

## Lanthanum Silicate Pellet (LSO-A)

Catlog Number: FCEM-0046

### • Description

A sintered silicate electrolyte pellet for oxygen sensors and solid oxide cells, offering distinct ionic properties below 700°C.

### • Basic Information

Polymer/Material Base: Apatite La<sub>10</sub>Si<sub>6</sub>O<sub>27</sub>

Ion Exchange Capacity (IEC): N/A

Ionic Conductivity (S/cm): 0.01 - 0.03 (at 600°C)

Thickness (µm): 500 - 1000

Tensile Strength (MPa): 200 - 250

Elongation at Break (%): < 0.1

Max Operating Temp (°C): 950

Chemical Stability (Fenton's Test): Chemical Inert

Density (g/cm<sup>3</sup>): 5.5

Ash Content (%): < 0.01

EW (Equivalent Weight): N/A

Glass Transition Temp (T<sub>g</sub>): N/A

Storage Humidity (%): 0 - 95

Storage Temp (°C): Any

Solubility in Polar Solvents: Insoluble

Ionic Resistance (Ω·cm<sup>2</sup>): 0.22

Dimensional Stability (%): < 1

Thermal Stability (TGA): > 1600°C

Flammability Rating: Non-flammable

Surface Roughness (Ra): < 0.4 µm

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