



Marine Grade Aluminum 6061 - Haomei Aluminium

Marine grade aluminum 6061 is generally in the form of aluminum plates or aluminum coils. 6061 aluminum is a widely used alloy with large output. When 6061 aluminum is used as 6061 aluminum marine use, it can be used for masts and other marine accessories. It is an Al-Mg-Si alloy with a Si content of 0.4 to 0.8 and a Mg content of 0.8 to 1.2. It has the characteristics of good processing performance, high toughness and no deformation after processing. In addition, 6061 aluminum has good corrosion resistance, easy coating and good oxidation effect. It can still maintain good operability after annealing, especially without stress corrosion cracking tendency. It has excellent weldability and good cold workability.

6061 aluminum plate is low density and lighter than other materials. Therefore, the overall weight of the ship made of 6061 aluminum plate is 15%-20% lighter than that of the ship made of steel plate. In this way, the fuel consumption will be greatly reduced and the speed will be faster. The 6 series alloy has good corrosion resistance. Ships are exposed to the sun and wind, and they are moored in water or sea all year round. The paint will definitely fall off. Using 6061 aluminum can reduce the number of maintenance. 6061 aluminum marine use has good welding performance, the parts that fall off can be welded easily, and the safety can also be guaranteed.

6061 marine grade aluminum plate is one of the advantages of Haomei aluminum products, research and development of the "1+1" hot rolling production line is specifically for the aluminum plate. 6061 aluminum plate processing technology of Haomei aluminum production far more than counterparts, the thinnest can produce 0.6mm, the aluminum oxide has a good effect after processing, small deformation, uniform quenching and other advantages. At the same time, the 6061 aluminum plate of Haomei aluminum industry with its excellent quenching performance, superior corrosion resistance and other advantages, has been widely used in the field of automobile, aerospace, shipbuilding and other fields.

Specification of Marine Grade Aluminum 6061:

Alloy	Temper	Thickness (mm)	Width (mm)	Length (mm)	Final Usage
6061 aluminum	O, T4, T6, T651	0.3-600	500-2600	500-16000	Mobile phone shell, mobile phone board, card slot, aerospace, automobile

Marine Grade Aluminium 6061 Chemical Composition

Cu	Mg	Mn	Fe	Si	Zn	Ti	Cr	Zr	Al
0.15~0.40	0.8~1.2	0.15	0.70	0.40~0.8	0.25	0.15	0.04~0.35	0.15	Remainder

Mechanical Properties for Marine Grade Aluminum Plate 6061

Alloy	Tensile Strength σ_b (Mpa)	Yield Strength $\sigma_{0.2}$ (Mpa)	Elongation(δ_5 %)
6061	Min.310	Min.276	Min.14

Advantages of Haomei 6061 Marine Grade Aluminum Alloy:

1, 6061 aluminum plate sheet has excellent processing performance, good corrosion resistance, high toughness and deformation after processing, easy coating, good oxidation effect and other excellent features, after annealing can still maintain good operability. In particular, the tendency of non stress corrosion cracking, good weldability, good cold workability.

2, Advanced equipment 3000T tensile machine, according to process requirements, 1.0%--3.0% on the plate within the stipulated time of permanent tensile plastic deformation, the elastic deformation to plastic deformation, to eliminate the residual stress after quenching, ensure product deformation in machining

Other key properties of Aluminum 6061 include:

Good surface finish

Ability to be anodized

Easy of weldability and brazability

Resistance to corrosion from seawater and atmospheric conditions

Suitable for hot forging

Readily available

Excellent processing performance,

High toughness and no deformation after processing,

Easy to paint film

6061 Aluminum Application in Ship building:

rib plate

Separating panel

ship deck

deck girder

deck long

