

High-Purity Flexible Graphite Sheet (99.9%)

Catlog Number: FCSM-0033

• Description

Nuclear-grade flexible graphite sheet with ultra-low sulfur content, used as a high-performance heat spreader and sealing element in high-power stacks.

• Basic Information

Material Composition: 99.9% Natural Graphite

Thickness (μm): 500

Density (g/cm^3): 1.1

Surface Resistance ($\text{m}\Omega\cdot\text{cm}^2$): < 8

Tensile Strength (MPa): 5.5

Thermal Conductivity ($\text{W}/\text{m}\cdot\text{K}$): 150

Porosity (%): 10

Operating Temp Max ($^{\circ}\text{C}$): 500

Flexural Strength (MPa): N/A

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

Contact Angle ($^{\circ}$): 90

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

Coefficient of Thermal Expansion ($10^{-6}/\text{K}$): 1.0 (Z-axis)

Shore Hardness: 45 (Shore A)

Water Uptake (%): < 0.5

Ash Content (%): < 0.1

Mean Pore Size (μm): N/A

Compressive Strength (MPa): 28

Electrical Conductivity (S/cm): 1200

Specific Surface Area (m^2/g): 35

Young's Modulus (GPa): 1.8

Chemical Stability: Chemically Inert

Coating Material: None

Surface Roughness (Ra): 0.4

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