Eata Battery

Boron-Doped Diamond (BDD) Film

Catlog Number: FCSM-0070

Description

A structural electrode coating for specialized electrochemical fuel cells, providing an extremely wide potential window and unmatched chemical stability.

Basic Information

Material Composition: Boron-Doped Diamond

Thickness (μm): 5

Density (g/cm³): 3.51

Surface Resistance (mΩ·cm²): < 2

Tensile Strength (MPa): 1000

Thermal Conductivity (W/m·K): 2000

Operating Temp Max (°C): 600

Flexural Strength (MPa): N/A

Corrosion Resistance (μA/cm²): Best in Class

Contact Angle (°): 65

Coefficient of Thermal Expansion (10^{-6}/K): 1.1

Shore Hardness: 10000 (HV)

Ash Content (%): 100

Mean Pore Size (μm): N/A

Compressive Strength (MPa): 2500

Electrical Conductivity (S/cm): 1000

Specific Surface Area (m²/g): 0.5

Young's Modulus (GPa): 1100

Chemical Stability: Ultra Stable

Coating Material: Diamond

Surface Roughness (Ra): 0.05

Eata Battery delivers the world's battery makers a single, reliable source for every high-performance raw material—cathode to collector, catalyst to membrane—so you can design, scale and ship next-generation batteries faster.

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