High Performance Lithium Battery Anode Material Binder Styrene Butadiene Rubber Sbr Latex

Item Number: FZ32

Introduction

Discover high performance styrene butadiene rubber SBR latex binder for lithium battery anode fabrication. This aqueous emulsion delivers superior flexibility, low viscosity, tight pH control, and optimal adhesion to maximize active material loading and cycling stability.

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Application	Description	Key Benefit
Synthetic & Natural Graphite Anodes	Standard negative electrode slurry formulation for consumer electronics, power tools, and high-energy EV cells.	Delivers robust peel strength with minimal binder consumption, maximizing active material content and gravimetric energy density.
Silicon-Carbon (Si/C) Composite Electrodes	Advanced high-capacity anode systems subject to massive cyclic volumetric expansion during lithiation.	Elastic polymer matrix absorbs continuous mechanical breathing, preserving electronic percolation pathways and prolonging cycle life.
High-Rate Cylindrical & Prismatic Cells	High-power cell designs requiring uniform conductive networks and ultra-low internal charge-transfer resistance.	Low binder impedance and uniform additive dispersion enable superior C-rate discharge capability and reduced heat generation.
Energy Storage System (ESS) Battery Packs	Large-format grid-scale battery systems demanding multi-thousand-cycle durability and minimal degradation.	Outstanding chemical stability prevents binder dissolution into carbonate electrolytes, ensuring decade-scale capacity retention.
Aqueous Slurry R&D & Pilot Line Trials	Academic, institutional, and industrial laboratory formulation of water-based anode coatings and binder screening.	Excellent shelf stability and ready miscibility with CMC and conductive carbon slurries allow reproducible, fast prototyping.
Solid-State & Hybrid Electrolyte Anode Interfaces	Flexible, thin-film negative electrode pre-treatment for solid-state and polymer electrolyte battery architectures.	High mechanical compliance ensures sustained interfacial contact with solid electrolytes without interfacial void formation.

Parameter Item	Specification Standard	Verified Performance	Test Conditions / Reference
Item Identifier	FZ32	FZ32	Standard Factory Assignment
Physical Appearance	Milky white liquid emulsion	Milky white liquid emulsion	Visual Inspection at 25°C
Total Solids Content (wt%)	48.0 ~ 53.0	49.51	Gravimetric Drying Method
pH Value	6.0 ~ 7.0	6.90	Digital pH Meter at 25°C
Brookfield Viscosity (mPa·s)	80 ~ 300	231	Brookfield Viscometer at 25°C
Surface Tension (mN/m)	41.0 ~ 47.0	42.0	Wilhelmy Plate / Du Noüy Ring Method
Primary Application Target	Lithium-ion battery anode binder	Lithium-ion battery anode binder	Aqueous Negative Electrode Slurries
Standard Packaging	500 g / bottle	500 g / bottle	Sealed Chemical-Resistant Container