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High-end Aluminum Alloy Parts Solution Provider

Innovative materials Aluminum Alloy 211Z
and
High-precision ultra-flat alu plate HCP 5A83



Design & Service

Customized aluminum alloy casting products

Aluminum alloy structural parts



Products and Services

We are a supplier of high-end aluminum alloy products in China. The high-strength and high-toughness special aluminum alloy 211Z and high-precision ultra-flat aluminum plate 5A83 developed by us can meet any needs of your company for high-end aluminum alloy products. We can use our own products and technology to cast various types of high-end aluminum alloy products according to customer requirements, and can also manufacture and process various aluminum alloy parts. We can be your excellent supplier of high-end aluminum alloy parts

The services we provide are as follows:

- Casting, Injection, Foaming mold design and development
- Machining of cast products and parts
- Parts processing based on precision aluminum plate
- Processing of medium and large aluminum parts



Our Competitive Advantage

- ✓ High quality – attractive prices
- ✓ Competent contacts in Germany and China
- ✓ Own high-performance raw materials and products
- ✓ Detailed DFM before mold design, weekly project stage updates
- ✓ Sampling under production conditions
- ✓ German management – Chinese flexibility

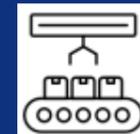
Design & Service



sufficient raw materials



excellent product quality



efficient production



stable and reliable process



efficient communication



rich industry experience



**High-strength and toughness
High-temperature-resistant
Aluminum alloys 211Z**

Aluminum alloy 211Z is a brand-new 2-series cast aluminum alloy material, which has a tensile strength close to that of 7-series forged aluminum alloy, and can maintain its strength above 300 MPa at 250 degrees Celsius.

Aluminum alloy 221Z has a wide range of applications. It can replace cast iron parts and meet the requirements of lightweight design. It can replace 7-series forged aluminum alloy parts. Through casting, while ensuring high strength, it can solve the problem of complex parts shape, which can greatly reduce the cost of parts.

innovative
Aluminium Alloy
211Z

Aluminium Alloy 211Z

Typical Mechanical Properties	
Tensile Strength R_m	450 - 540 MPa (N/mm ²)
Yield Strength $R_p 0.2$	370 - 450 MPa (N/mm ²)
Elongation A5	6 ~ 12 %
Brinell Hardness	140 ~ 160 HB

Our Capabilities:

- Casting design and development
- Mold design and development
- Large scale machining capability
- Casting capacity of aluminum alloy products with an annual output of 200,000 pieces



Customer Service

- Direct contacts in Germany and China
- Direct communication in German possible
- Technical advice and support
- Construction meeting in video conference possible



Project Development Process





High Precision
Ultra Flat
Aluminum Plate
HCP 5A83

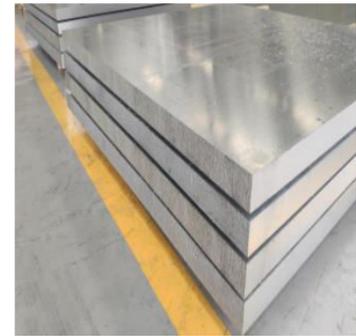
Our precision ultra flat plate HCP 5A83 has an excellent quality. Currently its market share in China's ultra-precision aluminum plate industry is nearly 70%. It has been used in many areas, e.g. B. in new energy vehicles, optical instruments, automation equipment, medical equipment, mold making, etc., and has also been used in some large international manufacturing companies.

The HCP 5A83 aluminum plate has good thermal shock resistance, and the hardness remains almost unchanged after being held at a high temperature of 300 degrees Celsius for 2 hours. Excellent corrosion resistance and welding performance. Ultra-low residual stress and isotropic homogeneity solve the problem of machining deformation. Besides regular size, we can customize the size of aluminum plate products according to customer needs.

The quality of our products has reached a world-class level, which can be compared with the related products from Alimex, AMAG, Constelium, Gleich.

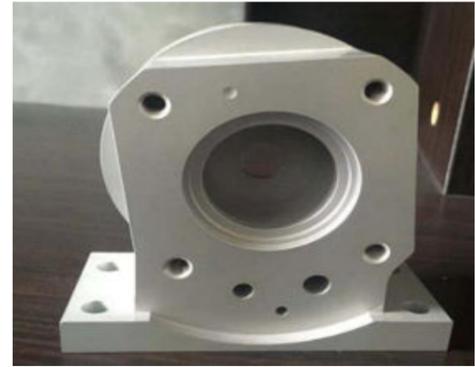
As a leader in precision aluminum plate industry, we also supply various aluminum plate finished products to our customers. According to customer requirements, we can complete precision aluminum plate parts design and machining, and provide customers with perfect final products directly. We can be your excellent supplier.

Chemical Composition	EN AW-5083 0 · AlMg4.5Mn
Material Properties	
Machinability	excellent
Weldability	very good
Anodising Properties	good
Typical Mechanical Properties	
Tensile Strength R _m	270-310 MPa (N/mm ²)
Yield Strength R _p 0.2	110-130 MPa (N/mm ²)
Elongation A5	≥12%
Brinell Hardness	70 ~ 75 HB
Dimensional Stability	very good
Typical Physical Properties	
Density	2.66 g/cm ³
Electrical Conductivity	16-19 MS/m (m/Ω mm ²)
Modulus of Elasticity	~70,000 N/mm ²
Thermal Conductivity	110-140 W/(mK)
Coefficient of Thermal Expansion	24.2 * 10 ⁻⁶ /K
Corrosion Resistance	
normal atmosphere	very good
industry, sea water	good
Tolerances	
Tolerance in Thickness(5~100 mm)	+/- 0.07 mm
Flatness	5~12 mm thickness ≤ 0.3 mm >12~100 mm thickness ≤ 0.12 mm
Surface Finish Ra	≤ 0.4 μm
Tolerance in Length and Width for Plates	0/+10 mm
Thickness Range & Sizes Plates and pre-cut sizes are available in the following dimensions	
Thickness 5 ~ 100 mm	standard. Width x Length
≥5 mm	1520 mm x 3020 mm
	max. Width x Length
≥5 mm	2000 mm x 4000 mm
Customerized Size on Demand	





Development of 211Z Casting Parts



HCP 5A83 Precision Aluplate Construction Parts

