

## High-Conductivity Graphite Foil (0.1mm)

Catlog Number: FCSM-0041

### • Description

Ultra-thin flexible graphite foil designed for use as a compliant conductive interface between the bipolar plate and current collector to reduce contact resistance.

### • Basic Information

Material Composition: Natural Graphite (99.8%)

Thickness ( $\mu\text{m}$ ): 100

Density ( $\text{g}/\text{cm}^3$ ): 1.15

Surface Resistance ( $\text{m}\Omega\cdot\text{cm}^2$ ):  $< 5$

Tensile Strength (MPa): 4

Thermal Conductivity ( $\text{W}/\text{m}\cdot\text{K}$ ): 160 (Radial)

Porosity (%): 12

Operating Temp Max ( $^{\circ}\text{C}$ ): 550

Flexural Strength (MPa): N/A

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

Contact Angle ( $^{\circ}$ ): 95

Gas Permeability ( $\text{cm}^3/\text{cm}^2\cdot\text{s}$ ):  $< 10^{-6}$

Coefficient of Thermal Expansion ( $10^{-6}/\text{K}$ ): 1.2 (Axial)

Shore Hardness: 35 (Shore A)

Water Uptake (%):  $< 0.4$

Ash Content (%):  $< 0.1$

Mean Pore Size ( $\mu\text{m}$ ): N/A

Compressive Strength (MPa): 22

Electrical Conductivity ( $\text{S}/\text{cm}$ ): 1100

Specific Surface Area ( $\text{m}^2/\text{g}$ ): 30

Young's Modulus (GPa): 1.6

Chemical Stability: Chemically Inert

Coating Material: None

Surface Roughness (Ra): 0.3

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