

Fluoropolymer-Impregnated Carbon Paper

Catlog Number: FCSM-0061

• Description

High-durability GDL substrate impregnated with FEP (Fluorinated Ethylene Propylene) for enhanced structural stiffness and hydrophobic water management.

• Basic Information

Material Composition: Carbon Fiber / FEP

Thickness (μm): 210

Density (g/cm^3): 0.48

Surface Resistance ($\text{m}\Omega\cdot\text{cm}^2$): < 12

Tensile Strength (MPa): 30

Thermal Conductivity ($\text{W}/\text{m}\cdot\text{K}$): 1.6

Porosity (%): 75

Operating Temp Max ($^{\circ}\text{C}$): 200

Flexural Strength (MPa): N/A

Corrosion Resistance ($\mu\text{A}/\text{cm}^2$): Excellent

Contact Angle ($^{\circ}$): 130

Gas Permeability ($\text{cm}^3/\text{cm}^2\cdot\text{s}$): 45

Coefficient of Thermal Expansion ($10^{-6}/\text{K}$): 2.8

Shore Hardness: N/A

Water Uptake (%): N/A

Ash Content (%): < 0.05

Mean Pore Size (μm): 40

Compressive Strength (MPa): 1.2

Electrical Conductivity (S/cm): 240

Specific Surface Area (m^2/g): 0.8

Young's Modulus (GPa): 9

Chemical Stability: High Stability

Coating Material: FEP

Surface Roughness (Ra): 2.5

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