

# Aluminum for EV battery

## Introduction of aluminum for EV battery

Aluminum for EV battery. Application fields: new energy power battery cover plate, battery separator/side plate, power battery shell material, mobile phone battery shell material, etc.

## Introduction of aluminum plate for battery case

The battery shell material is a high-purity aluminum alloy product formed through hot rolling, cold rolling, annealing, stretch bending and straightening, and aluminum foil rolling, which is used to hold the electrolyte and the plate group. This kind of housing not only requires acid resistance, heat resistance and shock resistance, but also has high strength and thinner housing walls.

The main products of aluminum plates for battery shell materials are 3xxx series aluminum alloy plates in h14 state, which are used in mobile phone battery shell end covers, battery industry and other fields. Mingtai Aluminum strictly controls the production process and provides standardized products with low production rate and excellent performance. It is a supplier of Samsung, LG and other international companies.

The product thickness of the battery shell material is: 0.40-0.60mm, which has the advantages of low ear making rate, good deep drawing performance and welding performance. A small amount of manganese is added to the alloy, so that the product has high strength, corrosion resistance, high temperature resistance, radiation resistance and fast heat dissipation, which fully meets the standards required by the end materials of mobile phone battery shells.

## Introduction of aluminum for battery water cooling plate

The water-cooled plate is an important part of the thermal management system of new energy vehicles, and is usually used in load-bearing and corrosion-resistant environments. Therefore, when selecting the manufacturing material of the water-cooled plate, the strength and corrosion resistance of the material need to be considered.

## Advantages of Aluminum for EV Battery

Strong mechanical properties, high blast resistance, strong puncture and tear resistance

Excellent moisture-proof, light-shielding and barrier properties

Clean surface, uniform color, no oil

Smooth surface, no pinholes, no spots

Light weight, lighter body weight, lower fuel consumption, better improve car mileage

Easy to punch, high elongation, strong plasticity, high consistency

Zero carbon emission, low cost

Energy saving, environmental protection, low carbon, high recycling rate

A number of tests, strict implementation of industry standards, safety and health

## Aluminum advantages of Mingtai battery case material

Control the production process

Provide standardized products through hot rolling, cold rolling, intermediate annealing, stretch bending straightening and aluminum foil rolling to form aluminum alloys with high deep drawing properties. The production process is carried out in strict accordance with the established production standards, and the company has established strict quality standards to ensure excellent product quality.

Product ear rate is low

Excellent performance and good deep drawing effect The thickness of

the product is 0.60-1.2mm (according to customer demand), low ear making rate, good deep drawing performance, welding performance and surface quality. Infiltrated with a small amount of manganese, the aluminum strip has the properties of high strength, corrosion resistance, high temperature resistance, radiation resistance and fast heat dissipation, which can fully meet the standards required by the end materials of mobile phone battery shells.

#### High reputation

It is a supplier of many large enterprises in the field of mobile phone battery shell materials. The company's customers include the largest lithium-ion battery aluminum shell manufacturer in China. At the same time, in terms of the supply of aluminum sheets for automotive power battery casings, our company also maintains long-term strategic partnerships with major auto parts suppliers.

Mingtai Aluminum (stock code 601677) was founded in 1997. After 20 years of development, it has become one of the largest flat rolling enterprises of aluminum sheet, strip and foil in China. 3003 aluminum strips for power battery cases, high elongation, high tensile properties and good appearance quality are welcomed by major battery factories. Mingtai Aluminum is committed to becoming a comprehensive supplier of aluminum for the battery industry.

### Technical Parameters

Alloy	Temper	Thickness(mm)	Width and Length(mm)	Typical Application
5182	O	1.0	Customized	Battery cover material
5083	O	1.0—2.0	Customized	Separator material (battery side plate)
3003	O	0.6—3.0	Customized	Power

				battery shell material
3003	H14	0.6	Customized	Mobile phone battery shell material
3003	O/H14	1.0-3.0	Customized	Materials for battery water cooling plate
6061	O/T6	1.0-12	Customized	Tray material for power battery