



Marine Grade Aluminium 5083 - Haomei Aluminium

Marine Grade aluminium 5083 plate sheet belong to Al-Mg-Si alloy, the use has wide range in ship and boat processing. The application of 5083 aluminum plate belongs to the high-end field of aluminum processing industry. According to the market development of 5083 aluminum plate marine grade and the demand of the light weight, the production of aluminum alloy sheet was increased, and the production process of aluminum alloy sheet was strictly controlled by 5083 aluminum alloy. Sure, the alloy casting process optimization, homogenization heat treatment and rolling, the 5083 marine grade aluminum performance with foreign materials, to meet user requirements, especially to meet the increasing demand of aluminum processing, rail transportation, high-grade car complex parts such as marine, very broad prospects for application.

Marine grade aluminium 5083 sheet plate has passed CCS China Classification Society certification and other society certification. Marine grade aluminium certification is a ship inspection agency that determines the ship in accordance with the classification requirements of certain standards combined with the structure and technical status of the ship A certificate issued by the ship's class.

Lightweight in marine grade aluminium 5083, the advantages of weight reduction and fuel consumption are also continued. First, its small specific gravity can reduce the weight of the ship. Second, the capacity of the engine can be reduced while increasing the speed. Third, combining the above two points, fuel consumption will also be reduced.

5083 Marine Grade Aluminum Plate Properties and Specification

Alloy Series	Typical Temper	Thickness(MM)	Width(MM)	Length(MM)
5083 Aluminum Plate Sheet	H111, H112, H116, H321	12~260	1000~3800	2000-38000

Marine Grade Aluminum 5083 alloy Chemical Composition

Cu	Mg	Mn	Fe	Si	Zn	Ti	Cr	Other	Al
0.1	4.0~4.9	0.40~1.0	0.4	0.4	0.25	0.15	0.05~0.25	0.15	Remainder

5083 Marine Aluminum Plate Application

Alloy	Products classification	Typical application
5083 H112/H321	plate	Bed plate and board of railway carriage ,welded parts of ship.tanker, oil storage tank .Welding carriage plate

1. Inner and outer siding of railway Passenger ,
2. Bed plate and board of railway carriage ,
3. welded parts of ship, tanker, oil storage tank .
4. Welding carriage plate


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Mechanical Properties of Marine Grade Aluminum 5083

Alloy	Temper	Yield Strength (Rm/Mpa)	Tensile Strength Rm(Mpa)	Elongation (%) (L0=50 mm)	Bend Performance (180°C)	Standard
5083	O	≥145	290~370	≥17	1.5t(t≤6) 4t(>6)	EN14286-2007
5083	H111	124~200	276~351	≥16	-	ASME(2010)SB209

Performance Advantage of Marine Grade Aluminium 5083

- 1, 5083 aluminum plate sheet has low density, high strength, marine aluminum, lightweight aluminum for automotive, aerospace aluminum, aluminum tank for special;
- 2, 5083 aluminum plate sheet has corrosion resistant, durable, economic and environmental protection;
- 3, 5083 aluminum plate sheet has the arc welding performance is good, the surface is beautiful after anodizing;
- 4, China approval certificate and Norway Veritas certification for Haomei quality escort ship;
- 5, 5083 aluminum plate sheet has no oil, no aluminum surface waves, no scratches, no roller, uniform cutting edges and burr;

