

Performance enhancement Li-ion battery cathode additive

DESCRIPTION	
Target Cell Chemistry	NMCs, NCA/ Gr, Gr+Si
Additive Function	Long cycle life
	Excellent high temperature capacity retention & recovery
Target Product	Li-ion cells for E-mobility, ESS, UAVs
Application	Long cycle life
	High temperature storage, low gassing, high capacity retention
	Supplement/replacement for LiPO2F2, LiDFP2
ADDITIVE SPECIFICATIONS	
Additive Purity	≥ 99.9%
Impurities	H ₂ O < 50 ppm, HF < 20 ppm
Recommended Use Range	0.5 to 5%
Handling and Use	Handle in dry room or glovebox. Do not expose to moisture or air.
SDS	Provided with product
Packaging/Labeling	Complies with local shipping regulations
Availability	Product available upon request. Lead time is 2 to 4 weeks.

TESTING PARAMETERS

Power: 10 sec. 1C pulse discharge at 50% SOC

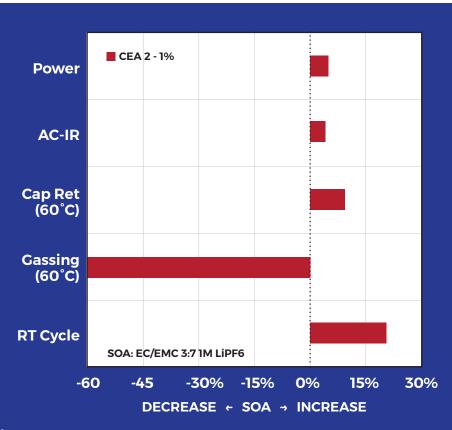
AC-IR: 1 kHz at 50% SOC

High Temperature Storage: Four weeks at 60°C, 100% SOC. Capacity retention is the ratio of 0.3C charge before storage to 0.3C discharge after. Gassing was measured as the change in thickness at the center of the cell.

Cycle Life: 25°C, 1C/IC cycling (CV cut-off C/I0)

Cell Configuration: 1.6 Ah capacity; stacked plate pouch cell, NMC811 - artificial graphite, 2.7 to 4.2V

- · Cathode loading: 28.98 mg/cm²
- · Anode loading: 19.22 mg/cm²
- · Estimated energy density: 451 Wh/L
- · Estimated specific energy: 235 Wh/kg



Case study data examples are available upon request.

For further application information and product details, please email **info@sionicenergy.com**.

