

—
Min Time
Max Value!



GELON 杰能

WWW.LIBGROUP.NET

MATERIAL SPECIFICATION

PRODUCT NAME: Binder

PRODUCT MODEL: LA133

Simplify Lithium ion Battery solution

—
Tel:+86-5398157529
Fax:+86-5398157529
Email:ekain@libgroup.net

SHANDONG
GELON LIB CO.,LIMITED

Introduction of LA133 aqueous binder

Name	LA133
Appearance	Milky white or light yellow water emulsion
Viscosity (mPa.S, 40°C)	≧ 7300
D50 (um)	≦ 1.0
Solid content (%)	15.0±0.2
pH	7-9

LA alternative PVDF and SBR was applied to lithium ion batteries. Without adding thickener CMC and organic solvents such as NMP, production process is simple, safe, environmental protection, no pollution.

In 2008, through a long period of time of validation, the largest domestic power battery producers began in their products application LA; In 2011, through three years of authentication, LA certified by China's top battery maker, and start application in its high-end battery products. Relative to the PVDF and SBR, LA electrical contact of electrode powder materials have more stable ability, which can effectively improve circulation, low discharge and high temperature with battery storage, such as performance, increasing the safety of the battery. To replace PVDF LA, can completely avoid the use of organic solvents in the electrode manufacture (NMP), which not only can greatly reduce the cost of raw materials, at the same time, also can completely prevent NMP pollution to the environment and the harm of operation staff. NMP has into the high attention in 2011 by the European Union to control material.

LA has more than 10 years of marketing market, widely used in consumer electronics batteries, power batteries and energy storage batteries. In 2012, has sold more than 1150 tons, 2013 tons of annual production capacity has reached 2013.

Applicable for all kinds of cathode and anode materials

LA133 aqueous binder is the water dispersion of acrylonitrile multi-copolymer, it has good antioxidant and anti-reduction ability and can be applied to a variety of cathode and anode materials (including LiCoO₂、LiMn₂O₄ and LiFePO₄ cathode material、carbon anode material and activated carbon)

LA133 has a relatively high viscosity compared to LA132 and has a better suspension ability to powder materials.

LA133 aqueous binder has high viscosity and pure quality, thickener and organic solvent are not needed while using it, so the cost of materials can be reduced effectively, at the same time, the environmental pollution caused by solvent-based binder during the production of lithium-ion battery and poor safety can also be effectively avoided.

The lithium-ion battery which uses LA133 aqueous binder has excellent cycle performance and rate capability, the cell polarization is slight.

Precautions:

1. Adjust the consistency of slurry by adding water to avoid the edge folding phenomenon of slurry.
2. The small bubbles formed during the process of stirring can be eliminated by vacuum defoaming or

- adding a small amount of alcohol or n-butyl alcohol.
3. The content of binder in the negative electrode is suggested 2~5%,positive is 1.5~4%(lithium iron phosphate can appropriately increase the amount of binder).
 4. After drying the electrode, cool it in the air before rolling, cutting and winding.
 5. Fully dry to eliminate the absorbed water before injecting liquid to the battery.
 6. In shelf life, it is normal that the viscosity of product increases as time goes by.

