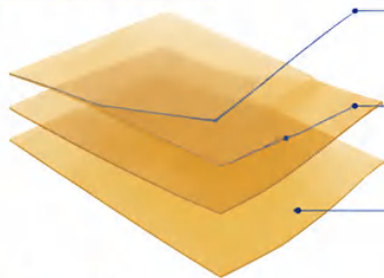




PPS THERMAL INSULATION FILM (220°C LONG-TERM RESISTANCE)

ENGINEERING SPECIFICATION CHART

1. MATERIAL STRUCTURE



Protective Surface Layer

Smooth surface treatment for excellent wear resistance and chemical protection.

PPS Base Film (Polyphenylene Sulfide)

High purity PPS film provides excellent thermal stability, mechanical strength and electrical insulation.

Thermal Treatment Layer (Optional)

Enhances dimensional stability and improves long-term performance at high temperatures.



2. TYPICAL PROPERTIES

Property	Test Method	Unit	Typical Value
Color	Visual	—	Amber (Translucent)
Density	ASTM D792	g/cm ³	1.36
Thickness	ASTM D374	μm	25 / 50 / 75 / 100 / 125 (Custom)
Tensile Strength (MD)	ASTM D882	MPa	≥ 180
Tensile Strength (TD)	ASTM D882	MPa	≥ 180
Elongation at Break (MD)	ASTM D882	%	≥ 60
Elongation at Break (TD)	ASTM D882	%	≥ 60
Heat Shrinkage (150°C, 30min)	ASTM D1204	MD	≤ 0.5
		TD	≤ 0.5
Melting Point	DSC	°C	285 – 290
Flammability	UL 94	—	V-0 (Optional)
Volume Resistivity	ASTM D257	Ω·cm	≥ 1.0 × 10 ¹⁵
Surface Resistivity	ASTM D257	Ω/sq	≥ 1.0 × 10 ¹⁴
Dielectric Strength	ASTM D149	kV/mm	≥ 200
Dielectric Constant (1MHz)	ASTM D150	—	3.0 – 3.4
Dissipation Factor (1MHz)	ASTM D150	—	≤ 0.005
Thermal Conductivity	ASTM E1530	W/m·K	0.22
Continuous Use Temperature	—	°C	220
Short Term Temperature	—	°C	240 – 260

3. AVAILABLE THICKNESS

Thickness (μm)	Tolerance (μm)
25	±2
50	±2
75	±3
100	±3
125	±4
150	±4
Custom	On Request

4. ROLL SPECIFICATIONS



Roll Width

300 mm / 500 mm / 1000 mm
Custom width available

Tolerance: ±2 mm



Roll Length

100 m / 200 m / 500 m
Custom length available

Tolerance: ±0.5%



Core Diameter

3 inch (76 mm)
6 inch (152 mm)

5. THERMAL PERFORMANCE



Continuous Use
Temperature

220°C



Short Term
Temperature

240 – 260°C

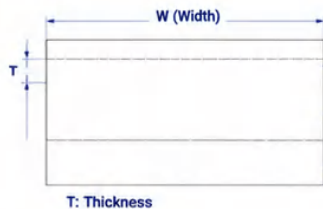
6. CHEMICAL RESISTANCE



Excellent resistance to most oils, solvents, acids, alkalis and organic chemicals.

Not recommended for strong oxidizing acids and chlorinated solvents at high temperature.

7. DIMENSIONAL DRAWING (mm)



Protective Surface Layer

PPS Base Film

Thermal Treatment Layer (Optional)

8. TYPICAL APPLICATIONS



EV Battery Packs



Energy Storage
Systems



IGBT Modules



Inverter Modules



Industrial Motors



Transformers



Power Electronics



High Temperature
Electrical Insulation



High Thermal Stability
Up to 220°C Continuous Use



Excellent Electrical
Insulation



Flame Retardant
UL 94 V-0 (Optional)



Low Thermal Shrinkage
High Dimensional Stability



Custom Converting
Available



RoHS Compliant
Halogen Free (Optional)