Thermal Curing at elevated temperature
- RoHS compliant, Halogen free and lead-free process
- Non-silicone based with zero outgassing

Thermal Set Pad Fluorine Series (TSPF-H) is a polymer composite that combines fluorine resin and high thermal conductivity filler. It is much better than traditional silicone based which requires heat curing that is ideal for high power density application.

Applications

- High power density applications which required low thermal resistance
- Industrial Motor, servo motor and EV motor
- LED modules
- Power Supplies and Semiconductors packaging
- Household appliances and consumer electronics

Configurations and Storage Conditions

The TSPF-H family comes in 1 thermal performance products:

TSPF-H

- Storage conditions 0 to 30°C for 12 months with vacuum package
 - Thickness in 100 μm , 200 μm , etc.
 - Available in Rolls, Sheets, custom sizes.
 - Packaging in Bulk, Trays or Tape & Reel.

We provide custom solutions for your applications. For further inquiries, please contact your local sales agent or directly to TCLAD sales in your region.



TSPF-H Series Thermal Set Pad

Property	Method (Units)	TSPF-H (Typ.)
Resin Base	Chemistry	Fluorine
Color	Visual	White
Hardness	ASTM D2240 (Shore A)	78
Thermal Conductivity	TO220 (W/mK)	8.6
Thermal Conductivity	ASTM D5470 (W/mK)	3.6
Thermal Resistance	ASTM D5470 ($^{\circ}\text{C}/\text{W}$)	0.08 (100 μm)
Density	ASTM D792 (g/cm ³)	2.72
Operating Temperature Range	- ($^{\circ}\text{C}$)	-40 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$
Breakdown Voltage	JIS C2110 (AC KV/mm)	>30
Peel Strength with Al plate	JIS C6481 (N/cm)	>4
Tensile Elongation	ASTM D638 (%)	80
Tensile Strength	ASTM D149 (Mpa)	1.0
Water Absorption	IPC-TM-650 2.4.25	0.5
Curing Temperature	< 5 min ($^{\circ}\text{C}$)	120
Shelf Life	Storage Temp: 0 to 30 $^{\circ}\text{C}$ (months)	12
Flame Rating	UL	E541520

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