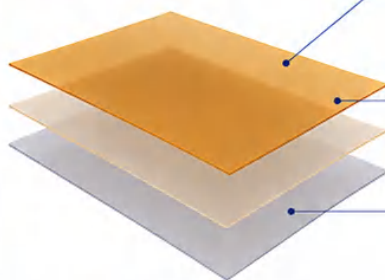




FLAME RETARDANT PPS FILM FOR INVERTER & AUTOMOTIVE ELECTRONICS

ENGINEERING SPECIFICATION CHART

1. MATERIAL STRUCTURE



Flame Retardant Coating Layer

Special flame retardant coating provides excellent self-extinguishing performance and high temperature protection.

PPS Base Film (Polyphenylene Sulfide)

High purity PPS substrate offers outstanding thermal stability, mechanical strength and electrical insulation.

Thermal Stabilization Layer (Optional)

Enhances dimensional stability and reduces thermal shrinkage under extreme conditions.



2. TYPICAL PROPERTIES

Property	Test Method	Unit	Typical Value
Color	Visual	—	Amber (Translucent)
Density	ASTM D792	g/cm ³	1.34
Thickness	ASTM D374	μm	25 / 50 / 75 / 100 / 125 (Custom)
Tensile Strength (MD)	ASTM D882	MPa	≥ 150
Tensile Strength (TD)	ASTM D882	MPa	≥ 150
Elongation at Break (MD)	ASTM D882	%	≥ 50
Elongation at Break (TD)	ASTM D882	%	≥ 50
Heat Shrinkage (150°C, 30min)	MD TD ASTM D1204	%	≤ 0.5 ≤ 0.5
Melting Point	DSC	°C	285 ~ 290
Flammability	UL 94	—	V-0 @ 0.125 mm
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 ~ 3.5
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. FLAME RETARDANT PERFORMANCE



UL94 V-0

- Self-extinguishing
- Halogen Free (Option)
- Low Smoke
- High Safety for EV Applications

5. THERMAL PERFORMANCE



Continuous Use
Temperature 220°C



Short Term
Temperature 240 ~ 260°C

4. THICKNESS OPTIONS

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

6. ELECTRICAL PERFORMANCE



- High Dielectric Strength
- Excellent Electrical Insulation
- Low Dielectric Loss
- Stable Performance in High Voltage Systems

7. ROLL SPECIFICATIONS



Roll Width

300 mm / 500 mm / 1000 mm
(Custom width available)
Tolerance: ±2 mm



Roll Length

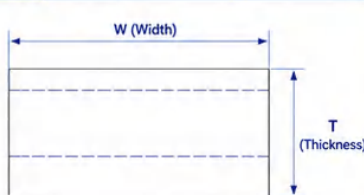
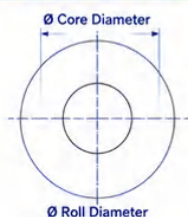
100 m / 200 m / 500 m / 1000 m
(Custom length available)
Tolerance: ±0.5%



Core Diameter

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

8. DIMENSIONAL DRAWING (mm)



9. TYPICAL APPLICATIONS



EV Inverter
Modules



IGBT Power
Modules



Motor
Controllers



Onboard
Chargers



Battery
Management
Systems



High Voltage
Electrical
Components

10. ADVANTAGES



Excellent Flame
Retardancy
(UL94 V-0)



High Temperature
Resistance up to
220°C



Excellent Electrical
Insulation



Low Thermal
Shrinkage



High Dimensional
Stability



Chemical
Resistance



Automotive Grade
Reliability



Custom Solutions
Available

The above data are typical values, not for specification purposes. All values are measured on typical samples.