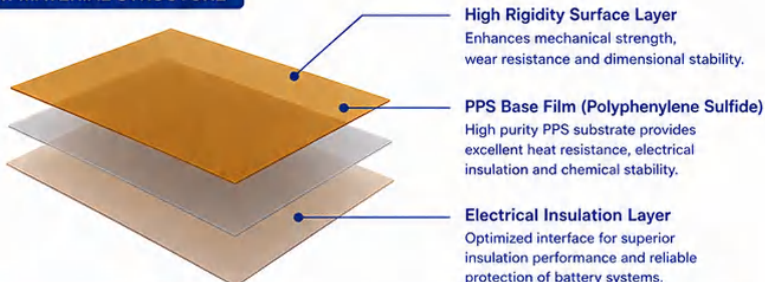




HIGH RIGIDITY PPS ISOLATION FILM FOR BATTERY MODULE

1. MATERIAL STRUCTURE



2. TYPICAL PROPERTIES

Property	Test Method	Unit	Typical Value
Color	Visual	—	Amber (Translucent)
Thickness	ASTM D374	μm	25 / 50 / 75 / 100 / 125 (Custom)
Density	ASTM D792	g/cm ³	1.35
Tensile Strength (MD)	ASTM D882	MPa	≥ 150
Tensile Strength (TD)	ASTM D882	MPa	≥ 150
Elongation at Break (MD)	ASTM D882	%	≥ 40
Elongation at Break (TD)	ASTM D882	%	≥ 40
Flexural Modulus (MD)	ASTM D790	MPa	≥ 4500
Flexural Modulus (TD)	ASTM D790	MPa	≥ 4500
Heat Shrinkage (150°C, 30min, MD)	ASTM D1204	%	≤ 0.3
Heat Shrinkage (150°C, 30min, TD)	ASTM D1204	%	≤ 0.3
Dielectric Strength	ASTM D149	kV/mm	≥ 200
Volume Resistivity	ASTM D257	Ω·cm	≥ 1.0 × 10 ¹⁶
Dielectric Constant (1MHz)	ASTM D150	—	3.0 – 3.8
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
Flammability	UL 94	—	V-0 (0.125 mm)

3. THICKNESS OPTIONS

Unit: μm
25
75
100
125
Custom

5. ELECTRICAL PERFORMANCE

- High Dielectric Strength
≥ 200 kV/mm
- High Volume Resistivity
≥ 1.0 × 10¹⁶ Ω·cm
- Low Dielectric Loss
Dissipation Factor ≤ 0.005
- Excellent Insulation Reliability
Ensures safety in high voltage battery systems

4. MECHANICAL PERFORMANCE

- High Flexural Modulus
High rigidity and stiffness
- Excellent Dimensional Stability
Maintains tolerance under high temperature
- Low Thermal Shrinkage
Stable structure, high reliability
- Puncture & Wear Resistance
Suitable for demanding battery environments

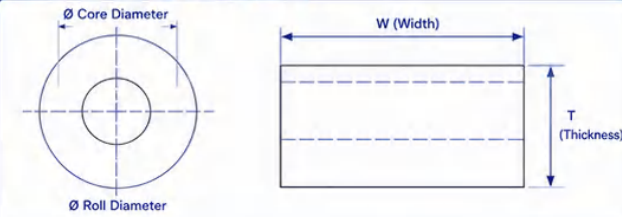
6. THERMAL PERFORMANCE

- Continuous Use Temperature
220°C
- Short Term Temperature
240 – 260°C

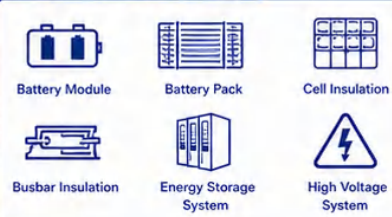
7. ROLL SPECIFICATIONS

- Roll Width (mm)**
300 / 500 / 1000
Custom (Max. 1200 mm)
- Roll Length (m)**
100 / 500 / 1000
Custom
- Core Diameter**
3 inch (76 mm) / 6 inch (152 mm)

8. DIMENSIONAL DRAWING (mm)



9. TYPICAL APPLICATIONS



10. KEY ADVANTAGES

- High Rigidity
Strong support and protection
- Excellent Electrical Insulation
- High Temperature Resistance
Up to 220°C
- Low Thermal Shrinkage
- High Dimensional Stability
- Chemical Resistance
- Flame Retardant
UL94 V-0
- Long-term Reliability

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