

## Porous PBI Separator (P-PBI-100)

Catlog Number: FCEM-0064

### • Description

A porous polybenzimidazole membrane with high porosity, designed for soaking in liquid electrolytes like H<sub>3</sub>PO<sub>4</sub> or KOH for specialized energy cells.

### • Basic Information

Polymer/Material Base: Porous PBI

Ion Exchange Capacity (IEC): N/A

Ionic Conductivity (S/cm): 0.10 - 0.20 (Liquid)

Thickness (μm): 100 - 110

Tensile Strength (MPa): 25 - 40

Elongation at Break (%): 80 - 120

Water Uptake (%): 60 - 80

Swelling Ratio (%): < 5

Max Operating Temp (°C): 250

Chemical Stability (Fenton's Test): Acid/Base Resist

Density (g/cm<sup>3</sup>): 1.10 (Porous)

Ash Content (%): < 0.10

Volatile Content (%): < 2.0

EW (Equivalent Weight): N/A

Glass Transition Temp (T<sub>g</sub>): 425

Storage Humidity (%): 0 - 40

Storage Temp (°C): 15 - 30

Solubility in Polar Solvents: Soluble in H<sub>2</sub>SO<sub>4</sub>

Ionic Resistance (Ω·cm<sup>2</sup>): 0.3

Dimensional Stability (%): < 3

Thermal Stability (TGA): > 500°C

Flammability Rating: V-0

Surface Roughness (Ra): < 1.5 μm

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