

**TSPF Thermal Set Pad Fluorine**

**Features & Benefits**

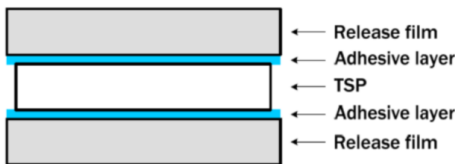
- TSP is a kind of thermal interface material that has several advantages over traditional silicon-based materials.
- Low Thermal Resistance
- High Voltage Strength
- Easy to process
- Thermal settable properties
- Adhesive characteristics
- Broad operating temperature
- Thermal curing at elevated temperature
- RoHS compliant, Halogen free & lead-free process
- Available in roll, sheet, or custom part form
- The insulator is made by a unique polymer composite that combine fluorine resin and high thermal conductivity filler. The maximum operating temperature is much higher than epoxy and silicone materials and the thermal performance is much higher than the traditional silicone or epoxy filled glass fiber pads.
- The differentiating technology of TCLAD Thermal Interface Materials resides in the dielectric formulation. This datasheet highlights the performance characteristics of TCLAD TSPF.

**Applications**

- Power Electronics
- Home Appliances
- Electric Motor
- Heater element to heat spreader

**Configurations**

- Roll
- Sheet
- Custom piece part
- Packaging
  - Bulk
  - Tray
  - Tape and Reel
- PET Release Film Thickness 50µm



Item	Thickness	Unit	Value	Method
<b>Thermal Properties</b>				
Thermal Resistance	100µm (4mil)	°C/W	<0.10	TO220
	160µm (6.3mil)		<0.06	
	220µm (8.7mil)		<0.22	
<b>Electrical Properties</b>				
Volume Resistivity		Ω	3.38 x 10 <sup>12</sup>	IPC-TM-65 2.5.17.1
Breakdown Voltage		KV/mm	>30	JIS 2110 (Si oil)
<b>Mechanical Properties</b>				
Color		-	Gray to White	Visual
Thickness		-	100µm & 200µm	Gage
Peel Strength @ 25°C		N/cm	>4	JIS C 6481
Hardness before curing		Shore A	77	ASTM D-2240A
Hardness after curing		Shore A	90	ASTM D-2240A
<b>Chemical Properties</b>				
Water Absorption		% Wt.	<0.5	IPC TM-650 2.6.2.1
<b>Safety</b>				
Flammability		-	V-0	
Continuous use Temperature		°C	-40 to 250	
<b>Curing</b>				
Curing temperature		°C	>170	

