

## Strontium-Doped Lanthanum Aluminate (LSAT)

Catlog Number: FCEM-0094

### • Description

A high-stability substrate and electrolyte material for thin-film SOFC research, offering excellent lattice matching with perovskite electrodes.

### • Basic Information

Polymer/Material Base: (La,Sr)(Al,Ta)O<sub>3</sub>

Ion Exchange Capacity (IEC): N/A

Ionic Conductivity (S/cm): 0.01 - 0.03 (at 800°C)

Thickness (µm): 500 (Substrate)

Tensile Strength (MPa): 250 - 300

Elongation at Break (%): < 0.1

Max Operating Temp (°C): 1050

Chemical Stability (Fenton's Test): Excellent

Density (g/cm<sup>3</sup>): 6.74

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>): 0.25

Dimensional Stability (%): < 1

Thermal Stability (TGA): > 1800°C

Flammability Rating: Non-flammable

Surface Roughness (Ra): < 0.1 µm

 For Research or Industrial Raw Materials, Not For Personal Medical Use!