

Lithium Ion Battery Anode Material Carboxymethyl Cellulose Cmc Powder

Item Number: CL19



Introduction

High purity carboxymethyl cellulose CMC powder engineered for lithium ion battery anode slurry preparation. This premium water soluble binder provides superior rheological control, strong adhesion, and stable cycling performance for advanced laboratory cell fabrication and energy storage research workflows.

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Application	Description	Key Benefit
Lithium-Ion Graphite Anodes	Thickening and stabilizing agent blended with SBR emulsion for synthetic and natural graphite slurries.	Prevents graphite settling, ensures uniform coating thickness, and enhances mechanical flexibility on copper foils.
Silicon-Graphite Composite Anodes	Structural binder component accommodating severe volume expansion in high-capacity silicon-dominant anodes.	Maintains cohesive particle-to-particle contact and mitigates active material pulverization during lithiation.
Lithium-Sulfur (Li-S) Cathodes	Aqueous binder and additive for sulfur-carbon composite cathodes undergoing multi-electron redox reactions.	Restricts soluble polysulfide migration via polar functional groups, dramatically improving cycling efficiency.
Sodium-Ion Battery Anodes	Water-soluble binder system utilized in hard carbon and non-graphitic carbon negative electrode formulations.	Delivers cost-effective aqueous processing, stable electrode cohesion, and resilient interphase boundary formation.
Supercapacitor Electrodes	Rheology modifier for activated carbon and high-surface-area porous carbon electrode slurries.	Enables defect-free thin-film casting and maximizes electrolyte wettability across porous electrode architectures.
Solid-State Battery Interlayers	Polymer additive in composite solid electrolyte interlayers and flexible electrode-electrolyte buffer films.	Enhances interfacial ionic contact and mechanical compliance at dynamic solid-state electrochemical interfaces.

Item Code	Parameter	Standard Value	Measured Value
CL19	Appearance	White powder	White powder
CL19	Purity	>99.5%	99.7%
CL19	Viscosity (2% Aqueous Solution)	7,000-10,000 mPa·s	7,458 mPa·s
CL19	Moisture (Water Content)	<10.0%	5.35%
CL19	Degree of Substitution (D.S.)	0.6-0.9	0.86
CL19	pH Value (Aqueous Solution)	6.0-8.5	6.77
CL19	Heavy Metals (as Pb)	<15 ppm	Compliant (Pass)
CL19	Iron Content (Fe)	<40 ppm	Compliant (Pass)
CL19	Arsenic Content (As)	<2 ppm	Compliant (Pass)
CL19	Primary Functional Role	Lithium Battery Anode Thickener	Verified
CL19	Standard Packaging	500 g/bag	500 g/bag