

Lanthanum Silicate Apatite Electrolyte (LSO)

Catlog Number: FCEM-0023

• Description

An innovative apatite-type silicate electrolyte offering high oxygen ion mobility at temperatures below traditional zirconia electrolytes.

• Basic Information

Polymer/Material Base: La_{9.33}Si₆O₂₆

Ion Exchange Capacity (IEC): N/A

Ionic Conductivity (S/cm): 0.01 - 0.04 (at 600°C)

Thickness (µm): 150 - 250

Tensile Strength (MPa): 180 - 230

Elongation at Break (%): < 0.1

Max Operating Temp (°C): 950

Chemical Stability (Fenton's Test): Chemical Inert

Density (g/cm³): 5.45

Ash Content (%): < 0.01

EW (Equivalent Weight): N/A

Glass Transition Temp (T_g): N/A

Storage Humidity (%): 0 - 95

Storage Temp (°C): Any

Solubility in Polar Solvents: Insoluble

Ionic Resistance (Ω·cm²): 0.2

Dimensional Stability (%): < 1

Thermal Stability (TGA): > 1600°C

Flammability Rating: Non-flammable

Surface Roughness (Ra): < 0.5 µm

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