Eata Battery

Scandia-Stabilized Zirconia (ScSZ) Plate

Catlog Number: FCSM-0075

Description

A structural ceramic electrolyte plate stabilized with scandia, offering higher ionic conductivity than YSZ for intermediate-temperature SOFCs.

Basic Information

Material Composition: 10mol% ScSZ

Thickness (μm): 200

Density (g/cm³): 5.85

Surface Resistance (mΩ·cm²): N/A (Ionic)

Tensile Strength (MPa): 320

Thermal Conductivity (W/m·K): 2.8

Porosity (%): < 0.1

Operating Temp Max (°C): 900

Flexural Strength (MPa): 400

Corrosion Resistance (μA/cm²): Excellent

Contact Angle (°): 65

Gas Permeability (cm³/cm²·s): $< 10^{-10}$

Coefficient of Thermal Expansion (10^{-6}/K): 10.8

Shore Hardness: 1350 (HV)

Ash Content (%): 100

Mean Pore Size (μm): N/A

Compressive Strength (MPa): 1800

Electrical Conductivity (S/cm): 0.15 (Ionic)

Specific Surface Area (m²/g): 1.2

Young's Modulus (GPa): 220

Chemical Stability: Redox Stable

Coating Material: None

Surface Roughness (Ra): 0.2

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.

Tel: 1-631-637-0420 | 1-631-533-0595
Email: info@eataray.com
Suite 103, 17 Ramsey Road, Shirley, NY 11967, USA