C&N INDUSTRIAL(HUITONG - HONGCHENG)

Aluminium B241 5083 pipe fitting, Aluminium 5083 ELBOW, ELBOW,B241 Aluminium 5083-O Flange,

Commercial	5083
EN	5083

Aluminium alloy 6061 is a medium to high strength heat-treatable alloy with a strength higher than 6005A. It has very good corrosion resistance and very good weldability although reduced strength in the weld zone. It has medium fatigue strength. It has good cold formability in the temper T4, but limited formability in T6 temper. Not suitable for very complex cross sections.

Applications
Alloy 6061 is typically used for heavy duty structures in:
~ Rail coaches
~ Truck frames
~ Ship building
~ Bridges and Military bridges
~ Aerospace applications including helicopter rotor skins
~ Tube
~ Pylons and Towers
~ Transport
~ Boilermaking
~ Motorboats
~ Rivets

CHEMICAL COMPOSITION

BS EN 573-3:2009
Alloy 6061

Element	% Present
Magnesium (Mg)	0.80 - 1.20
Silicon (Si)	0.40 - 0.80
Iron (Fe)	0.0 - 0.70
Copper (Cu)	0.15 - 0.40
Chromium (Cr)	0.04 - 0.35
Zinc (Zn)	0.0 - 0.25
Titanium (Ti)	0.0 - 0.15
Manganese (Mn)	0.0 - 0.15
Others (Total)	0.0 - 0.15
Other (Each)	0.0 - 0.05
Aluminium (Al)	Balance

TEMPER TYPES

The most common temper for 6060 aluminium is:

- T5 - Cooled from an elevated temperature shaping process and artificially aged

- Extrusions

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.70 g/cm³
Melting Point	655 °C
Thermal Expansion	23.4 x10^{-6} /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	209 W/m.K
Electrical Resistivity	54 % IACS
Electrical Resistivity	0.032 x10^{-6} Ω .m

MECHANICAL PROPERTIES

BS EN 755-2:2008
Extrusions
Up to 200mm Dia. & A/F, 5mm WT for Tube and Prof

Property	Value
Proof Stress	240 Min MPa
Tensile Strength	260 Min MPa
Hardness Brinell	95 HB

Related material

we can also produce Alloy 6060 fitting, 6061 flange,6061 fitting,5083 flange,5083 fitting, 5086 pipe fitting and 5086 flange. 6060 fitting, 6063 pipe fitting and 6063 flange.

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C&N INDUSTRIAL(HUITONG - HONGCHENG)

EN755 Aluminum 5083 pipe fitting, Aluminum 5083 ELBOW,
ELBOW,Aluminum B241 5083 Flange,

RAW MATERIAL FROM CHINAALCO , SWA SOUTH WEST ALUMINUM





CHINALCO 中铝集团

PRODUCT QUALITY CERTIFICATE
东北轻合金有限责任公司
Northeast Light Alloy Co.,Ltd.

INSPECTION CERTIFICATE ACCORDING TO EN10204:2004 TYPE 3.1

PMI检验合格

编号(Serial No.) C1905078*01

收货单位 Customer	浙江晟赞铝业有限公司		
品种 Products	合金状态 Alloy Temper	规格, mm Size	批号 Lot No.
铝管	5083-H112	Φ73×7	C1905078
数量 Quantity		重量, kg Weight	合同编号 Contract No.
1 捆		1056	10-0119/123-103
技术标准 Standard	ASME SB241-2017 GB/T 4437.1-2015		

化学成分报告% , Chemical Composition

熔炼号 Cast_no	元素 Element	Si	Fe	Cu	Mn	Mg	Cr	Zn
	标准值 Standard Value	0.40	0.40	0.1	0.40-1.00	4.0-4.9	0.05-0.25	0.25
	实测值 Actual Value	0.05	0.11	0.01	0.54	4.4	0.09	0.01
19050334	元素 Element	Ti				单个杂质Each	杂质总和Total	Al
	标准值 Standard Value	0.15				0.05	0.15	余量
	实测值 Actual Value	0.02				≤0.05	≤0.15	Remainder

组织性能及其它 Structure or Mechanical Property

试样状态 Temper	取样方向 Sampling Direction	抗拉强度Rm(Mpa) Tensile Strength	规定非比例延伸强度Rp0.2(Mpa) Yield Strength(0.2% offset)	断后伸长率A(%) Elongation
H112	纵向	307~318	151~162	17.5~19.1



西南铝 SWA

产品质量证明书
PRODUCT QUALITY CERTIFICATE
INSPECTION CERTIFICATE ACCORDING TO EN 10204/ 3.1

编号 Serial No.: 004982019020000002

订货单位 Customer	浙江晟赞铝业有限公司			合同号 Contract No.	110227750 3118-11-419-1012
产品名称 Product	批号 Lot No.	合金状态 Alloy And Temper	规格(mm) Dimension		精度(级) Precision(Grade)
管材	M400057	5083-O	Φ60.000 * 4		普通级
技术标准 Technique Standard	ASME SB 210-2015 GB/T6893-2010 EN754-1-2016		化学成分符合 Chemical Composition Standard		ASME SB 210-2015 GB/T3190-2008 EN573-3

熔炼号 Melt No.	K250851	化学成分(质量分数)% Chemical Composition						
元素 Element	Si	Fe	Cu	Mn	Mg	Cr	Ni	
标准值 Standard	≤0.40	≤0.40	≤0.10	0.40-1.0	4.0-4.9	0.05-0.25	——	
实测值 Actual	0.04	0.20	0.02	0.84	4.71	0.10	——	
元素 Element	Zn	Ti	Pb	Na	其他 Others		Al	
标准值 Standard	≤0.25	≤0.15	≤0.015	≤0.001	单个Each ≤0.05	合计Total ≤0.15	余量 Remainder	
实测值 Actual	0.01	0.02	0.003	0.0002	<0.05	<0.15		

机械性能 Mechanical Property

技术标准 Technique Standard	取样方向 Sampling Method		Rm/MPa	Rp0.2/MPa	A50/%
ASME SB 210-2015	纵向 Longitudina	标准值 Standard	269-352	≥110	≥14
GB/T6893-2010			270-350	≥110	≥14
EN754-1-2016			270-350	≥110	≥14
实测值Actual			322/323	139/140	21.5/23.0

低倍 Macrostructure	超声波探伤 Ultrasonic	氢含量(ml/100gAl) Hydrogen Content	表面质量 Surface Control
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C&N Industrial Group Limited

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CERTIFICATE OF QUALITY INSPECTION

EN10204 -3.1

Customer Code: CB034

Certificate No.: CB034001P1

Order No.	CB034001	Works No.	001-P1
Article:	Pipe and accessories	According to	ASME B241
Material:	Alu 5083	Condition in Supply	H112

A.Content of the delivery

Item	Quantity (Pcs)	Description	Heat No.
1	6	ALUMINIUM PIPE DN65	H400513
2	4	ALUMINIUM PIPE DN80	H400511

B.Chemical analysis

Heat No.	Si% <0.40	Fe% <0.40	Cu% <0.10	Mn% 0.40~1.00	Mg% 4.00~4.90	Cr% 0.05~0.25	Zn% <0.25	Ti% <0.15	Al%	Other% <0.15
H400513	0.11	0.22	0.03	0.49	4.43	0.10	0.02	0.03	Remainder	0.02
H400511	0.14	0.21	0.02	0.51	4.42	0.11	0.03	0.02	Remainder	0.03

C.Mechanical properties tests

Heat No.	Yield Strength (MPa) >110	Tensile Strength (MPa) >270	Elongation (%) >12	Roughness	Impact Test
H400513	178	295	21	OK	N/A
H400511	179	297	22	OK	N/A

D.Visual and dimensional inspection:

Item	*Visual Inspection*	*Dimension Inspection*
Conclusion	GOOD	GOOD

E.Remark

1, The goods are manufactured according to a quality management system approved and registered to ISO 9001:2008, meet PED 2014/68/EU,Annex 1.Paragraph 4.3

2,These pipe and accessories were manufactured, sampled, tested and inspected accordance with specification, and were found to meet the requirements,

Lister: ***Bobby*** ***Date:*** 2019/12/23 ***Quality Controller:***

SHANGHAI C&N INDUSTRIAL GROUP LIMITED
QUALITY INSPECTION TEST