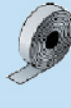
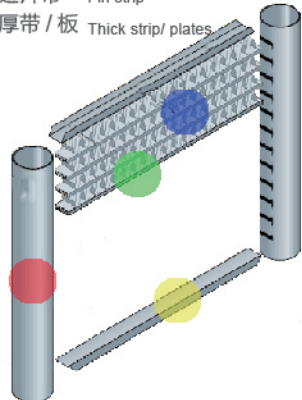


Aluminum alloy used in Heat Transfer Material 热传输用铝合金

· 我们的产品 Our products

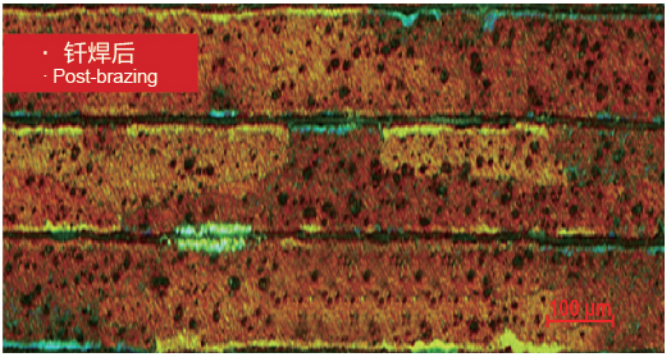
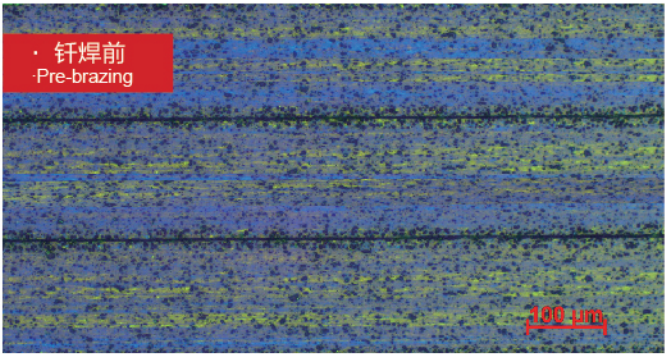
	轧制工艺 Rolling process	焊接工艺 Welding process	挤压工艺 Extrusion process	后期工艺 Post process	产品（装配 & 焊接） Products (assembly & welding)
主板 Mainboard	复合带 Clad strip 	原板 Primitive plate -隔板 Bulkhead -端盖 End caps 	圆管-卷 Circular tube Roll 圆管-定尺 Circular tube Fixed scale 	-----	■ 主板 ■ 管 ■ 翅片带 ■ 厚带 / 板 Mainboard Tube Fin strip Thick strip/ plates 
管 Tube	复合带 Clad strip 	平管 Flat tube -定尺 Fixed scale 	圆管 & 平管-卷 Circular tube & flat tube Co. 平管-定尺 Flat tube Fixed scale 	-----	
翅片带 Fin	复合带 & 非复合带 Clad & unclad strip 	-----	-----	成型 & 剪切 Forming & slitting 	
厚带 / 板 Thick strip/ plate	复合带 Clad strip 	-----	-----	冲压 剪切 Stamping Slitting 	

· 典型产品概况 Overview of main products

· 化学成分（重量百分比%） Chemical components (weight %)

牌号 (Alloy)	AA	Si	Fe	Cu	Mn	Mg	Zn
D301	3003	0.6	0.7	0.05-0.2	1-1.5	0.05	0.1
D504	6A02	0.5-1.2	0.5	0.2-0.6	0.1-0.35	0.45-0.9	0.2
D307	3003Mod	0.5	0.5	0.25-0.5	1.0-2.0	0.03	--
D304	3003Mod	0.6-0.7	0.2-0.4	≤0.1	1.6-1.75	≤0.02	1.3-1.7

金相照片 Metallograph



- 翅片合金 F416 厚度 0.08mm Fin alloy F416, with the thickness of 0.08mm
- 钎焊前晶粒细小, 模拟钎焊后获得合适的晶粒 Before brazing, grains are tiny, and obtain suitable grains after the simulation brazing

机械性能 Mechanical properties

钎焊前 Pre-brazing

牌号 Alloy	厚度 (mm) Gauge	状态 State	Rp0.2 [MPa] Min.	Rm [MPa]	A50 [%] Min.
D301	0.25-0.4	H14	125	145-185	2
	0.4-2.5	O	35	95-135	20
D504	0.5-3.0	O	Max.80	Max.150	20
D307	0.2-0.4	H24	140	150-205	8
D304	0.06-0.2	H14	160	180-220	0.5

钎焊后 Post-brazing

牌号 Alloy	Rp0.2 [MPa] Min.	Rm [MPa]
D301	40	110
	40	110
D504	80*	175*
D307	50	140
D304	50	130

* 表示钎焊后经过 8 天时效硬化之后

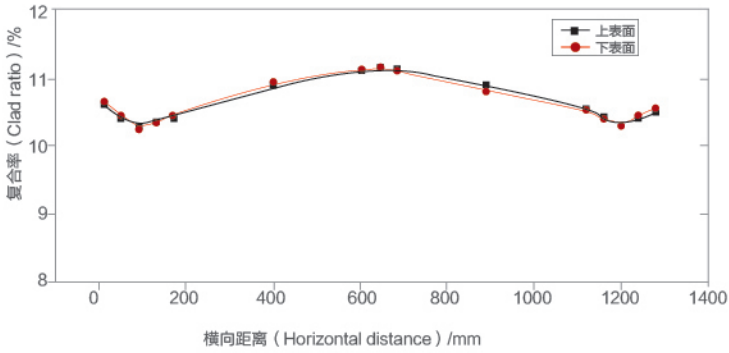
抗塌陷值 Anti-sagging Rate

批次 Lot No.						
位置	①	②	③	④	⑤	⑥
左	25	22	26	24	23	25
中	26	25	27	25	24	26
右	23	24	23	24	23	22

大力神工艺能力 Process capability of DALISHEN

	卷 coil	板 sheet
厚度范围 Gauge range	0.04---4.0mm	0.4---4.0mm
宽度范围 Width range	8-----1500mm	450----1500mm
长度 Length		Max.12000mm
规格 Specifications	Subject to DIN;EN;ASME	
内径 (ID)	150;200;250;300;400;500mm	
最大外径 (OD)	2000mm	
复合层数 Cladding layer(s)	单层, 双层, 不对称双层, 多层 Number of cladding layers (Single layer, double layers, asymmetrical brazing clad and multi-layers)	
复合率 Clad ratio	4% up to 30%	
复合率公差 Tolerance of clad ratio	cladding thickness of 4% - 6%: +/-1.5%	
	cladding thickness of 6% - 12%: +/-2%	
	cladding thickness of 12% - 16%: +/-2.5%	
	cladding thickness of 16% - 20%: +/-3%	
	cladding thickness of 20% - 30%: +/-4%	

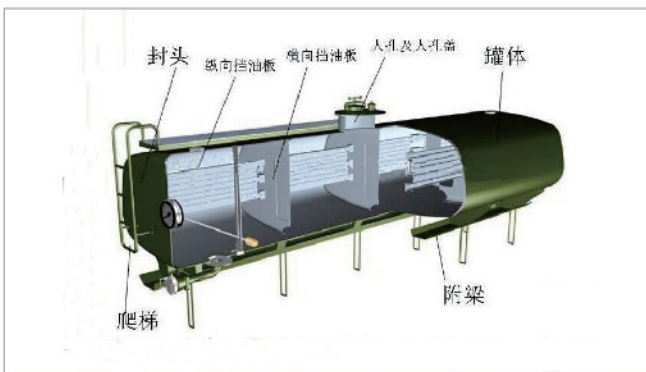
包覆率 Cladding rate



Aluminum alloy used in automobile manufacturing

汽车制造用铝合金

- 用途: 槽罐车板、冷藏车板、集装箱板、方舱车身板、车门、翼子板、地板、车身骨架、覆盖件等
- 产品特性: 大规格、中强度、高表面、高尺寸精度、耐腐蚀、易焊接、易成型、无低温脆性、可回收
- Applications: Tank truck plate, refrigerator plate, container board, square cabin body panel, car door, fender, floor, body frame, covering parts, etc
- Product features: Large scale, moderate strength, high surface, high dimensional accuracy, anti-corrosion, easy to welding, easy forming, without low temperature brittleness, and recyclable



· 槽罐车用宽幅铝板材产品参数 The parameters of wide width aluminum plates used in the tank truck

· 合金成分 (wt%) Alloy component

合金 Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
5083	≤0.40	≤0.40	≤0.10	0.40-1.00	4.00-4.90	0.05-0.25	≤0.25	≤0.15	余量 Remainder
5182	≤0.20	≤0.35	≤0.15	0.20-0.50	4.00-5.00	≤0.10	≤0.25	≤0.10	
5454	≤0.25	≤0.40	≤0.10	0.50-1.00	2.40-3.00	0.05-0.20	≤0.25	≤0.20	

· 规格 Specifications

合金 Alloy	厚度(mm) Thicknesses	宽度(mm) Width	长度(mm) Length
5083	3-20	薄 Thin: 1000-2400 厚: Thick 1000-2800	2000-12600
5182			
5454			

· 力学性能 Mechanical Properties

合金 Alloy	状态 State	屈服强度Rp (Mpa) Yield strength	抗拉强度Rp (Mpa) Tensile strength	延伸率 A(%) Percentage of elongation
5183	O/H111	≥125	270-350	≥15
	H112	≥125	≥275	≥12
5182	O/H111	≥110	255-315	≥16
5454	O/H111	≥85	215-275	≥17
	H112	≥125	≥220	≥8
	H32	≥180	250-305	≥8

· 我们是高合金化、大规格、高尺寸精度、高均匀性与稳定性及热传输铝板带材料专业制造商 ·

· We are professional manufacturer in aluminum plate / strip material with high alloying, large dimension, high dimensional accuracy, high uniformity, stability and thermal transfer ·

· 集装箱、冷藏车用铝合金带材 Aluminum alloy strip used for the container and refrigerator

合金 Alloy	状态 Temper	规格 (mm) Specifications		
5052/5005	H12/H14/H18 H22/H24/H32/H36	厚度 Thickness	宽度 Width	长度 Length
		0.6-1.2	1000-2575	1000-6000 卷: 定制长度 coil: Customized length

· 军用铝合金方舱车铝材合金带材 Aluminum alloy strip used for military aluminum alloy square cabin truck

合金 Alloy	状态 Temper	规格 (mm) Specifications		
5052	H34/H32	厚度 Thickness	宽度 Width	长度 Length
		1.0-1.5	2200-2400	定制长度 Custom length

5052合金板材主要用于汽车箱体外板, 客户加工流程为:

5052 alloy plates are mainly used for the outer shell automobile body, and the client processing procedures are as follows:

长度定尺剪切
Sizing and shearing for length

表面打磨
Surface polishing

表面氧化处理
Surface oxidation treatment

喷涂、贴膜 (外板喷涂, 内板贴聚酯泡沫)
Spraying, filming (spraying for outer shell and polyester foam for inner plate)



· 垂直扩展方舱车 Vertical scaling square cabin truck



· 铝制冷藏车 Aluminum refrigerator

Aluminum alloy used in aerospace

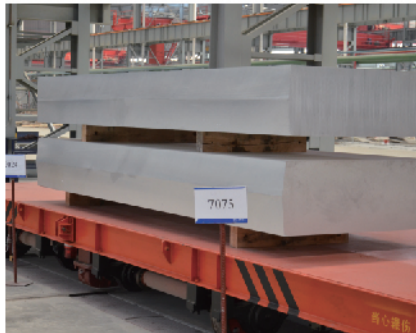
航空航天用铝合金

公司与航空材料研究所开展联盟，依托较为完备的工艺设备，可进行2xxx、7xxx合金板带材从熔铸、热轧、冷轧到后续精整、固溶时效处理、预拉伸、探伤、精确定尺等加工，是航空航天用铝板带生产和研发的高科技企业，产品质量可满足ASTM、EN、GB等标准。

· 产品特性：高强度、高韧性、高耐腐蚀性、高损伤容限、低残余应力

The company and institute of aeronautical materials work together as alliance, based on relatively perfect processing equipment, to process alloy plate strips of 2xxx and 7xxx from casting and hot rolling to subsequent finishing, solid solution-aging treatment, pre-stretching, flaw detection, accurate cutting, etc. As a high-tech enterprise in production, research and development of aluminum plate strip used in aerospace, our product quality meets the standards of ASTM, EN and GB, etc.

· Product Features: High strength, high toughness, high anti-corrosion, high damage tolerance and low residual stress



典型合金 Typical alloy	2024、2219、2A11、2A12、5A05、5083、5A06、7075、7050、7055、7085等 2024, 2219, 2A11, 2A12, 5A05, 5083, 5A06, 7075, 7050, 7055, 7085 and so on
典型状态 Typical temper	O、T4、T6、T651、T73、T74、T7651、T851、T7751等 O, T4, T6, T651, T73, T74, T7651, T851, T7751 and so on
规格范围 (mm) Specifications scope	厚×宽×长: (0.5~200)×(500~3100)×(500~20000)(mm) TH * W* L (0.5-200)×(500-3100)×(500-20000)(mm)
产品用途 Product applications	飞机蒙皮、隔框、长梁、珩条以及运载火箭/宇宙飞行器的结构件、燃料箱、助燃剂箱等 The coverings, bulkhead, long beam, and honing strips of aircrafts, as well as structural parts, fuel tank and accelerator tank of launch vehicles /spacecrafts

· 典型合金化学成分（wt%） Typical Alloy Chemical Component

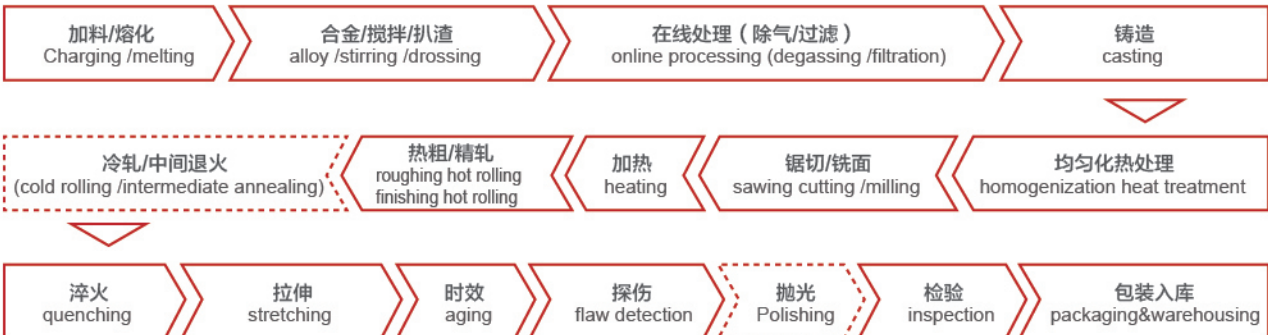
合金 Alloys	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Al
2A12	≤0.50	≤0.50	3.8-4.9	0.30-0.90	1.2-1.8	-	0.10	0.30	≤0.15	余量 Remainder
7075	≤0.40	≤0.50	1.2-2.0	≤0.30	2.10-2.90	0.18-0.28	-	5.1-6.1	≤0.2	

· 典型航空航天用铝合金板力学性能 Mechanical Properties of Typical Aluminum Alloy Plates Used in Aerospace

合金 Alloys	状态 Temper	厚度 (mm) Thicknesses	屈服强度Rp (Mpa) Yield strength Rp	拉伸强度Rm (Mpa) Tensile strength Rm	延伸率 (%) Percentage elongation
2A12	0	0.3-3.0	-	≤235	≥12
		>3.0-10.0	-		≥11
	T4	0.3-1.5	≥290	≥440	≥13
		>1.5-6.0			≥11
		>6.0-10.0			≥10
	T0	1.5-3.0	≥360	≥475	≥10
7075	0	0.5-10.0	≤145	≤275	≥10
	T651	0.5-1.0	≥460	≥525	≥7
		>1.0-3.2	≥470	≥540	≥8
		>3.2-6.3	≥475	≥540	≥8

· 7075 T651典型工艺线路（冷轧/中间退火为虚线，其他为实线）

Typical process routing of 7075 T651 (a dotted line for cold rolling/ intermediate annealing, a solid line for others)



Rail Transportation Aluminum Alloy 轨道交通用铝合金

- 用途: 运煤敞车、运粮车、运油车、高铁/动车/地铁车头、隔音板、车厢板、夹层材料、供电设备、装配件、车体结构、内部装饰等
- 产品特性: 大规格、强度适中、弹性模量小、高尺寸精度、性能稳定、易加工成型、可回收
- Applications: Coal hopper car, grain carrier, oil tank truck, the headstocks of high-speed rail/ CRH/ subway, acoustic panel, carriage plates, sandwich material, power supply unit, assembly parts, car body structure, interior decorations and so on
- Product Features: Large dimension, proper strength, small elastic modulus, high dimensional accuracy, stable performance, easy to welding, recyclable



· 运煤敞车用宽幅典型铝合金板材 Wide aluminum alloy plates used in coal hopper cars

合金 Alloys	状态 Temper	规格 (mm) Specifications		
5083	O/H321	厚度 Thicknesses	宽度 Width	长度 Length
		6-8	1120-2420	3102-10612

· 高铁、动车用典型铝合金板材 Aluminum alloy plates used in high-speed rails and CRH

合金 Alloys	状态 Temper	规格 (mm) Specifications		
		厚度 Thicknesses	宽度 Width	长度 Length
5052	O/H111/H112/H14/H24/H32	0.5-150	1000-2100	1600-4000
5083	O/H111/H321/H12	1.2-140	1000-2500	1600-3400
5754	H111/H112	6-25	1250	2500
6082	T6/T651	4-30	1020-1800	2020-3100

· 花纹铝板主要产品有1xxx、3xxx、5xxx、6xxx系铝合金板材, 起防滑作用, 应用于汽车制造、轨道交通、船舶等防滑用领域。

· The main products of aluminum embossed sheets consist of 1XXX, 3XXX, 5XXX, 6XXX series aluminum alloy plates with skid resistance, and are mainly used in antiskid fields including automobile manufacturing, rail transit and shipping.

合金 Alloys	典型合金 Typical alloy	材料状态 Material temper	厚度(mm)Thicknesses	宽度(mm)Width	长度(mm)Length
1xxx	1060	H*2、H*4、T4、T6	0.8-7.0	1000-1350	2000-13000
3xxx	3003				
5xxx	5052、5754				
6xxx	6061、6063、6082				

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· We are professional manufacturer in aluminum plate / strip material with high alloying, large dimension, high dimensional accuracy, high uniformity, stability and thermal transfer ·



· **5083铝合金板**是非热处理强化合金中强度最高、并兼具优异的耐蚀性和焊接性铝合金板材之一。

· Aluminum alloy plate 5083 is one of the highest strength among non-heat treatment alloys, with excellent anti-corrosion and weldability.

· **6082铝合金板**是能够热处理强化的铝合金板材，具有中等强度和良好的焊接性能、耐腐蚀性。

· Aluminum alloy plate 6082 is the one which can be heat treated and be strengthened, with moderate strength and good weldability, as well as anti-corrosion.

· 化学成分 Chemical Component (WT%)

合金 Alloys	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be	其他 Else		Al
										单个 Single	合计 Total	
5083	≤0.15	≤0.35	≤0.10	0.45~	4.30~	0.05~	≤0.20	≤0.10	0.0005~ ~0.003	0.05	0.15	余量 Remainder
				0.80	4.70	0.20						
6082	0.7~1.3	0.50	0.10	0.4~1.0	0.6~1.2	0.25	0.20	0.10		0.05	0.15	余量 Remainder

· 长度允许偏差 Length Allowable Deviation

标称长度 (mm) Nominal length mm	≤4000	>4000
长度允许偏差 (mm) Length allowable deviation mm	+ 4 - 0	+ 6 - 0

· 板材两对角线的长度差 < 8mm Length difference of plate in two diagonals < 8mm

· 板材的不平度允许偏差 Allowable Deviation of Plate Unevenness

标称厚度 (mm) Nominal thickness	纵向不平度d/L Longitudinal Unevenness	横向不平度d/W Horizontal Unevenness	局部不平度d/R Regional Unevenness
6.0	≤0.3%	≤0.4%	≤0.35%
8.0	≤0.2%	≤0.4%	≤0.3%

注：d为波高，L为板材长度，W为板材宽度，R为任意弦长。
Note: d is the wave height, L is the plate length, W is plate width, and R is arbitrary chord length.

· 板材的力学性能 Mechanical Properties of Plates

合金 Alloys	状态 Temper	拉伸强度Rm (Mpa) Tensile strength Rm	屈服强度Rp0.2 (Mpa) Yield strength Rp0.2	延伸率 (%) Percentage elongation
5083	H321	≥305	≥215	≥12
5083	O	275~350	≥125	≥16
6082	T6/T651	≥300	≥255	≥9



Shipbuilding Aluminum Alloy 船舶制造用铝合金

- 合金牌号: 5083、5A05、5A06、5754、5052、5383、5A03、5086等
- 状态: O、H111、H112、H116、H24、H32、H321
- 尺寸规格: 厚度 (1.5~120) x 宽度 (1000~3100) x 长度 (1000~13000) mm
- 用途: 铝材是快速渡船、LNG球罐型储液罐、水翼艇、近海工作船、游艇等高速船舶设计者的首选材料, 广泛应用于船侧、船底外板、舷窗、船容器的顶板和侧板等。
- 产品特性: 宽幅长规格、耐腐蚀、弹性模量小、易焊接、易加工成型、无低温脆性、非磁性
- Alloy Grade: 5083, 5 A05, 5 A06, 5754, 5052, 5383, 5 A03, 5086, etc
- Temper: O, H111, H112, H116, H24, H32, H321
- Dimensions: T (1.5 ~ 120) x W(1000 ~ 3100) x L(1000 ~ 13000) mm
- Applications: Aluminum is the material of first selection of designers in high-speed ship, such as express ferries, LNG spherical tank type fluid reservoirs, hydrofoils, offshore working ships and yachts, and is widely used to shipboards, bottom plating, portholes, carrier plates and side plates of ship containers, etc.
- Product Features: Long width, anti-corrosion, small elastic modulus, easy to welding, easy processing, without low temperature brittleness as well as non-magnetic



· 铝合金板材在船舶上的应用 Applications of aluminum alloy plates in shipping

合金 Alloys	状态 Temper	特点 Features	主要用途 Main usage
5052	O/ H14/H34	中等强度、耐腐蚀性和成型性好, 有较高的疲劳强度 Moderate strength, good anti-corrosion and formability, relatively high fatigue strength	上部结构、辅助结构、小船船体 Upper structures, auxiliary structures and boats' hulls
5083	O/H32/H116	典型的焊接用合金, 在非加热处理型合金中强度最高, 焊接性、耐腐蚀性和低温型良好 Typical welding alloy, with the highest strength among non-heat treated alloys, good weldability and anti-corrosion and low temperature performance	船体主要结构, LNG 球罐 Main structure of hulls, LNG spherical tank
5086	H116	焊接性、耐腐蚀性与 5083 相同 Weldability and anti-corrosion are same with 5083	船体主要结构 Main structure of hulls
5454	O/H32	强度比 5052 高 22%, 抗腐蚀性和焊接性良好, 成形性一般 The strength is 22% higher than 5052; with good anti-corrosion as well as weldability; general formability.	船体结构, 压力容器管道等 Structure of hulls, pipes of pressure vessels, etc.
5456	O/H32	类似 5083, 但强度较高, 有应力腐蚀敏感性 Similar with 5083, but with relatively higher strength and the stress corrosion sensitivity	船底和甲板 Hull bottom and decks
1050/1020	H112/H12/H24	强度低, 加工性、焊接性和耐腐蚀性好, 表面处理性高 Low strength, good processability, weldability and anti-corrosion, and high surface finishing	内装 Interior decoration
3003/3203	O/ H112/H12	强度比 1100 高 10%, 成形性、焊接性和耐腐蚀性好 The strength is 10% higher than 1100, with good formability, weldability and anti-corrosion	内装, 液化石油气罐的顶板和侧板 Interior decoration, and the carrier plates and side plates of liquefied petroleum gas (LPG) tanks

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· We are professional manufacturer in aluminum plate / strip material with high alloying, large dimension, high dimensional accuracy, high uniformity, stability and thermal transfer ·



· 使用铝合金材料的船舶种类 Types of Shipping Using Aluminum Alloy Material

分类 Classification	船舶名称 Name of Shipping
运输船 Transport ship	客船（定期航线船、游艇、远洋客轮、游览船）、货船（LNG、油船、邮船、冷藏船、集装箱船）、渡轮、驳船 Passenger ships (regular line ships, yachts, ocean liners and excursion boats), cargo ships (LNGs, oil tankers, mail liners, refrigerated ships and container ships), ferries and barges
港务船 Harbor boat	巡视船、渔业管理船、海关船、检疫船、消防船、助航工作船 Patrol boats, fishery management ships, customs boats, quarantine vessels, fire-fighting vessels and navaid working ships
渔船 Fishing-boats	网类渔船、钓类渔船、渔业调查船、渔业加工船、捕鲸船 Net fishing-boats, fishing boats, fishery research vessels, fishery factory ships and whaler
工程船 Working ships	布设船、救捞船、起重船 Laying ships, salvage ships and floating cranes
海洋开发船 Ocean development ship	海洋研究船、海洋探测船、海洋采矿船、科学考察船 Ocean research ships, ocean survey ships, ocean mining ships and scientific research ships
军用舰艇 Military naval vessels	水翼导弹巡逻艇、高速运输船、濒海战斗舰 P.H.M, high-speed transport ships and littoral combat ships
高速船艇 High-speed boats	水翼艇、气垫船、飞翼艇、滑行艇 Hydrofoils, hovercrafts, flying wing boats and planing boats
其他 Else	帆船、赛艇等 Sailboats, racing boats, etc.

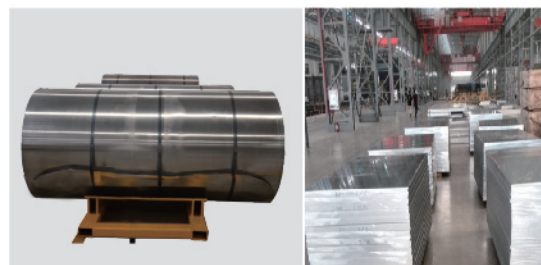
· 船体用典型铝合金板材 Typical Aluminum Alloy Plates Used to Hulls

用途 Applications	合金 Alloys
船侧 / 船底 / 外板 Shipboards/ hull bottoms/ shell plating	5083 / 5080 / 5456 / 5052
龙骨 / 肋骨 Keels/ frames	5083
助板 / 隔壁 Ribbed plates/ bulkhead	5083 / 6061
发动机台座 Pedestals of engines	5083
甲板 Decks	5083 / 5052 / 5086 / 5454 / 6456/7039
操舵室 Rudder house	5083 / 5052 / 6N01
烟囱 Stack	5083 / 5052
舷窗 Porthole	5083 / 5052 / 6063
舷墙 Bulwark	5083
舷梯 Gangway ladder	5083 / 5052 / 6063 / 6061
容器顶板和侧板 Carrier plate and side plates of vessels	3003 / 3004 / 5052
LNG船球罐型(MOSS) LNG ship spherical tank type	5083

Product catalog of medium-thick plates in aluminum alloy 铝合金中厚板产品目录

中厚板产品主要应用于航空航天、轨道交通、公路运输、船舶、能源、工模具等领域，包括热轧中厚板、热精轧合金板、退火合金板、淬火合金板和拉伸中厚板等。

Medium-thick plate products are mainly used to many fields like aerospace industry, rail transportation, road transportation, shipping, energy, tool and mould, which include hot-rolled medium-thick plates, finishing hot rolling alloy plates, annealing alloy plates, quenching alloy plates, stretching medium-thick plates, etc.



· 幅宽2530mm铝卷

· 热轧中厚板

· 热轧中厚板 Hot-rolled medium-thick plate

合金系 Alloy series	典型合金 Typical alloy	典型状态 Typical temper	规格 (mm) Specifications		
			厚度 Thicknesses	宽度 Width	长度 Length
3xxx/5xxx	3003	F/H112	20~260	1000~3000	2000~20000
	5052				
	5083				
	5A06				
2xxx/6xxx/7xxx	2024	F/H112	20~200	1000~3000	2000~20000
	6061				
	7020				
	7075				

· 热精轧合金板 Finishing hot rolling alloy plates

合金系 Alloy series	典型合金 Typical alloy	典型状态 Typical temper	规格 (mm) Specifications		
			厚度 Thicknesses	宽度 Width	长度 Length
3xxx/5xxx	3003/5052	F/H112	1.0~20	2000~2600	2000~13000
	5754/5182				
	5083/5086				
2xxx/6xxx/7xxx	2024	F/H112	1.0~20	2000~2600	2000~13000
	6061				
	7020				
	7075				

· 退火合金板 Annealing alloy plates

合金系 Alloy series	典型合金 Typical alloy	典型状态 Typical temper	规格 (mm) Specifications		
			厚度 Thicknesses	宽度 Width	长度 Length
3xxx/5xxx	3003	O/H111	1.0~20	1000~2600	2000~13000
	5052/5754				
	5182/5083	0	20~260	1000~3000	2000~20000
	5086/5A06				
2xxx/6xxx/7xxx	2024	0	1.0~20	1000~2600	2000~13000
	6061				
	7020	0	20~200	1000~3000	2000~20000
	7075				

· 淬火合金板 Quenching alloy plates

合金系 Alloy series	典型合金 Typical alloy	典型状态 Typical temper	规格 (mm) Specifications		
			厚度 Thicknesses	宽度 Width	长度 Length
2xxx 6xxx 7xxx	2024/6005A	T4/T6	4~20	1000~2600	2000~13000
	6061/6082				
	7020/7N01		20~200	1000~3000	2000~20000
	7075/7050				

· 拉伸中厚板 Stretching medium-thick plates

合金系 Alloy series	典型合金 Typical alloy	典型状态 Typical temper	规格 (mm) Specifications		
			厚度 Thicknesses	宽度 Width	长度 Length
2xxx 6xxx 7xxx	2017/2024/6061/6082 7020/7N01/7075/7050	T351/T451/T651/T7X51	4~20	1000~2600	2000~13000
			20~200	1000~3800	2000~20000



• 厚度公差与平整度 Thickness tolerance and flatness

规格 (mm) Specifications	5~10 .0	10.0~20.0	20.0~30.0	30.0~500
公差 (mm) Tolerances	±0.2	±0.25	±0.4	0.5-1.2
平直度 (mm/m)Glancing flatness	≤2			

• 中厚板典型产品应用 Application of typical medium-thick plate products

合金系列 Alloy series	典型合金 Typical alloy	应用 Application
1xxx	1060 1100	工业装置与储存容器，罐材等 Industrial units, storage vessels, tank materials, etc.
2xxx	2A12 2024	航空航天器结构件，机械部件，机柜壳体，模具，建筑与交通工具部件等 Structural components of aerospace vehicles, mechanical parts, cabinets bodies, mould, parts of buildings and vehicles, etc.
	2524	机身蒙皮 Fuselage covering
3xxx	3003 3004	化工产品贮存装置，压力容器与管道，建筑用板等 Storage vessels for chemical products, pressure vessels and pipes, building plate, etc.
5xxx	5052 5A02	船舶、车辆钣金件，铁路客车内壁、车厢板，石油、化工工业储藏装置，空分装置，医疗设备等 Shipping, vehicle sheet metal parts, internal and external plates as well as carriage plates of passenger trains, storage units of petroleum and chemical industry, air separation units, medical equipment, etc.
	5754	铁路客车内壁板、底板、车厢板等 Internal and external wallboards, bottom plates, and carriage plates, etc. of passenger trains
	5086	船侧船底外板，隔壁板，甲板等 Bottom plating, bulkhead, and deck, etc. on the shipboard.
	5083	船侧船底外板、隔壁板、甲板，钻井平台，舰艇汽车和飞机板焊接件，铁路客货车内外壁板、车厢板、底板，运煤敞车，罐车，石油化工，储油罐，LNG，制冷设备，压力容器结构件，汽车轮胎模具等 Bottom plating, bulkhead, and deck, etc. on the shipboard; plates weld assemblies of drilling platform, naval vessels, automobiles and aircrafts; internal and external wallboard, carriage plates and bottom plate, etc. of passenger trains; coal hopper cars, tank cars, petrochemical engineering, oil tanks, LNG, refrigeration plants, pressure vessel structural parts, automobile tire molds, etc.
	5A05 5A06	舰船结构，海洋设施，运输槽罐，压力容器，法兰接线板等 Naval ship structures, marine facilities, transport tanks, pressure vessels, and flange connection block, etc.
6xxx	6061 6082	铁路客车内壁板、车厢板，工业模具，自动化机械部件，电子业夹具及承力板，半导体设备部件等 Internal and external wallboard and carriage plates of passenger trains, industrial molds, automated mechanical parts, electronic fixture, loaded plate and semiconductor equipment parts, etc.
	6063	商用车底板，屋顶构件，运输机，运输船等 Bottom plates for commercial vehicles, roof structure, air freighters, and transport ships, etc.
7xxx	7050	雷达结构件，飞机结构件，其它要求强度高、抗腐蚀性强的高应力结构件 Radar structural parts, aircraft structural parts, and other high stress structural parts with high strength structural parts as well as strong anti-corrosion
	7075	航空航天，模具加工，机械部件，工装夹具制造等 Aerospace, mold processing, mechanical equipment, and tooling and fixture manufacturing, etc.
	7021	航空集装箱等器材 Air containers and other equipment