

## Nitrogen-Doped Carbon Felt

Catlog Number: BMBCC-0042

### • Description

Three-dimensional carbon fiber network with nitrogen doping to enhance catalytic activity and wettability in flow battery systems.

### • Basic Information

Substrate Material: Carbon Fiber

Purity (%): C: 95 / N: 3

Thickness ( $\mu\text{m}$ ): 3000

Width (mm): 200

Areal Density ( $\text{g}/\text{m}^2$ ): 400 - 450

Tensile Strength (MPa):  $\geq 0.5$

Elongation (%): N/A

Surface Finish: Fibrous

Surface Roughness ( $R_a$ ,  $\mu\text{m}$ ): N/A

Electrical Resistivity ( $\Omega\cdot\text{m}$ ):  $1.5 \times 10^{-3}$

Thermal Conductivity ( $\text{W}/\text{m}\cdot\text{K}$ ): 0.2

Melting Point ( $^{\circ}\text{C}$ ): 3500

Oxidation Resistance (Temp/Time):  $450^{\circ}\text{C}$  / 30min

Coating Type: N-Doping

Coating Thickness ( $\mu\text{m}$ ): N/A

Core ID (mm): N/A

Standard Length (m): 0.5 (Sheet)

Operating Voltage Range (V): 0.0 - 1.5

Application Compatibility: Redox Flow Cells

Storage Requirements: Room Temp

Form Factor: Sheet

Hydrophilic Properties: Ultra-Hydrophilic

Compliance / Grade: Research Grade

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