

Carbon Felt for Redox Flow Batteries

Catlog Number: FCSM-0014

• Description

High-surface-area polyacrylonitrile-based carbon felt used as a structural electrode in large-scale energy storage fuel cell systems.

• Basic Information

Material Composition: PAN-based Carbon Fiber

Thickness (μm): 5000

Density (g/cm^3): 0.09

Surface Resistance ($\text{m}\Omega\cdot\text{cm}^2$): < 20

Tensile Strength (MPa): 0.5

Thermal Conductivity ($\text{W}/\text{m}\cdot\text{K}$): 0.1

Porosity (%): 95

Operating Temp Max ($^{\circ}\text{C}$): 350

Flexural Strength (MPa): N/A

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

Contact Angle ($^{\circ}$): 0 (Wettable)

Gas Permeability ($\text{cm}^3/\text{cm}^2\cdot\text{s}$): 1200

Coefficient of Thermal Expansion ($10^{-6}/\text{K}$): 2

Shore Hardness: N/A

Water Uptake (%): N/A

Ash Content (%): < 0.2

Mean Pore Size (μm): 80

Compressive Strength (MPa): 0.1

Electrical Conductivity (S/cm): 50

Specific Surface Area (m^2/g): 150

Young's Modulus (GPa): 0.05

Chemical Stability: Chemically Inert

Coating Material: None

Surface Roughness (Ra): 10

 For Research or Industrial Raw Materials, Not For Personal Medical Use!