

Manganese-Doped BZY (BZMY)

Catlog Number: FCEM-0073

• Description

A modified proton-conducting ceramic electrolyte powder with manganese doping to improve grain boundary conductivity at 500-700°C.

• Basic Information

Polymer/Material Base: BaZr_{0.7}Y_{0.2}Mn_{0.1}O₃

Ion Exchange Capacity (IEC): N/A

Ionic Conductivity (S/cm): 0.01 - 0.035 (at 600°C)

Thickness (µm): N/A (Powder)

Tensile Strength (MPa): 140 - 180

Elongation at Break (%): N/A

Max Operating Temp (°C): 900

Chemical Stability (Fenton's Test): High CO₂ Stability

Density (g/cm³): 6.12

Ash Content (%): < 0.02

EW (Equivalent Weight): N/A

Glass Transition Temp (T_g): N/A

Storage Humidity (%): 0 - 85

Storage Temp (°C): Any

Solubility in Polar Solvents: Insoluble

Ionic Resistance (Ω·cm²): 0.26

Dimensional Stability (%): < 1

Thermal Stability (TGA): > 1450°C

Flammability Rating: Non-flammable

Surface Roughness (Ra): < 0.5 µm

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