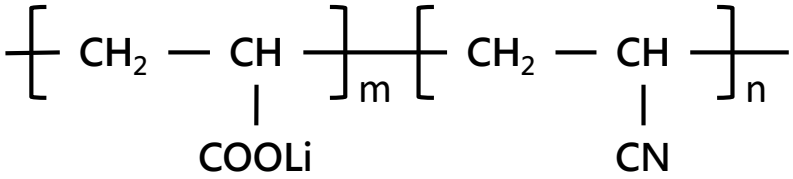
ETERESM BA3913

Anode Binder for silicon Lithium Battery

About BA3913

BA3913 is a light yellow polyacrylic acid water-based resin. In the lithium-ion battery graphite negative electrode system, it can be used as a high-performance dispersant to stabilize the slurry suspension and provide good adhesion performance, contributing good peel strength to the electrode sheet. At the same time, it has provides better electrochemical stability and cycle life for lithium-ion batteries.



Feature

- BA3913 is easy to operate and is suitable for a variety of slurry mixing processes, with good slurry viscosity stability.
- It can be used with CMC, SBR separately, or mixed and compounded.
- It exhibits excellent electrode peeling force, improving battery safety and cycle life.
- This product effectively solves the risk of fine powder generated by electrode sheet slitting and punching process.

Physical properties

Product	BA3913
Appearance	Light yellow transparent solution
Ingredient	Acrylic acid derived polymer
Solid content[1]	6.0 ± 0.5%
Viscosity [2]	10000 ± 3000
pH	7.0 ± 0.5

1) Test temperature 150±2℃, heating time 30±2min, sample size 1.5-2.0g
2) Viscometer Brookfield LVT #4/rotation speed 30rpm@25℃.

Recommendation

1. Formula

The recommended dosage of BA3913 binder in the negative electrode slurry is 1.0-2.5%, graphite is 92.5-97.0%, conductive carbon is 0.5-1.0%, CMC is 0.3-0.5%, and SBR is 0.3-0.5%. Customers can make appropriate adjustments based on actual usage conditions.

2. Hybrid approach

Dry mixing stage: Add graphite, conductive carbon and CMC into the mixing barrel for dry mixing at a revolution speed of 10-20 r/min for 10-20 minutes.

Kneading stage: Add deionized water to make a solid content of 70±3%, knead at a revolution speed of 30-40 r/min for 60-80 minutes.

Dispersion stage: Add BA3078 binder and deionized water to make a solid content of 48-50%, and disperse at a speed of 2000-3000 r/min for 60-80 minutes.

Dispersion stage (SBR): Add SBR binder and deionized water to make a solid content of 48-50% for dispersion, the dispersion speed is 800-1000 r/min, and the time is 30 minutes.

Screening: After viscosity adjustment, screen through a 120-150 mesh screen.

Please adjust the instruction parameters to optimize the production effect according to actual needs and equipment conditions.

Storage conditions

1. Store in a sealed container in a cool, dry, well-ventilated place at a temperature between 5° and 35°.
2. Storage period: 3 months.
3. Ordinary transportation.