

## Lithium Iron Silicate

Catlog Number: BMCM-0021

### • Description

Polyanionic silicate cathode known for exceptional thermal stability and the potential for multi-electron exchange per formula unit in lithium cells.

### • Basic Information

Chemical Formula:  $\text{Li}_2\text{FeSiO}_4$

Appearance: Dark Grey Powder

Molecular Weight: 159.84 g/mol

D50 Particle Size: 0.5 - 2  $\mu\text{m}$

Tap Density:  $\geq 0.8 \text{ g/cm}^3$

BET Surface Area: 20 - 40  $\text{m}^2/\text{g}$

1st Discharge Capacity:  $\geq 160 \text{ mAh/g}$

1st Coulombic Efficiency:  $\geq 88\%$

pH Value: 8.0 - 10.0

Moisture Content:  $\leq 0.20\%$

Magnetic Impurities:  $\leq 100 \text{ ppb}$

Li/Na Content: 8.5 - 9.0%

Ni Content: N/A

Mn Content: N/A

Co Content: N/A

Transition Metals: Fe Silicate

Crystal Structure: Polyanionic

Compaction Density:  $\geq 2.1 \text{ g/cm}^3$

Storage Conditions: Sealed, dry

Conductivity:  $\sim 10^{-12} \text{ S/cm}$

Voltage Range: 2.0 - 4.8 V

Purity:  $\geq 98.5\%$

Primary Application: Experimental Li-ion

Thermal Stability: Very High

Cycle Life:  $> 500$  cycles

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