

## Thin Ceramic Electrolyte Plate (CP-YSZ-150)

Catlog Number: FCEM-0051

### • Description

A self-supporting 150 $\mu$ m 8YSZ ceramic plate used as a high-density electrolyte for planar SOFC designs, ensuring zero gas permeability.

### • Basic Information

Polymer/Material Base: 8 mol% Y2O3 - ZrO2

Ion Exchange Capacity (IEC): N/A

Ionic Conductivity (S/cm): 0.01 - 0.18 (at 800°C)

Thickness ( $\mu$ m): 150 - 160

Tensile Strength (MPa): 250 - 320

Elongation at Break (%): < 0.1

Max Operating Temp (°C): 1000

Chemical Stability (Fenton's Test): Chemically Inert

Density (g/cm<sup>3</sup>): 5.95

Ash Content (%): < 0.01

EW (Equivalent Weight): N/A

Glass Transition Temp (Tg): N/A

Storage Humidity (%): 0 - 95

Storage Temp (°C): Any

Solubility in Polar Solvents: Insoluble

Ionic Resistance ( $\Omega$ ·cm<sup>2</sup>): 0.15

Dimensional Stability (%): < 1

Thermal Stability (TGA): > 1800°C

Flammability Rating: Non-flammable

Surface Roughness (Ra): < 0.3  $\mu$ m

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