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Aluminum Stock Guide.



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New! In this edition of the Aluminum Stock Guide, CBS Part Numbers make ordering easier than ever.

Note: The data contained within this brochure has been compiled and developed from many sources. While every effort has been made to cross-check and verify this information, thyssenkrupp Materials NA, Inc., does not guarantee its accuracy. This data is not to be used for design or specification purposes.



Complete stocks of aluminum and other nonferrous metals are as close as your phone when you call Copper and Brass Sales.

a·lu·mi·num

1. Chem. a silver-white metallic element, light in weight, ductile, malleable, and not readily corroded or tarnished.

Aluminum is widely acknowledged as one of the most versatile materials available today. Due mainly to a unique combination of characteristics, there is an aluminum alloy to fit almost any application imaginable.

One of aluminum's most appealing properties is a high resistance to corrosion due to the natural oxide film that forms when it is exposed to air. Some aluminum alloys are stronger than structural steel, yet all the alloys are light in weight.

Aluminum is nontoxic, which allows it to have direct contact with food products without harmful effects on the body. Because of this characteristic, it is widely used to make cooking utensils, and is very prevalent in equipment for food processing industries.

Aluminum is one of two common metals having an electrical conductivity high enough for use as electrical conductors. High thermal conductivity is another feature that promotes widespread use in cooking utensils and heat exchangers. Another very important asset of aluminum is the ease with which it can be fabricated, machined, and joined by almost any method.

While for the majority of applications aluminum needs no protective coating, it accepts a wide assortment of surface finishes and is an excellent base for producing painted sheet.

This brochure includes data on both wrought alloy and cast products. An aluminum product is considered wrought if it has been subjected to mechanical working by rolling, extruding, forging, or other such processes. Wrought alloys are designated as either heat treatable or non-heat treatable.

Aluminum Wrought Alloys

Non-Heat Treatable Alloys

The initial strength of the non-heat treatable group of alloys depends upon the hardening effects of elements such as manganese, magnesium, silicon, and iron, used singly or in combination. These alloys can be further strengthened only by cold working. Typical uses and characteristics of these alloys are summarized in the following table:

Alloy	Characteristics	Uses
1100	Excellent corrosion resistance, high thermal and electrical conductivity, excellent workability, readily welded and brazed	Chemical equipment, spun hollow ware, decorative parts and trim, sheet metal work, cooking utensils, heat exchanger fins
1350	Developed especially for electrical conductor use	Electrical conductors, coil windings, power transmission systems
3003	General purpose, moderate strength, good workability and weldability, high resistance to corrosion	Cooking utensils, refrigerator panels, chemical equipment, general sheet metal work, eyelet stock, gasoline tanks, heat exchangers, storage tanks
5005	Moderate to high strength, good welding properties, good corrosion resistance, forms easily, excellent for anodizing since it exhibits less tendency to structural streaking	Appliances, insulation jacketing, cooking utensils, chemical equipment, small boats
5052	Excellent resistance to salt water corrosion, good weldability and workability, higher strength than 1100 or 3003 alloys, good finishing characteristics	Home appliances, chemical drums, truck and bus bodies, small boats, sheet metal parts, kitchen cabinets, fencing, fan blades, tank cars and trailers
5086	Good forming properties, excellent corrosion resistance in marine environments, excellent weldability, stronger than 5052	Shipyards plate, tanks, unfired welded pressure vessels, auto aircraft cryogenics, drilling rigs

Temper Designations for the Non-Heat Treatable Alloys

Temper designations for non-heat treatable alloys are indicated by suffixes to the alloy number as follows:

- F** As fabricated
- O** Annealed
- H** Strain hardened

The letter "H" is always followed by 2 or 3 digits. The first digit indicates the particular method used to obtain the temper, as follows:

- H1** Strain hardened only
- H2** Strain hardened, then partially annealed
- H2** Strain hardened, then stabilized

The temper is indicated by the second digit. For instance:

- HX2** 1/4 hard
- HX4** 1/2 hard
- HX6** 3/4 hard
- HX8** full hard
- HX9** extra hard

The third digit, when used, indicates a variation of a two-digit temper. It is used when the degree of control of temper or the mechanical properties or both differ from, but are close to, that (or those) for the two-digit H temper designation to which it is added, or when some other characteristic is significantly affected. NOTE: The minimum ultimate tensile strength of a three-digit H temper must be at least as close to that of the corresponding two-digit H temper as it is to the adjacent two-digit H tempers. Products in the H temper whose mechanical properties are below H_1 shall be variations of H_1.

Heat Treatable Alloys

The initial strength of the heat treatable group of alloys is heightened by the addition of elements such as copper, zinc, silicon, and magnesium, used singly or in combination. These alloys may be further strengthened by a suitable thermal treatment. Typical uses and characteristics of these alloys are summarized in the following table:

Alloy	Characteristics	Uses
2011	Good machinability, good mechanical properties, excellent free-cutting properties	Screw machine products, tube fittings, pipe stems, atomizer and hose parts
2017	Stronger than 2011, fair workability and corrosion resistance, good machinability	Screw machine products, rivets, fasteners, aircraft components
2024	High strength, formability and workability is fair, may be spot welded	Aircraft parts, truck wheels, scientific instruments, veterinary and orthopedic braces and equipment
2024 ALCLAD	Cladding provides superior corrosion resistance, good appearance	Aircraft frames and skins, washers, truck bodies, railroad car roofs and sides
6013	This alloy features B-rated machinability along with improved tensile properties	Applications that require improved machinability over 6061 alloys
6020	A lead free alloy with A-rated machinability. High mechanical properties, excellent anodizing response, excellent corrosion resistance, good brazability and weldability	Screw machine parts
6061	One of the most versatile of heat-treatable alloys, good formability and high resistance to corrosion, medium strength relative to 2000 or 7000 alloys	Truck and bus bodies, sailboats, canoes, transmission towers, chemical equipment, paper and textile rolls
6063	High corrosion resistance, medium strength, good natural finish	Irrigation pipe, store fronts, architectural trim, pipe railing, furniture
6101	Excellent electrical and thermal conductivity, used for electrical conductors	High strength bus conductors
6262	Excellent machinability, good resistance to corrosion, readily welded, good finishing characteristics	Screw machine products, camera parts, fittings, nuts, couplings
7050	This alloy retains its strength in thicker sections while maintaining good corrosion resistance and toughness	Aircraft applications including fuselage frames and bulkheads
7075	One of the strongest and hardest alloys available, good machinability, fair corrosion resistance, excellent finishing characteristics	Aircraft, ordnance, keys, small gears
7075 ALCLAD	Provides strength of 7075 with superior corrosion resistance from cladding	Aerospace applications requiring maximum corrosion resistance, skis

Temper Designations for the Heat Treatable Alloys

These alloys can be heat treated to produce stable tempers other than F, O, or H and are designated as follows:

- T3** Solution heat treated, then cold worked
- T351** Solution heat treated, naturally aged, stretcher stress relieved
- T4** Solution heat treated and naturally aged to a substantially stable condition
- T6** Solution heat treated, then artificially aged

- T42** Solution heat treated from the O or F temper to demonstrate response to heat treatment, and naturally aged to a substantially stable condition
- T62** Solution heat treated from the O or F temper to demonstrate response to heat treatment, and artificially aged
- T651,**
- T751** Stress relieved by stretching
- T9** Solution heat treated, artificially aged, and then cold worked

Chemical Compositions

This table contains the chemical composition limits of wrought aluminum alloys in percent by weight maximum unless shown as a range or minimum. Except for "aluminum" and "others," analysis normally is made for elements for which specific limits are shown. For purposes of determining conformance to these limits, an observed value or a calculated value obtained from analysis is rounded off to the nearest unit in the last right-hand place of figures used in expressing the specified limit, in accordance with ASTM Recommended Practice E29.

Alloy	Silicon	Iron	Copper	Manganese	Magnesium	Chromium	Zinc	Titanium	Others ⁽¹⁾		Aluminum Min. ⁽⁴⁾
									Each ⁽²⁾	Total ⁽³⁾	
1100	0.95 Si + Fe	–	0.05 – 0.20	0.05	–	–	0.10	–	0.05 ⁽⁵⁾	0.15	99.00
2011	0.40	0.7	5.0 – 6.0	–	–	–	0.30	–	0.05 ⁽⁶⁾	0.15	Remainder
2014	0.50 – 1.2	0.7	3.9 – 5.0	0.40 – 1.2	0.20 – 0.8	0.10	0.25	0.15	0.05	0.15	Remainder
2017	0.20 – 0.8	0.7	3.5 – 4.5	0.40 – 1.0	0.40 – 0.8	0.10	0.25	0.15	0.05	0.15	Remainder
2024	0.50	0.50	3.8 – 4.9	0.30 – 0.9	1.2 – 1.8	0.10	0.25	0.15	0.05	0.15	Remainder
3003	0.6	0.7	0.05 – 0.20	1.0 – 1.5	–	–	0.10	–	0.05	0.15	Remainder
5005	0.30	0.7	0.20	0.20	0.50 – 1.1	0.10	0.25	–	0.05	0.15	Remainder
5052	0.25	0.40	0.10	0.10	2.2 – 2.8	0.15 – 0.35	0.10	–	0.05	0.15	Remainder
5083	0.40	0.40	.10	0.4 – 1.0	4.0 – 4.9	0.05 – 0.25	0.25	0.15	0.05	0.15	Remainder
5086	0.40	0.50	0.10	0.20 – 0.7	3.5 – 4.5	0.05 – 0.25	.025	0.15	0.05	0.15	Remainder
6013	0.6 – 1.0	0.50	0.6 – 1.1	0.20 – 0.80	0.8 – 1.2	0.10	0.25	0.10	0.05	0.15	Remainder
6020	0.4 – 0.9	0.50	0.3 – 0.9	0.35	0.6 – 1.2	0.15	.20	0.15	0.05	0.15	Remainder
6061	0.40 – 0.8	0.7	0.15 – 0.40	0.15	0.8 – 1.2	0.04 – 0.35	0.25	0.15	0.05	0.15	Remainder
6063	0.20 – 0.6	0.35	0.10	0.10	0.45 – 0.9	0.10	0.10	0.10	0.05	0.15	Remainder
6101 ⁽⁶⁾	0.30 – 0.7	0.50	0.10	0.05	0.35 – 0.8	0.05	0.10	–	0.05 ⁽⁹⁾	0.10	Remainder
6262	0.40 – 0.8	0.7	0.15 – 0.40	0.15	0.8 – 1.2	0.04 – 0.14	0.25	0.15	0.05 ⁽¹⁰⁾	0.15	Remainder
7050	0.12	0.15	2.0 – 2.6	0.10	1.9 – 2.6	0.04	5.7 – 6.7	0.06	0.05 ⁽¹²⁾	0.15	Remainder
7075	0.40	0.50	1.2 – 2.0	0.30	2.1 – 2.9	0.18 – 0.28	5.1 – 6.1	0.20	0.05	0.15	Remainder

Notes:

- | | |
|--|--|
| (1) Includes listed elements for which no specific limit is shown. | (5) Beryllium 0.0008 maximum for welding electrode and welding rod only. |
| (2) A .0008 weight percent maximum beryllium is applicable to any alloy to be used as welding electrode or welding rod. | (6) Also contains 0.20 to 0.6 percent each of lead and bismuth. |
| (3) The sum of those "others" metallic elements 0.010 percent or more each, expressed to the second decimal before determining the sum. | (7) Gallium 0.03 percent maximum; vanadium 0.05 percent maximum. |
| (4) The aluminum content for unalloyed aluminum not made by a refining process is the difference between 100.00 percent and the sum of all other metallic elements present in amounts of 0.010 percent or more each, expressed to the second decimal before determining the sum. | (8) Bus conductor. |
| | (9) Boron 0.06 percent maximum. |
| | (10) Also contains 0.40 to 0.7 percent each of lead and bismuth. |
| | (11) Also contains 0.10 to 0.16 percent of zirconium. |
| | (12) Also contains 0.08 to 0.15 percent of zirconium. |

Typical Physical Properties

The following typical properties are not guaranteed since in most cases they are averages for various sizes, product forms, and methods of manufacture and may not be exactly representative of any particular product or size. These data are intended only as a basis for comparing alloys and tempers and should not be specified as engineering requirements or used for design purposes.

Alloy	Density Lb/in ³	Average ⁽¹⁾ Coefficient of Thermal Expansion 68 to 212°F x 10 ⁻⁶ per °F	Melting Range ^(2, 3) Approximate °F	Temper	Thermal Conductivity at 77°F Btu/Ft/ Ft ² /Hr/°F	Electrical Conductivity at 68°F Percent of International Annealed Copper Standard		Electrical Resistivity at 68°F Ohms- Cir Mil/Ft
						Equal Volume	Equal Weight	
Non-Heat Treatable								
1100	.098	13.1	1190 – 1215	0	128	59	194	18
				H18	125	57	187	18
3003	.099	12.9	1190 – 1210	0	112	50	163	21
				H12	94	42	137	25
				H14	92	41	134	25
				H18	89	40	130	26
5005	.098	13.2	1170 – 1210	All	116	52	172	20
5052	.097	13.2	1125 – 1200	All	80	35	116	30
5083	.096	13.2	1095 – 1180	0	81	29	98	36
5086	.096	13.2	1085 – 1185	All	73	31	104	33
Heat Treatable								
2011	.102	12.7	1005 – 1190 ⁽⁵⁾	T3	88	39	123	27
				T8	99	45	142	23
2014	.101	12.8	945 – 1180 ⁽⁴⁾	0	112	50	159	21
				T4	78	34	108	31
				T6	89	40	127	26
2017	.101	13.1	955 – 1185 ⁽⁴⁾	0	112	50	159	21
				T4	76	34	108	31
2024	.100	12.9	935 – 1180 ⁽⁴⁾	0	112	50	160	21
				T3, T4, T361	70	30	96	35
				T6, T81, T861	88	38	122	27
6013	.098	13.0		T651	95			
6020	.098	13.2		T8, T9				
6061	.098	13.1	1080 – 1205 ⁽⁵⁾	0	104	47	155	22
				T4	89	40	132	26
				T6	96	43	142	24
6063	.097	13.0	1140 – 1210	0	126	58	191	18
				T1	112	50	165	21
				T5	121	55	181	19
				T6, T83	116	53	175	20
6101	.097	13.0	1150 – 1210	T6	126	57	188	18
				T61	128	59	194	18
				T63	126	58	191	18
				T64	131	60	198	17
				T65	126	58	191	18
7075	.101	13.1	890 – 1175 ⁽⁶⁾	T6	75	33	105	31

Notes:

- | | |
|--|---|
| (1) Coefficient to be multiplied by 10 ⁻⁶ . Example: 12.2 x 10 ⁻⁶ = 0.0000122. | (5) Eutectic melting can be completely eliminated by homogenization. |
| (2) Melting ranges shown apply to wrought products of 1/4 inch thickness or greater. | (6) Homogenization may raise eutectic melting temperature 20-40 °F but usually does not eliminate eutectic melting. |
| (3) Based on typical composition of the indicated alloys. | |
| (4) Eutectic melting is not eliminated by homogenization. | |

Typical Mechanical Properties

The following typical properties are not guaranteed since in most cases they are averages for various sizes, product forms, and methods of manufacture and may not be exactly representative of any particular product or size. These data are intended only as a basis for comparing alloys and tempers and should not be specified as engineering requirements or used for design purposes. The indicated typical mechanical properties for all except O temper material are higher than the specified minimum properties. For O temper products, typical ultimate and yield values are slightly lower than specified (maximum) values.

Non-Heat Treatable

Alloy and Temper	Tensile Strength (ksi)		Elongation % in 2 in.		Brinell Hardness 500 kg Load 10 mm Ball	Ultimate Shearing Strength (ksi)	Fatigue Endurance ⁽¹⁾ Limit (ksi)	Modulus ⁽²⁾ of Elasticity (ksi x 10 ³)
	Ultimate	Yield	1/16 in. Thick Specimen	1/2 in. Diameter Specimen				
1100-O	13	5	35	45	23	9	5	10.0
1100-H12	16	15	12	25	28	10	6	10.0
1100-H14	18	17	9	20	32	11	7	10.0
1100-H16	21	20	6	17	38	12	9	10.0
1100-H18	24	22	5	15	44	13	9	10.0
3003-O	16	6	30	40	28	11	7	10.0
3003-H12	19	18	10	20	35	12	8	10.0
3003-H14	22	21	8	16	40	14	9	10.0
3003-H16	26	25	5	14	47	15	10	10.0
3003-H18	29	27	4	10	55	16	10	10.0
5005-O	18	6	25	-	28	11	-	10.0
5005-H12	20	19	10	-	-	14	-	10.0
5005-H14	23	22	6	-	-	14	-	10.0
5005-H16	26	25	5	-	-	15	-	10.0
5005-H18	29	28	4	-	-	16	-	10.0
5005-H32	20	17	11	-	36	14	-	10.0
5005-H34	23	20	8	-	41	14	-	10.0
5005-H36	26	24	6	-	46	15	-	10.0
5005-H38	29	27	5	-	51	16	-	10.0
5052-O	28	13	25	30	47	18	16	10.2
5052-H32	33	28	12	18	60	20	17	10.2
5052-H34	38	31	10	14	68	21	18	10.2
5052-H36	40	35	8	10	73	23	19	10.2
5052-H38	42	37	7	8	77	24	20	10.2
5086-H32, H116	42	30	12	-	-	-	-	10.3

Notes:

- (1) Based on 500,000,000 cycles of completely reversed stress using the R.R. Moore type of machine and specimen.
 (2) Average of tension and compression moduli. Compression modulus is about 2% greater than tension modulus.

Heat Treatable

Alloy and Temper	Tensile Strength (ksi)		Elongation % in 2 in.		Brinell Hardness 500 kg Load 10 mm Ball	Ultimate Shearing Strength (ksi)	Fatigue Endurance ⁽¹⁾ Limit (ksi)	Modulus ⁽²⁾ of Elasticity (ksi x 10 ³)
	Ultimate	Yield	1/16 in. Thick Specimen	1/2 in. Diameter Specimen				
2011-T3	55	43	-	15	95	32	18	10.2
2011-T8	59	45	-	12	100	35	18	10.2
2014-O	27	14	-	18	45	18	13	10.6
2014-T4, T451	62	42	-	20	105	38	20	10.6
2014-T6, T651	70	60	-	13	135	42	18	10.6
2017-O	26	10	-	22	45	18	13	10.5
2017-T4, T451	62	40	-	22	105	38	18	10.5
2024-O	27	11	20	22	47	18	13	10.6
2024-T3	70	50	18	-	120	41	20	10.6
2024-T4, T351	68	47	20	19	120	41	20	10.6
2024-T361 ⁽³⁾	72	57	13	-	130	42	18	10.6
Alclad 2024-O	26	11	20	-	-	18	-	10.6
Alclad 2024-T3	65	45	18	-	-	40	-	10.6
Alclad 2024-T4, T351	64	42	19	-	-	40	-	10.6
Alclad 2024-T361 ⁽³⁾	67	53	11	-	-	41	-	10.6
Alclad 2024-T81, T851	65	60	6	-	-	40	-	10.6
Alclad 2024-T861 ⁽³⁾	70	66	6	-	-	42	-	10.6
6013-T4	40	21	20	-	-	-	-	-
6013-T651	60	50	-	-	120	-	-	10.1
6020-T8 ⁽⁴⁾	42	39	-	12	-	-	-	-
6020-T9 ⁽⁴⁾	49	46	-	5	-	-	-	-
6061-O	18	8	25	30	30	12	9	10.0
6061-T4, T451	35	21	22	25	65	24	14	10.0
6061-T6, T651	45	40	12	17	95	30	14	10.0
6063-O	13	7	-	-	25	10	8	10.0
6063-T1	22	13	20	-	42	14	9	10.0
6063-T4	25	13	22	-	-	-	-	10.0
6063-T5	27	21	12	-	60	17	10	10.0
6063-T6	35	31	12	-	73	22	10	10.0
6063-T83	37	35	9	-	82	22	-	10.0
6063-T831	30	27	10	-	70	18	-	10.0
6063-T832	42	39	12	-	95	27	-	10.0
6101-H111	14	11	-	-	-	-	-	10.0
6101-T6	32	28	15	-	71	20	-	10.0
6262-T9	58	55	-	10	120	35	13	10.0
7050-T7451	76	68	-	11	-	44	-	10.4
7075-O	33	15	17	16	60	22	-	10.4
7075-T6, T651	83	73	11	11	150	48	23	10.4
Alclad 7075-O	32	14	17	-	-	22	-	10.4
Alclad 7075-T6, T651	76	67	11	-	-	46	-	10.4

Notes:

- (1) Based on 500,000,000 cycles of completely reversed stress using the R.R. Moore type of machine and specimen.
 (2) Average of tension and compression moduli. Compression modulus is about 2% greater than tension modulus.
 (3) Tempers T361 and T861 were formerly designated T36 and T86, respectively.
 (4) Up to 2 inches in diameter.

Comparative Characteristics

Non-Heat Treatable

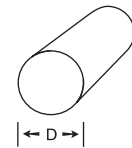
Wrought Alloys and Tempers	Resistance to Corrosion		Workability (Cold) ⁽⁴⁾	Machinability ⁽⁴⁾	Brazeability ⁽⁵⁾	Weldability ⁽⁵⁾		
	General ⁽¹⁾	Stress Corrosion Cracking ⁽²⁾				Gas	Arc	Resistance: Spot and Seam
1100-0	A	A	A	E	A	A	A	B
1100-H12	A	A	A	E	A	A	A	A
1100-H14	A	A	A	D	A	A	A	A
1100-H16	A	A	B	D	A	A	A	A
1100-H18	A	A	C	D	A	A	A	A
3003-0	A	A	A	E	A	A	A	B
3003-H12	A	A	A	E	A	A	A	A
3003-H14	A	A	B	D	A	A	A	A
3003-H16	A	A	C	D	A	A	A	A
3003-H18	A	A	C	D	A	A	A	A
3003-H25	A	A	B	D	A	A	A	A
5005-0	A	A	A	E	B	A	A	B
5005-H12	A	A	A	E	B	A	A	A
5005-H14	A	A	B	D	B	A	A	A
5005-H16	A	A	C	D	B	A	A	A
5005-H18	A	A	C	D	B	A	A	A
5005-H32	A	A	A	E	B	A	A	A
5005-H34	A	A	B	D	B	A	A	A
5005-H36	A	A	C	D	B	A	A	A
5005-H38	A	A	C	D	B	A	A	A
5052-0	A	A	A	D	C	A	A	B
5052-H32	A	A	B	D	C	A	A	A
5052-H34	A	A	B	C	C	A	A	A
5052-H36	A	A	C	C	C	A	A	A
5052-H38	A	A	C	C	C	A	A	A
5086-H32, H115	A ⁽³⁾	A ⁽³⁾	B	D	D	C	A	A

Heat Treatable

Wrought Alloys and Tempers	Resistance to Corrosion		Workability (Cold) ⁽⁴⁾	Machinability ⁽⁴⁾	Brazeability ⁽⁵⁾	Weldability ⁽⁵⁾		
	General ⁽¹⁾	Stress Corrosion Cracking ⁽²⁾				Gas	Arc	Resistance: Spot and Seam
2011-T3	D ⁽⁵⁾	D	C	A	D	D	D	D
2011-T4, T451	D ⁽⁵⁾	D	B	A	D	D	D	D
2011-T8	D	B	D	A	D	D	D	D
2014-0	–	–	–	D	D	D	D	B
2014-T3, T4, T451	D ⁽⁵⁾	C	C	B	D	D	B	B
2014-T6, T651, T6510, T6511	D	C	D	B	D	D	B	B
2017-T4, T451	D ⁽⁵⁾	C	C	B	D	D	B	B
2024-0	–	–	–	D	D	D	D	D
2024-T4, T3, T351, T3510, T3511	D ⁽⁵⁾	C	C	B	D	C	B	B
2024-T6	D	B	C	B	D	D	C	B
2024-T861, T81, T851, T8510, T8511	D	B	D	B	D	D	C	B
2050-T7451, T7651	C	B	D	B	D	D	D	B
6013-T651	B	A	C	B	B	A	A	A
6020-T8	B	–	–	A	B	–	B	–
6020-T9	B	–	–	A	B	–	B	–
6061-0	B	A	A	D	A	A	A	B
6061-T4, T451, T4510, T4511	B	B	B	C	A	A	A	A
6061-T6, T651, T652, T6510, T6511	B	A	C	C	A	A	A	A
6063-T1	A	A	B	D	A	A	A	A
6063-T4	A	A	B	D	A	A	A	A
6063-T5, T52	A	A	B	C	A	A	A	A
6063-T6	A	A	C	C	A	A	A	A
6063-T83, T831, T832	A	A	C	C	A	A	A	A
6101-T6, T63	A	A	C	C	A	A	A	A
6101-T61, T64	A	A	B	D	A	A	A	A
6262-T6, T651, T6510, T6511	B	A	C	B	B	B	B	A
6262-T9	B	A	D	B	B	B	B	A
7050-T7451	C	B	D	B	D	D	D	B
7075-0	–	–	–	D	D	D	D	B
7075-T6, T651, T652, T6510, T6511	C ⁽⁵⁾	C	D	B	D	D	D	B
7075-T73, T7351	C	B	D	B	D	D	D	B

Notes for Comparative Characteristics:

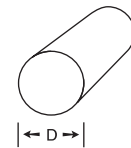
- (1) Ratings A through E are relative ratings in decreasing order of merit, based on exposures to sodium chloride solution by intermittent spraying or immersion. Alloys with A and B ratings can be used in industrial and seacoast atmospheres without protection. Alloys with C, D, and E ratings generally should be protected at least on faying surfaces.
- (2) Stress corrosion cracking ratings are based on service experience and on laboratory tests of specimens exposed to the 3.5% sodium chloride alternate immersion test and are expressed as follows:
 A = No known instance of failure in service or in laboratory tests.
 B = No known instance of failure in service; limited failures in laboratory tests of short transverse specimens.
 C = Service failures with sustained tension stress acting in short transverse direction relative to grain structure; limited failures in laboratory tests of long transverse specimens.
 D = limited service failures with sustained longitudinal or long transverse stress.
- (3) This rating may be different for material held at elevated temperature for long periods.
- (4) Ratings A through D for Workability (cold), and A through E for Machinability, are relative ratings in decreasing order of merit.
- (5) Ratings A through D for Weldability and Brazeability are relative ratings defined as follows:
 A = Generally weldable by all commercial procedures and methods.
 B = Weldable with special techniques or for specific applications which justify preliminary trials or testing to develop welding procedure and weld performance.
 C = Limited Weldability because of crack sensitivity or loss in resistance to corrosion and mechanical properties.
 D = No commonly used welding methods have been developed.



6061-T6511 Round Aluminum Bar

Extruded – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 221

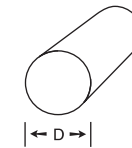
CBS Part No.	Diameter (Inches)	Diameter Tolerance	Pounds Per Foot
ALRD00825	0.25	(±.008)	0.0577
ALRD00002	0.3125	(±.008)	0.0902
ALRD00732	0.375	(±.005)	0.1298
ALRD01046	0.375	(±.0025)	0.1298
ALRD00155	0.4375	(±.005)	0.1767
ALRD00741	0.5	(±.005)	0.2309
ALRD00845	0.5625	(±.004)	0.2921
ALRD00391	0.625	(±.004)	0.3606
ALRD00315	0.6875	(±.004)	0.4363
ALRD00418	0.75	(±.005)	0.5193
ALRD00186	0.8125	(±.004)	0.6094
ALRD00291	0.875	(±.004)	0.7068
ALRD00009	0.9375	(±.004)	0.8114
ALRD00394	1	(±.005)	0.9232
ALRD00816	1.0625	(±.006)	1.0422
ALRD00329	1.125	(±.006)	1.1684
ALRD00050	1.1875	(±.005)	1.3018
ALRD00192	1.25	(±.005)	1.4424
ALRD00172	1.3125	(±.005)	1.5903
ALRD00667	1.375	(±.006)	1.7453
ALRD00837	1.4375	(±.005)	1.9076
ALRD00339	1.5	(±.007)	2.0771
ALRD00840	1.5	(±.021)	2.0781
ALRD01033	1.505	(±.005)	2.0919
ALRD01024	1.515	(±.006)	2.1198
ALRD00301	1.5625	(±.006)	2.2548
ALRD01073	1.5937	(±.006)	2.3447
ALRD00062	1.625	(±.021)	2.4338
ALRD00393	1.625	(±.005)	2.4377
ALRD00983	1.625	(±.006)	2.4388
ALRD01042	1.6875	(±.005)	2.6288
ALRD00176	1.75	(±.006)	2.8285
ALRD00384	1.8125	(±.005)	3.0327
ALRD00068	1.875	(±.005)	3.2455
ALRD00336	2	(±.008)	3.6926
ALRD00846	2.125	(±.008)	4.1686
ALRD00984	2.1875	(±.008)	4.4175
ALRD00129	2.25	(±.008)	4.6735
ALRD00795	2.375	(±.008)	5.2072
ALRD00312	2.5	(±.008)	5.7698
ALRD01087	2.5625	(±.006)	6.0618
ALRD00093	2.625	(±.008)	6.3641
ALRD00105	2.75	(±.008)	6.9814
ALRD00055	2.875	(±.008)	7.6305
ALRD00114	3	(±.008)	8.3084
ALRD00126	3.125	(±.012)	9.0152
ALRD00173	3.25	(±.024)	9.7555
ALRD00386	3.25	(±.012)	9.7509
ALRD00752	.375	(±.012)	10.520
ALRD00772	3.5	(±.012)	11.308
ALRD00313	3.625	(±.012)	12.130
ALRD00433	3.75	(±.012)	12.981
ALRD00285	4	(±.017)	14.777
ALRD00127	4.125	(±.017)	15.708
ALRD00246	4.25	(±.017)	16.674
ALRD00856	4.375	(±.017)	17.669
ALRD00814	4.5	(±.017)	18.694



6061-T6 Round Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS-QQ-A-225, ASTM B 211

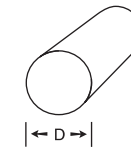
CBS Part No.	Diameter (Inches)	Diameter Tolerance	Pounds Per Foot
ALRD00282	0.125	(±.0015)	0.0144
ALRD00258	0.1875	(±.0015)	0.0325
ALRD00160	0.25	(±.0015)	0.0577
ALRD00233	0.3125	(±.0015)	0.0902
ALRD00806	0.375	(±.0015)	0.1298
ALRD00217	0.4375	(±.0015)	0.1767
ALRD00157	0.5	(±.0015)	0.2308
ALRD00320	0.625	(±.002)	0.3608



7075-T651 Round Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS 4123, AMS-QQ-A-225, ASTM B 211

CBS Part No.	Diameter (Inches)	Diameter Tolerance	Pounds Per Foot
ALRD00720	0.5	(+-.0015)	0.2380
ALRD00043	0.625	(+-.002)	0.3718
ALRD01157	0.625	(+-.002)	0.3718
ALRD01199	0.6875	(+-.002)	0.4499
ALRD00694	0.75	(+-.002)	0.5354
ALRD01200	0.8125	(+-.002)	0.6284
ALRD00397	0.875	(+-.002)	0.7288
ALRD01158	0.875	(+-.002)	0.7288
ALRD00561	1	(+-.002)	0.9519
ALRD01159	1	(+-.002)	0.9519
ALRD01201	1.0625	(+-.0025)	1.0746
ALRD00372	1.125	(+-.0025)	1.2047
ALRD00216	1.1875	(+-.0025)	1.3423
ALRD00116	1.25	(+-.0025)	1.4873
ALRD01160	1.25	(+-.0025)	1.4873
ALRD00220	1.375	(+-.0025)	1.7996
ALRD01161	1.375	(+-.0025)	1.7996
ALRD00229	1.5	(+-.0025)	2.1417
ALRD01162	1.5	(+-.0025)	2.1417
ALRD00042	1.625	(+-.004)	2.5135
ALRD01163	1.625	(+-.004)	2.5135
ALRD00322	1.75	(+-.004)	2.9151
ALRD01164	1.75	(+-.004)	2.9151
ALRD00323	1.875	(+-.004)	3.3464
ALRD01165	1.875	(+-.004)	3.3464
ALRD00096	2	(+-.004)	3.8075
ALRD01166	2	(+-.004)	3.8075
ALRD00662	2.125	(+-.006)	4.2983
ALRD01167	2.125	(+-.006)	4.2983
ALRD00788	2.25	(+-.006)	4.8189
ALRD01168	2.25	(+-.006)	4.8189
ALRD00706	2.375	(+-.006)	5.3692
ALRD01169	2.375	(+-.006)	5.3692
ALRD00090	2.5	(+-.006)	5.9492
ALRD01170	2.5	(+-.006)	5.9492
ALRD00707	2.625	(+-.006)	6.5590
ALRD00215	2.75	(+-.006)	7.1986
ALRD01171	2.75	(+-.006)	7.1986
ALRD00257	3	(+-.006)	8.5669
ALRD01172	3	(+-.006)	8.5669
ALRD00835	3.25	(+-.008)	10.0542
ALRD00086	3.5	(+-.012)	11.6605
ALRD00749	3.75	(+-.012)	13.3857
ALRD00353	4	(+-.012)	15.2300
ALRD00280	4.25	(+-.012)	17.1932
ALRD00125	4.5	(+-.012)	19.2755
ALRD00354	4.75	(+-.012)	21.4767
ALRD00189	5	(+-.012)	23.7969
ALRD00032	5.25	(+-.020)	26.2360
ALRD00264	5.5	(+-.020)	28.7942
ALRD00826	6	(+-.020)	34.2675
ALRD00992	6.25	(+-.025)	37.1826
ALRD00439	6.5	(+-.025)	40.2167
ALRD00180	7	(+-.025)	46.6419
ALRD00031	8	(+-.030)	60.9200

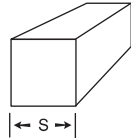


7075-T7351 Round Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS 4124, AMS-QQ-A-225, ASTM B 211

CBS Part No.	Diameter (Inches)	Diameter Tolerance	Pounds Per Foot
ALRD00005	0.625	(+-.002)	0.3718
ALRD00011	0.75	(+-.002)	0.5354
ALRD00714	0.875	(+-.002)	0.7288
ALRD00054	1	(+-.002)	0.9519
ALRD00843	1.25	(+-.0025)	1.4873
ALRD01076	1.3125	(+-.0025)	1.6398
ALRD00464	1.375	(+-.0025)	1.7996
ALRD00352	1.5	(+-.0025)	2.1417
ALRD00196	1.625	(+-.004)	2.5135
ALRD00836	2	(+-.004)	3.8075
ALRD00382	2.25	(+-.006)	4.8189
ALRD00284	2.5	(+-.006)	5.9492
ALRD00853	2.75	(+-.006)	7.1986
ALRD00077	3	(+-.006)	8.5669
ALRD00471	3.25	(+-.008)	10.0542
ALRD00373	3.5	(+-.012)	11.6605
ALRD00370	3.75	(+-.012)	13.3857
ALRD00141	5	(+-.012)	23.7969
ALRD01063	5.5	(+-.020)	28.7942
ALRD00540	6	(+-.025)	34.2675
ALRD00648	6.5	(+-.025)	40.2167

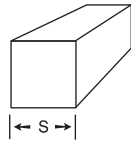
Square Bar



2024-T351 Square Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS 4120, AMS-QQ-A-225, ASTM B 211

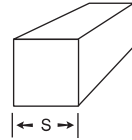
CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALSQ00001	0.375	(±.002)	0.1688
ALSQ00037	0.5	(±.002)	0.303
ALSQ00132	0.5625	(±.0025)	0.3797
ALSQ00044	0.75	(±.0025)	0.6818
ALSQ00048	0.875	(±.0025)	0.9279
ALSQ00028	1	(±.0025)	1.212
ALSQ00120	1.125	(±.003)	1.5339
ALSQ00011	1.25	(±.003)	1.8935
ALSQ00043	1.25	(±.003)	1.8935
ALSQ00041	1.5	(±.003)	2.727
ALSQ00017	1.75	(±.005)	3.7118
ALSQ00038	2	(±.005)	4.8
ALSQ00035	2.5	(±.008)	7.575
ALSQ00025	3	(±.008)	10.908
ALSQ00042	4	(±.020)	19.392



6061-T6 Square Aluminum Bar

Extruded – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 221

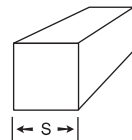
CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALSQ00108	0.25	(±.008)	0.0735
ALSQ00022	8	(±.054)	75.264



6061-T6511 Square Aluminum Bar Manifold Quality

Extruded – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 221

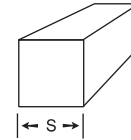
CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALSQ00135	1	(+.012-0)	1.190
ALSQ00137	1.25	(±.012-0)	1.855
ALSQ00138	1.5	(+.014-0)	2.6708
ALSQ00141	1.75	(+.024-0)	3.6511
ALSQ00070	2	(+.024-0)	4.761
ALSQ00143	2.25	(±.024-0)	6.0172
ALSQ00064	2.5	(+.024-0)	7.421
ALSQ00009	2.75	(+.024-0)	8.971
ALSQ00110	3	(+.024-0)	10.669
ALSQ00131	3.25	(+.024-0)	12.513
ALSQ00098	3.5	(+.024-0)	14.505
ALSQ00140	3.75	(+.024-0)	16.6435
ALSQ00101	4	(+.034-0)	18.976
ALSQ00058	4.5	(+.034-0)	23.994
ALSQ00129	4.75	(+.034-0)	26.724
ALSQ00085	5	(+.034-0)	29.600
ALSQ00078	5.5	(+.034-0)	35.794
ALSQ00074	6	(+.044-0)	42.647
ALSQ00134	6.5	(+.044-0)	50.0229



7075-T651 Square Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS 4123, AMS-QQ-A-225, ASTM B 211

CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALSQ00125	0.875	(±.0025)	0.9279
ALSQ00118	1	(±.0025)	1.212
ALSQ00010	1.5	(±.003)	2.727
ALSQ00014	2	(±.005)	4.848
ALSQ00092	2.25	(±.008)	6.1358
ALSQ00069	2.5	(±.008)	7.575

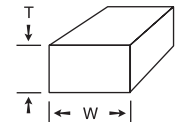


6061-T6511 Square Aluminum Bar

Extruded – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 221

Manifold quality bar features elevated mechanical properties along with twist, straightness, and dimensional tolerances one half that of standard commercial bar. All dimensional tolerances are on the plus side.

CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALSQ00045	0.375	(±.008)	0.1654
ALSQ00116	0.5	(±.009)	0.294
ALSQ00034	0.625	(±.009)	0.4594
ALSQ00019	0.75	(±.010)	0.6615
ALSQ00020	0.875	(±.010)	0.9004
ALSQ00013	1	(±.012)	1.176
ALSQ00015	1.125	(±.012)	1.4884
ALSQ00100	1.25	(±.012)	1.8375
ALSQ00053	1.375	(±.012)	2.249
ALSQ00039	1.5	(±.014)	2.646
ALSQ00004	1.625	(±.014)	3.1054
ALSQ00094	1.75	(±.014)	3.6015
ALSQ00057	1.875	(±.014)	4.135
ALSQ00067	2	(±.024)	4.704
ALSQ00023	2.25	(±.024)	5.9535
ALSQ00051	2.5	(±.024)	7.35
ALSQ00107	2.75	(±.024)	8.8935
ALSQ00115	3	(±.024)	10.584
ALSQ00005	3.25	(±.024)	12.4215
ALSQ00030	3.5	(±.024)	14.4061
ALSQ00122	3.625	(±.024)	15.416
ALSQ00016	3.75	(±.024)	16.5375
ALSQ00050	4	(±.034)	18.816
ALSQ00052	4.5	(±.034)	23.814
ALSQ00033	4.75	(±.034)	26.534
ALSQ00055	5	(±.034)	29.4
ALSQ00113	5.5	(±.034)	35.574
ALSQ00027	6	(±.044)	42.336
ALSQ00076	7	(±.044)	57.624
ALSQ00103	7.5	(±.044)	66.15



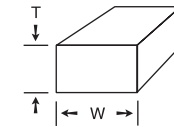
6061-T6511 Rectangular Aluminum Bar cont.

Extruded – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 211

CBS Part No.	Thickness (Inches)	Thickness Tolerance	Width (Inches)	Width Tolerance	Pounds Per Foot
ALRECO1017	0.5	(+.022-0)	14	(+.188-0)	8.4636
ALRECO1067	0.5	(+.022-0)	16	(+.208-0)	9.4998
ALRECO190	0.625	(+-.009)	0.75	(+-.010)	0.5513
ALRECO0845	0.625	(+-.009)	1	(+-.012)	0.735
ALRECO0733	0.625	(+-.009)	1.25	(+-.012)	0.9188
ALRECO0263	0.625	(+-.009)	1.5	(+-.014)	1.125
ALRECO0054	0.625	(+-.009)	1.75	(+-.014)	1.2863
ALRECO0292	0.625	(+-.009)	2	(+-.024)	1.47
ALRECO0055	0.625	(+-.009)	2.5	(+-.024)	1.8375
ALRECO0695	0.625	(+-.009)	3	(+-.024)	2.205
ALRECO0266	0.625	(+-.009)	3.25	(+-.024)	2.3888
ALRECO0188	0.625	(+-.009)	4	(+-.034)	2.94
ALRECO0631	0.625	(+-.009)	4.5	(+-.034)	3.3075
ALRECO0181	0.625	(+-.009)	5	(+-.034)	3.675
ALRECO0155	0.625	(+-.009)	6	(+-.044)	4.41
ALRECO0193	0.625	(+-.017)	8	(+-.064)	5.88
ALRECO1018	0.625	(+.022-0)	8	(+.108-0)	6.0239
ALRECO0142	0.625	(+-.017)	10	(+-.074)	7.35
ALRECO1019	0.625	(+.022-0)	10	(+.148-0)	7.535
ALRECO0995	0.625	(+-.017)	11	(+-.049)	8.085
ALRECO0729	0.625	(+-.017)	12	(+-.084)	8.82
ALRECO1020	0.625	(+.022-0)	12	(+.168-0)	9.038
ALRECO0873	0.625	(+-.017)	14	(+-.094)	10.29
ALRECO1021	0.625	(+.022-0)	14	(+.188-0)	10.54
ALRECO0644	0.75	(+-.01)	0.875	(+-.01)	0.7718
ALRECO0857	0.75	(+-.010)	1	(+-.012)	0.882
ALRECO105	0.75	(+-.010)	1.25	(+-.012)	1.1025
ALRECO0806	0.75	(+-.010)	1.5	(+-.014)	1.323
ALRECO0833	0.75	(+-.010)	1.75	(+-.014)	1.5435
ALRECO0881	0.75	(+-.010)	2	(+-.024)	1.764
ALRECO0437	0.75	(+-.010)	2.25	(+-.024)	1.9845
ALRECO0252	0.75	(+-.010)	2.5	(+-.024)	2.205
ALRECO0310	0.75	(+-.010)	2.75	(+-.024)	2.4255
ALRECO0894	0.75	(+-.010)	3	(+-.024)	2.646
ALRECO0048	0.75	(+-.010)	3.5	(+-.024)	3.087
ALRECO0256	0.75	(+-.010)	4	(+-.034)	3.528
ALRECO0440	0.75	(+-.010)	4.5	(+-.034)	3.969
ALRECO0872	0.75	(+-.010)	5	(+-.034)	4.41
ALRECO0274	0.75	(+-.010)	6	(+-.044)	5.292
ALRECO1089	0.75	(+-.010)	6.5	(+-.044)	5.733
ALRECO0084	0.75	(+-.010)	7	(+-.044)	6.174
ALRECO0902	0.75	(+-.010)	7.5	(+-.062)	6.615
ALRECO0199	0.75	(+-.010)	8	(+-.054)	7.056
ALRECO1022	0.75	(+.030-0)	8	(+.108-0)	7.245
ALRECO0623	0.75	(+-.01)	8.5	(+-.054)	7.498
ALRECO0946	0.75	(+-.010)	9	(+-.054)	7.938
ALRECO0888	0.75	(+-.018)	10	(+-.074)	8.82
ALRECO1023	0.75	(+.030-0)	10	(+.148-0)	9.063
ALRECO0830	0.75	(+-.018)	12	(+-.084)	10.584
ALRECO1024	0.75	(+.030-0)	12	(+.168-0)	10.871
ALRECO0835	0.75	(+-.017)	14	(+-.094)	12.348
ALRECO1025	0.75	(+.030-0)	14	(+.188-0)	112.68
ALRECO0264	0.875	(+-.010)	1	(+-.012)	1.029
ALRECO0871	0.875	(+-.010)	1.5	(+-.014)	1.5435
ALRECO0311	0.875	(+-.010)	2	(+-.024)	2.058
ALRECO0672	0.875	(+-.010)	3.25	(+-.024)	3.3443
ALRECO0291	1	(+-.012)	1.25	(+-.012)	1.47
ALRECO0287	1	(+-.012)	1.5	(+-.014)	1.764

* Not available in East Region, use Manifold Quality stock instead, see page 22.
† Flatness better than one-quarter commercial standards. Surface finish better than commercial standards.

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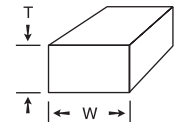
6061-T6511 Rectangular Aluminum Bar cont.

Extruded – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 211

CBS Part No.	Thickness (Inches)	Thickness Tolerance	Width (Inches)	Width Tolerance	Pounds Per Foot
ALRECO0402	1.25	(+-.012)	5	(+-.034)	7.35
ALRECO0670	1.25	(+.014-0)	5	(+.034-0)	7.4163
ALRECO0200	1.25	(+-.012)	5.5	(+-.034)	8.085
ALRECO0791	1.25	(+.014-0)	5.5	(+.034-0)	8.1554
ALRECO0822	1.25	(+-.012)	6	(+-.044)	8.82
ALRECO1063	1.25	(+.012-0)	6	(+.044-0)	8.8948
ALRECO1085	1.25	(+-.012)	7	(+-.044)	10.29
ALRECO0662	1.25	(+-.012)	8	(+-.054)	11.76
ALRECO1031	1.25	(+.038-0)	8	(+.108-0)	12.02
ALRECO0272	1.25	(+-.019)	10	(+-.084)	14.7
ALRECO1069	1.25	(+.038-0)	10	(+.148-0)	15.0339
ALRECO0998	1.25	(+-.012)	12	(+-.084)	17.64
ALRECO1032	1.25	(+.038-0)	12	(+.168-0)	18.034
ALRECO0756	1.25	(+-.019)	14	(+-.094)	20.58
ALRECO0021	1.5	(+-.014)	1.75	(+-.014)	3.087
ALRECO0401	1.5	(+-.014)	2	(+-.024)	3.528
ALRECO0415	1.5	(+.014-0)	2	(+.024-0)	3.566
ALRECO0514	1.5	(+-.014)	2.25	(+-.024)	3.969
ALRECO0304	1.5	(+-.014)	2.5	(+-.024)	4.41
ALRECO0509	1.5	(+.014-0)	2.5	(+.024-0)	4.452
ALRECO0710	1.5	(+-.012)	2.75	(+-.024)	4.851
ALRECO0275	1.5	(+-.014)	3	(+-.024)	5.292
ALRECO0457	1.5	(+.014-0)	3	(+.024-0)	5.338
ALRECO0220	1.5	(+-.014)	3.5	(+-.074)	6.174
ALRECO0517	1.5	(+.014-0)	4	(+.034-0)	7.119
ALRECO0630	1.5	(+-.014)	4	(+-.034)	7.056
ALRECO0399	1.5	(+.014-0)	4.5	(+.034-0)	8.005
ALRECO0636	1.5	(+-.014)	4.5	(+-.034)	7.938
ALRECO0047	1.5	(+-.014)	5	(+-.034)	8.82
ALRECO1003	1.5	(+.014-0)	5	(+.034-0)	8.8913
ALRECO0254	1.5	(+-.014)	5.5	(+-.034)	9.702
ALRECO0539	1.5	(+.014-0)	5.5	(+.044-0)	9.7863
ALRECO0147	1.5	(+-.014)	6	(+-.044)	10.584
ALRECO0448	1.5	(+.014-0)	6	(+.044-0)	10.672
ALRECO0372	1.5	(+.014-0)	6.5	(+.044-0)	11.558
ALRECO0757	1.5	(+-.014)	6.5	(+-.044)	11.466
ALRECO0318	1.5	(+-.014)	7	(+-.044)	12.348
ALRECO0117	1.5	(+-.014)	8	(+-.054)	14.112
ALRECO1033	1.5	(+.038-0)	8	(+.108-0)	14.387
ALRECO0342	1.5	(+.014-0)	8.5	(+.054-0)	15.0764
ALRECO0523	1.5	(+-.014)	9	(+-.054)	15.876
ALRECO0251	1.5	(+-.024)	10	(+-.074)	17.64
ALRECO1034	1.5	(+.038-0)	10	(+.148-0)	17.995
ALRECO0599	1.5	(+-.024)	11	(+-.074)	19.404
ALRECO0846	1.5	(+-.024)	12	(+-.084)	21.168
ALRECO1035	1.5	(+.038-0)	12	(+.168-0)	21.587
ALRECO0891	1.5	(+-.024)	14	(+-.094)	24.696
ALRECO1036	1.5	(+.038-0)	14	(+.188-0)	25.177
ALRECO0187	1.75	(+-.014)	2	(+-.024)	4.116
ALRECO1004	1.75	(+.014-0)	2	(+.024-0)	4.157
ALRECO0524	1.75	(+-.014)	2.5	(+-.024)	5.145
ALRECO1074	1.75	(+.014-0)	2.5	(+.024-0)	5.1904
ALRECO0847	1.75	(+-.014)	3	(+-.024)	6.174
ALRECO1051	1.75	(+.014-0)	3	(+.024-0)	6.2235
ALRECO0221	1.75	(+-.014)	3.5	(+-.024)	7.203
ALRECO0262	1.75	(+-.014)	3.75	(+-.024)	7.7175
ALRECO0408	1.75	(+.014-0)	3.75	(+.034-0)	7.7835

* Not available in East Region, use Manifold Quality stock instead, see page 22.
† Flatness better than one-quarter commercial standards. Surface finish better than commercial standards.

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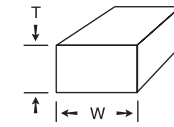


6061-T6511 Rectangular Aluminum Bar Manifold Quality

Extruded – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 211

Manifold quality bar features elevated mechanical properties along with tolerances for twist, straightness, and dimension that are one-half that of standard commercial bar. Additionally, all dimensional tolerances are on the plus side.

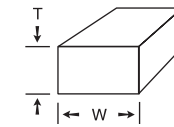
CBS Part No.	Thickness (Inches)	Thickness Tolerance	Width (Inches)	Width Tolerance	Pounds Per Foot
ALREC00429	1	(+.012-0)	3	(+.024-0)	3.563
ALREC00438	1	(+.012-0)	2.5	(+.024-0)	2.9748
ALREC00708	1	(+.012-0)	3.5	(+.024-0)	4.1478
ALREC00775	1	(+.012-0)	2	(+.024-0)	2.38
ALREC00984	1	(+.012-0)	4	(+.034-0)	4.7523
ALREC00998	1	(+.012-0)	5	(+.034-0)	5.936
ALREC00999	1	(+.012-0)	1.5	(+.014-0)	1.7846
ALREC01000	1	(+.012-0)	1.75	(+.024-0)	2.0845
ALREC01001	1	(+.012-0)	4.5	(+.034-0)	5.3439
ALREC00393	1.125	(+.012-0)	2.5	(+.024-0)	3.341
ALREC01077	1.125	(+.012-0)	2	(+.024-0)	2.6903
ALREC00347	1.25	(+.014-0)	3.75	(+.034-0)	5.5611
ALREC00495	1.25	(+.014-0)	4.5	(+.034-0)	6.6772
ALREC00600	1.25	(+.012-0)	3.5	(+.024-0)	5.1874
ALREC00670	1.25	(+.014-0)	5	(+.034-0)	7.4163
ALREC00791	1.25	(+.014-0)	5.5	(+.034-0)	8.1554
ALREC00969	1.25	(+.012-0)	2.5	(+.024-0)	3.71
ALREC00970	1.25	(+.012-0)	3	(+.024-0)	4.44
ALREC00974	1.25	(+.012-0)	2	(+.024-0)	2.972
ALREC01002	1.25	(+.014-0)	1.75	(+.014-0)	2.597
ALREC01063	1.25	(+.012-0)	6	(+.044-0)	8.8948
ALREC00342	1.5	(+.014-0)	8.5	(+.054-0)	15.0764
ALREC00372	1.5	(+.014-0)	6.5	(+.044-0)	11.558
ALREC00399	1.5	(+.014-0)	4.5	(+.034-0)	8.005
ALREC00415	1.5	(+.014-0)	2	(+.024-0)	3.566
ALREC00448	1.5	(+.014-0)	6	(+.044-0)	10.6724
ALREC00457	1.5	(+.014-0)	3	(+.024-0)	5.3628
ALREC00509	1.5	(+.014-0)	2.5	(+.024-0)	4.443
ALREC00517	1.5	(+.014-0)	4	(+.034-0)	7.119
ALREC00539	1.5	(+.014-0)	5.5	(+.044-0)	9.7863
ALREC01003	1.5	(+.014-0)	5	(+.034-0)	8.8913
ALREC00345	1.75	(+.014-0)	4.5	(+.034-0)	9.3332
ALREC00362	1.75	(+.014-0)	5.5	(+.034-0)	11.3994
ALREC00408	1.75	(+.014-0)	3.75	(+.034-0)	7.7835
ALREC01004	1.75	(+.014-0)	2	(+.024-0)	4.157
ALREC01051	1.75	(+.014-0)	3	(+.024-0)	6.2235
ALREC01074	1.75	(+.014-0)	2.5	(+.024-0)	5.1904
ALREC00363	2	(+.024-0)	2.5	(+.024-0)	5.9437
ALREC00400	2	(+.024-0)	6.5	(+.044-0)	15.432
ALREC00413	2	(+.024-0)	3	(+.024-0)	7.127
ALREC00414	2	(+.024-0)	4	(+.034-0)	9.505
ALREC00428	2	(+.024-0)	5	(+.034-0)	11.871
ALREC00496	2	(+.024-0)	8.5	(+.054-0)	20.175
ALREC00681	2	(+.024-0)	3.5	(+.024-0)	8.3098
ALREC00971	2	(+.024-0)	4.5	(+.034-0)	10.687
ALREC00972	2	(+.024-0)	6	(+.044-0)	14.2487
ALREC01068	2.25	(+.024-0)	4	(+.034-0)	10.6857
ALREC01125	2.25	(+.024-0)	2.75	(+.024-0)	7.3472
ALREC00540	2.5	(+.024-0)	3	(+.024-0)	8.8978
ALREC00678	2.5	(+.024-0)	8	(+.054-0)	23.7127
ALREC00679	2.5	(+.024-0)	4.5	(+.034-0)	13.3437
ALREC00753	2.5	(+.024-0)	5	(+.034-0)	14.82
ALREC00951	2.5	(+.024-0)	3.25	(+.024-0)	9.6363
ALREC00952	2.5	(+.024-0)	3.5	(+.024-0)	10.374
ALREC00953	2.5	(+.024-0)	4	(+.034-0)	11.8519



6063-T52 Rectangular Aluminum Bar

Extruded – 16 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 211

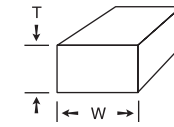
CBS Part No.	Thickness (Inches)	Thickness Tolerance	Width (Inches)	Width Tolerance	Pounds Per Foot
ALREC00077	0.125	(±.007)	1	(±.012)	0.1455
ALREC00079	0.125	(±.007)	1.5	(±.014)	0.2183
ALREC00285	0.125	(±.007)	0.5	(±.009)	0.0728
ALREC00326	0.125	(±.007)	4	(±.034)	0.582
ALREC00813	0.125	(±.007)	0.75	(±.010)	0.1091
ALREC00867	0.125	(±.007)	2.5	(±.024)	0.3638
ALREC00896	0.125	(±.007)	2	(±.024)	0.291
ALREC01102	0.125	(±.007)	1.75	(±.024)	0.2573
ALREC00498	0.187		1.25		0.2721
ALREC00060	0.1875	(±.007)	0.75	(±.010)	0.1637
ALREC00183	0.1875	(±.007)	1.25	(±.012)	0.2728
ALREC00327	0.1875	(±.007)	1	(±.012)	0.2183
ALREC00336	0.1875	(±.007)	1.5	(±.014)	0.3274
ALREC00837	0.1875	(±.007)	2	(±.024)	0.4365
ALREC00120	0.25	(±.008)	4	(±.034)	1.164
ALREC00121	0.25		1.25		0.3638
ALREC00122	0.25	(±.008)	2	(±.024)	0.582
ALREC00196	0.25	(±.008)	0.75	(±.010)	0.2183
ALREC00213	0.25	(±.008)	0.625	(±.009)	0.1819
ALREC00668	0.25	(±.008)	2.25	(±.024)	0.6548
ALREC00728	0.25	(±.008)	3	(±.024)	0.873
ALREC00826	0.25	(±.008)	1	(±.012)	0.2912
ALREC00866	0.25	(±.008)	1.5	(±.014)	0.4365
ALREC00887	0.25	(±.008)	1.25	(±.012)	0.3638
ALREC00085	0.375	(±.008)	1	(±.012)	0.4365
ALREC00797	0.375	(±.008)	1.25	(±.012)	0.5456
ALREC00814	0.375	(±.008)	2	(±.024)	0.873
ALREC00827	0.375	(±.008)	1.5	(±.014)	0.6548
ALREC00031	0.5	(±.009)	2	(±.024)	1.164
ALREC00143	0.5	(±.009)	1	(±.012)	0.582
ALREC00212	0.5	(±.009)	3	(±.024)	1.746
ALREC00223	0.5	(±.009)	4	(±.034)	2.328
ALREC00798	0.5	(±.009)	1.5	(±.014)	0.873
ALREC00159	0.75	(±.010)	4	(±.034)	3.492
ALREC00816	1	(±.012)	2	(±.024)	2.328



7075-T7351 Rectangular Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS-QQ-A-225

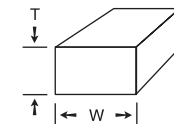
CBS Part No.	Thickness (Inches)	Thickness Tolerance	Width (Inches)	Width Tolerance	Pounds Per Foot
ALREC01057	0.5	(±.002)	1.25	(±.003)	0.7575
ALREC00018	1	(±.0025)	2	(±.005)	2.424
ALREC00657	1.5	(±.003)	4	(±.034)	7.272
ALREC00371	2		3		7.27
ALREC00089	3	(±.008)	6	(±.030)	21.816
ALREC00650	3		4.5		16.362



7075-T651 Rectangular Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS 4123, AMS-QQ-A-225, ASTM B 211

CBS Part No.	Thickness (Inches)	Thickness Tolerance	Width (Inches)	Width Tolerance	Pounds Per Foot
ALREC00065	0.5	(±.002)	1	(±.0025)	0.606
ALREC00776	0.5	(±.002)	2.5		1.515
ALREC00876	0.5	(±.002)	2	(±.003)	1.212
ALREC00622	0.75	(±.0025)	2.5		2.2725
ALREC00838	0.75	(±.0025)	2	(±.003)	1.818
ALREC00880	0.75	(±.0025)	1.5	(±.003)	1.3635
ALREC00129	1	(±.0025)	1.75		2.121
ALREC00138	1	(±.0025)	1.5	(±.003)	1.818
ALREC00385	1	(±.0025)	1.25	(±.003)	1.515
ALREC00525	1	(±.0025)	2	(±.005)	2.424
ALREC00805	1.25	(±.003)	3	(±.008)	4.545
ALREC00061	1.5	(±.003)	4	(±.010)	7.272
ALREC00257	1.5	(±.003)	3	(±.008)	5.454
ALREC00784	1.5	(±.003)	2.5	(±.008)	4.545
ALREC00066	2	(±.005)	3	(±.008)	7.272
ALREC00128	2.5	(±.008)	4	(±.010)	12.12

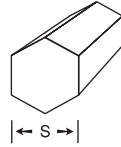


7075-T6511 Rectangular Aluminum Bar

Extruded – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 221

CBS Part No.	Thickness (Inches)	Thickness Tolerance	Width (Inches)	Width Tolerance	Pounds Per Foot
ALREC00490	0.5		2		1.212
ALREC00934	0.75	(±.010)	1	(±.012)	0.909
ALREC01071	1.75		4		8.484
ALREC01076	1.75		4.5		9.5445
ALREC00094	2		6		14.544
ALREC00433	3.625		4.625		20.3199
ALREC00422	3.75		6.5		29.5425
ALREC00568	4		7		33.936
ALREC00752	4		5		24.24

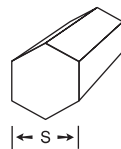
Hexagon Bar



2011-T3 Hexagon Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
ASTM B 211, ROHS Compliant

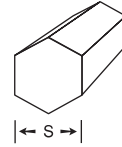
CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALHEX00187	0.1875	(±.002)	0.0373
ALHEX00057	0.25	(±.002)	0.0663
ALHEX00032	0.3125	(±.002)	0.1036
ALHEX00284	0.3125	(±.002)	0.1036
ALHEX00134	0.375	(±.002)	0.1492
ALHEX00285	0.375	(±.002)	0.1492
ALHEX00034	0.4375	(±.002)	0.203
ALHEX00035	0.5	(±.002)	0.2652
ALHEX00192	0.5625	(±.0025)	0.3356
ALHEX00286	0.5625	(±.0025)	0.3356
ALHEX00230	0.625	(±.0025)	0.4144
ALHEX00217	0.6875	(±.0025)	0.5014
ALHEX00017	0.75	(±.0025)	0.5967
ALHEX00162	0.875	(±.0025)	0.8122
ALHEX00047	0.9375	(±.0025)	0.9323
ALHEX00193	1	(±.0025)	1.0608
ALHEX00090	1.125	(±.003)	1.3426
ALHEX00287	1.125	(±.003)	1.3426
ALHEX00023	1.25	(±.003)	1.6575
ALHEX00074	1.375	(±.003)	2.0056
ALHEX00288	1.375	(±.003)	2.0056
ALHEX00033	1.5	(±.003)	2.3868
ALHEX00214	1.5	(±.003)	2.3868
ALHEX00289	1.5	(±.003)	2.3868
ALHEX00008	1.625	(±.005)	2.8012
ALHEX00048	1.75	(±.005)	3.2487



2024-T4 Hexagon Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS 4120, AMS-QQ-A-225, ASTM B 211

CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALHEX00229	0.25	(±.002)	0.0657
ALHEX00279	0.375	(±.002)	0.1463
ALHEX00025	0.5	(±.002)	0.2626



2024-T351 Hexagon Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS 4120, AMS-QQ-A-225, ASTM B 211

CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALHEX00058	0.5625	(±.0025)	0.3324
ALHEX00207	0.625	(±.0025)	0.4063
ALHEX00208	0.6875	(±.0025)	0.4965
ALHEX00036	0.75	(±.0025)	0.5909
ALHEX00231	0.8125	(±.0025)	0.6934
ALHEX00232	0.875	(±.0025)	0.8042
ALHEX00039	1	(±.0025)	1.0504
ALHEX00037	1.125	(±.003)	1.3294
ALHEX00211	1.1875	(±.003)	1.4666
ALHEX00040	1.25	(±.003)	1.6413
ALHEX00038	1.375	(±.003)	1.9859
ALHEX00119	1.4375	(±.003)	2.1491
ALHEX00028	1.5	(±.003)	2.3634
ALHEX00137	1.625	(±.005)	2.7463
ALHEX00065	1.6875	(±.005)	2.9616
ALHEX00081	1.8125	(±.005)	3.4166
ALHEX00053	1.875	(±.005)	3.6928
ALHEX00054	2	(±.005)	4.2016
ALHEX00016	2.25		5.265
ALHEX00104	2.4375		6.1791



2024-T851 Hexagon Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS 4120, AMS-QQ-A-225, ASTM B 211

CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALHEX00185	0.4375	(±.002)	0.1991
ALHEX00173	0.5	(±.002)	0.26
ALHEX00121	0.5625	(±.0025)	0.3291
ALHEX00118	0.625	(±.0025)	0.4063
ALHEX00010	0.6875	(±.0025)	0.4916
ALHEX00145	0.75	(±.0025)	0.585
ALHEX00105	0.8125	(±.0025)	0.6866
ALHEX00123	0.875	(±.0025)	0.7963
ALHEX00106	0.9375	(±.0025)	0.9141
ALHEX00066	1	(±.0025)	1.04
ALHEX00117	1.125	(±.003)	1.3163
ALHEX00077	1.25	(±.003)	1.625
ALHEX00220	1.375	(±.003)	1.9663
ALHEX00082	2	(±.005)	4.16
ALHEX00068	2.25	(±.008)	5.265
ALHEX00181	2.8125	(±.008)	8.2266



6061-T6 Hexagon Aluminum Bar

Extruded – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 221

CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALHEX00103	0.375	(±.008)	0.1433
ALHEX00003	0.9375	(±.010)	0.8958



6061-T651 Hexagon Aluminum Bar

Cold Finished – 12 Foot Mill Lengths
AMS 4117, AMS-QQ-A-225, ASTM B 211

CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALHEX00166	0.75	(±.0025)	0.5733
ALHEX00102	0.8125	(±.0025)	0.6728
ALHEX00178	1.0625	(±.003)	1.1506
ALHEX00101	1.25	(±.003)	1.5925
ALHEX00205	1.3125	(±.003)	1.7557
ALHEX00135	1.375	(±.003)	1.9269
ALHEX00061	1.5625	(±.005)	2.4883
ALHEX00186	2	(±.005)	4.0768
ALHEX00291	2.625		7.0229



6061-T651 Hexagon Aluminum Bar

Extruded – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 221

CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALHEX00273	0.4375	(±.005)	0.1951
ALHEX00031	0.5	(±.005)	0.2548
ALHEX00226	0.5625	(±.005)	0.3225
ALHEX00223	0.625	(±.005)	0.3981
ALHEX00020	0.6875	(±.005)	0.4817
ALHEX00018	0.75	(±.005)	0.5733
ALHEX00043	0.875	(±.005)	0.7803
ALHEX00026	1	(±.006)	1.0192
ALHEX00197	1.0625	(±.06)	1.1506
ALHEX00056	1.125	(±.006)	1.2899
ALHEX00148	1.1875	(±.005)	1.4372
ALHEX00215	1.25	(±.012)	1.5925
ALHEX00228	1.25	(±.006)	1.5925
ALHEX00195	1.3125	(±.005)	1.7557
ALHEX00029	1.375	(±.006)	1.925
ALHEX00042	1.5	(±.007)	2.2932
ALHEX00045	1.625	(±.007)	2.688
ALHEX00051	1.75	(±.007)	3.1213
ALHEX00206	2	(±.008)	4.0768
ALHEX00049	2.25	(±.012)	5.164
ALHEX00225	2.5	(±.012)	6.365
ALHEX00088	3	(±.012)	9.1728



6262-T6511 Hexagon Aluminum Bar

Extruded – 12 Foot Mill Lengths
ASTM B 221

CBS Part No.	Size (Inches)	Size Tolerance	Pounds Per Foot
ALHEX00234	0.4375		0.1951
ALHEX00004	0.625	(±.005)	0.3981
ALHEX00272	0.6875	(±.005)	0.4817
ALHEX00233	0.75	(±.005)	0.5733
ALHEX00221	0.875	(±.005)	0.7803
ALHEX00052	1	(±.006)	1.0192
ALHEX00142	1.125	(±.006)	1.2899
ALHEX00209	1.5	(±.007)	2.2932
ALHEX00027	1.625	(±.007)	2.6913
ALHEX00224	1.75		3.12
ALHEX00283	2.5	(±.012)	6.37

*14 Foot Lengths

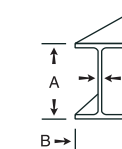
I Beam



6061-T6 Aluminum I Beam

Extruded, American Standard
25 Foot Mill Lengths
ASTM B 221

CBS Part No.	Side B (Inches)	Thickness (Inches)	Side A (Inches)	Pounds Per Foot
ALI00023	2.33	0.17	3	1.963
ALI00006	2.66	0.19	4	2.644
ALI00012	3	0.21	5	3.43
ALI00010	3.33	0.23	6	4.302
ALI00004	4	0.27	8	6.348
ALI00011	2.796	0.326	4	3.283
ALI00026	3.443	0.343	6	5.099
ALI00003	2.509	0.349	3	2.591
ALI00030	3.284	0.494	5	5.098

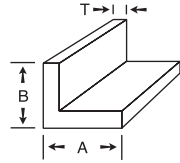


6061-T6 Aluminum I Beam

Extruded, Aluminum Association
25 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 221

CBS Part No.	Side B (Inches)	Thickness (Inches)	Side A (Inches)	Pounds Per Foot
ALI00002	4	0.23	6	4.159
ALI00005	4	0.21	6	4.692
ALI00020	4	0.19	6	4.03
ALI00009	5	0.25	8	7.023
ALI00021	5	0.23	8	6.181
ALI00007	6	0.29	10	10.286
ALI00025	6	0.25	10	8.646
ALI00027	7	0.31	12	14.292

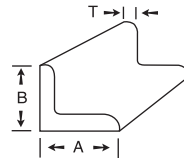
Angle



6063-T52 Aluminum Angle

Extruded, Sharp Corner
16 Foot Mill Lengths
ASTM B 221

CBS Part No.	Thickness (Inches)	Leg A (Inches)	Leg B (Inches)	Pounds Per Foot
ALANG00037	0.0625	1.5	1.5	0.219
ALANG00052	0.0625	0.75	0.75	0.108
ALANG00110	0.0625	0.5	0.375	0.061
ALANG00111	0.0625	0.5	0.5	0.07
ALANG00005	0.125	0.5	0.5	0.131
ALANG00013	0.125	0.625	0.625	0.168
ALANG00019	0.125	2	0.5	0.355
ALANG00022	0.125	1	0.75	0.244
ALANG00026	0.125	1	0.5	0.2
ALANG00028	0.125	1.75	1.75	0.506
ALANG00030	0.125	1.25	1.25	0.356
ALANG00031	0.125	2	1.5	0.506
ALANG00032	0.125	2.5	2.5	0.731
ALANG00045	0.125	1	1	0.281
ALANG00046	0.125	1.5	1	0.356
ALANG00051	0.125	1.5	0.75	0.319
ALANG00055	0.125	4	4	1.181
ALANG00056	0.125	1.5	1.5	0.431
ALANG00057	0.125	4	2	0.881
ALANG00061	0.125	2	2	0.581
ALANG00080	0.125	0.75	0.5	0.169
ALANG00093	0.125	0.75	0.75	0.206
ALANG00104	0.125	3	3	0.881
ALANG00105	0.125	3	2	0.731
ALANG00041	0.1875	1.25	1.25	0.519
ALANG00096	0.1875	3	3	1.308
ALANG00114	0.1875	2	2	0.857
ALANG00116	0.1875	1.5	1.5	0.633
ALANG00009	0.25	1.5	1.5	0.809
ALANG00014	0.25	3	2	1.424
ALANG00039	0.25	2	2	1.124
ALANG00083	0.25	3	3	1.724

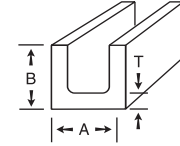


6061-T6 Aluminum Angle

Extruded, American Standard
25 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 308

CBS Part No.	Thickness (Inches)	Leg A (Inches)	Leg B (Inches)	Pounds Per Foot
ALANG00121	0.125	0.75	0.75	0.201
ALANG00089	0.125	1	1	0.275
ALANG00020	0.125	1.25	1.25	0.343
ALANG00029	0.125	1.5	1.25	0.387
ALANG00060	0.125	1.5	1.5	0.423
ALANG00011	0.125	1.75	1.75	0.497
ALANG00004	0.125	2	2	0.577
ALANG00113	0.125	2	1.5	0.496
ALANG00082	0.1875	1	1	0.4
ALANG00016	0.1875	1.25	1.25	0.51
ALANG00062	0.1875	1.5	1.5	0.619
ALANG00038	0.1875	1.75	1.25	0.621
ALANG00102	0.1875	2	2	0.85
ALANG00109	0.1875	2	1.5	0.731
ALANG00008	0.1875	2.5	2	0.961
ALANG00101	0.1875	2.5	2.5	1.07
ALANG00084	0.1875	3	3	1.275
ALANG00122	0.1875	3	2	1.071
ALANG00117	0.188	2.5	1.5	0.85
ALANG00097	0.25	1	1	0.514
ALANG00003	0.25	1.25	1.25	0.656
ALANG00068	0.25	1.5	1.25	0.734
ALANG00086	0.25	1.5	1.5	0.809
ALANG00035	0.25	1.75	1.75	0.956
ALANG00042	0.25	2	1.5	0.956
ALANG00119	0.25	2	2	1.11
ALANG00018	0.25	2.5	1.5	1.11
ALANG00091	0.25	2.5	2.5	1.404
ALANG00107	0.25	2.5	2	1.257
ALANG00099	0.25	3	2	1.403
ALANG00112	0.25	3	3	1.684
ALANG00010	0.25	3.5	3.5	2.03
ALANG00124	0.25	3.5	2.5	1.684
ALANG00058	0.25	4	4	2.283
ALANG00098	0.25	4	3	1.988
ALANG00902	0.25	4	2	1.726
ALANG00087	0.375	2	2	1.606
ALANG00095	0.375	2.5	2.5	2.047
ALANG00040	0.375	3	2	2.046
ALANG00054	0.375	3	3	2.474
ALANG00049	0.375	3.5	3.5	2.926
ALANG00047	0.375	4	3	2.926
ALANG00100	0.375	4	4	3.366
ALANG00053	0.375	5	3	3.348
ALANG00088	0.375	5	5	4.237
ALANG00103	0.375	6	4	4.237
ALANG00106	0.375	6	6	5.119
ALANG00017	0.5	3	3	3.227
ALANG00043	0.5	4	3	3.826
ALANG00120	0.5	4	4	4.414
ALANG00025	0.5	5	3.5	4.704
ALANG00108	0.5	5	5	5.578
ALANG00034	0.5	6	6	6.754
ALANG00115	0.5	6	4	5.578
ALANG00012	0.5	8	8	9.141
ALANG00914	0.625	6	6	8.352
ALANG00118	0.75	6	6	10.038
ALANG00036	0.75	8	6	11.679

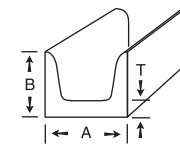
Channel



6061-T6 Aluminum Channel

Extruded, Aluminum Association
25 Foot Mill Lengths
ASTM B 221, ASTM B 308

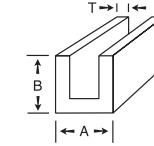
CBS Part No.	Leg A (Inches)	Thickness (Inches)	Leg B (Inches)	Pounds Per Foot
ALCHA00006	2	0.17	1.25	1.071
ALCHA00013	2	0.13	1	0.557
ALCHA00076	3	0.17	1.75	1.597
ALCHA00077	3	0.13	1.5	1.136
ALCHA00017	4	0.15	2	1.738
ALCHA00072	4	0.19	2.25	2.331
ALCHA00032	5	0.19	2.75	3.089
ALCHA00073	5	0.15	2.25	2.212
ALCHA00033	6	0.21	3.25	4.03
ALCHA00039	6	0.17	2.5	2.834
ALCHA00069	7	0.17	2.75	3.205
ALCHA00071	7	0.21	3.5	4.715
ALCHA00014	8	0.25	3.75	5.789
ALCHA00066	8	0.19	3	4.147
ALCHA00040	9	0.29	4	6.97
ALCHA00008	10	0.31	4.25	8.36
ALCHA00070	10	0.25	3.5	6.136
ALCHA00004	12	0.29	4	8.274
ALCHA00029	12	0.35	5	11.822



6061-T6 Aluminum Channel

Extruded, American Standard
25 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 308

CBS Part No.	Leg A (Inches)	Thickness (Inches)	Leg B (Inches)	Pounds Per Foot
ALCHA00011	3	0.258	1.498	1.729
ALCHA00019	3	0.17	1.41	1.417
ALCHA00058	3	0.356	1.596	2.074
ALCHA00027	4	0.32	1.72	2.504
ALCHA00042	4	0.18	1.58	1.846
ALCHA00059	4	0.247	1.647	2.161
ALCHA00061	5	0.325	1.885	3.108
ALCHA00083	5	0.19	1.75	2.316
ALCHA00005	6	0.314	2.034	3.631
ALCHA00026	6	0.438	2.157	4.498
ALCHA00028	6	0.225	1.945	3.002
ALCHA00080	6	0.2	1.92	2.826
ALCHA00053	7	0.314	2.194	4.232
ALCHA00082	7	0.23	2.11	3.541
ALCHA00024	8	0.488	2.527	6.484
ALCHA00041	8	0.25	2.29	4.252
ALCHA00018	10	0.526	2.886	8.641
ALCHA00043	10	0.24	2.6	5.278
ALCHA00003	12	0.51	3.17	10.374
ALCHA00023	12	0.3	2.96	7.411

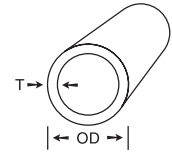


6063-T52 Aluminum Channel

Extruded — 16 Foot Mill Lengths
ASTM B 221

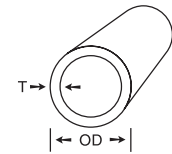
CBS Part No.	Leg A (Inches)	Thickness (Inches)	Leg B (Inches)	Pounds Per Foot
ALCHA00012	0.75	0.125	0.75	0.3
ALCHA00031	0.75	0.125	0.375	0.187
ALCHA00057	1	0.09	1	0.295
ALCHA00064	1	0.125	0.5	0.263
ALCHA00085	1	0.125	1	0.413
ALCHA00021	1.25	0.125	1.25	0.526
ALCHA00062	1.25	0.125	0.75	0.374
ALCHA00049	1.5	0.125	1.5	0.637
ALCHA00015	1.75	0.125	1	0.524
ALCHA00034	1.75	0.125	0.75	0.45
ALCHA00045	2	0.25	2	1.667
ALCHA00063	2	0.125	0.5	0.413
ALCHA00074	2	0.125	2	0.863
ALCHA00079	2	0.125	1	0.564
ALCHA00046	2.5	0.125	1.5	0.787
ALCHA00047	3	0.125	1	0.713
ALCHA00067	3	0.125	0.5	0.563
ALCHA00022	4	0.125	1	0.862

Round Tube



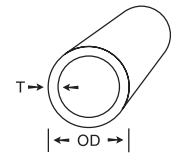
1100-F Round Aluminum Tube
Extruded Seamless — 12 Foot Mill Lengths
ASTM B 210

CBS Part No.	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00344	0.5	0.05	0.0831



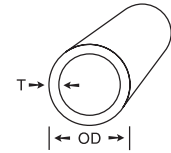
2024-T3 Round Aluminum Tube
Extruded Drawn Seamless — 12 Foot Mill Lengths
ASTM B 210

CBS Part No.	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00458	0.5	0.12	0.172
ALTUB00525	1.125	0.049	0.1988
ALTUB00281	1.25	0.058	0.2606
ALTUB00459	1.25	0.12	0.5112



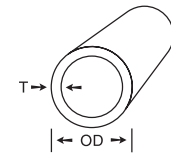
3003-H14 Round Aluminum Tube
Extruded Drawn — 12 Foot Mill Lengths
ASTM B 210, ASTM B 483

CBS Part No.	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00005	0.25	0.035	0.0281
ALTUB00488	0.4375	0.035	0.0526



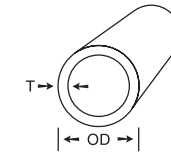
6061-T6511 Round Aluminum Tube
Extruded Structural — Random Mill Lengths
AMS-QQ-A-200, ASTM B 241

CBS Part No.	OD (Inches)	OD Tolerance	Thickness (Inches)	Pounds Per Foot
ALTUB00263	1.156	(+.015-.01)	0.25	0.8197
ALTUB00330	1.5		0.25	1.1546
ALTUB00497	2		0.5	2.771
ALTUB00490	2.25	(±.015)	0.25	1.8473
ALTUB00474	2.5		0.75	4.8492
ALTUB00475	2.5		0.3125	2.5256
ALTUB00499	2.5		0.375	2.944
ALTUB00500	2.5		0.5	3.695
ALTUB00511	2.75		0.75	5.541
ALTUB00067	2.781	(±.031)	0.156	1.513
ALTUB00119	2.781		0.156	1.5129
ALTUB00358	2.781		0.156	1.513
ALTUB00071	3		0.375	3.6369
ALTUB00224	3		0.75	6.2346
ALTUB00501	3		0.5	4.618
ALTUB00495	3.25	(±.015)	0.5	5.0801
ALTUB00078	3.5		0.375	4.3296
ALTUB00107	3.5		0.75	7.6201
ALTUB00502	3.5		0.125	1.558
ALTUB00487	3.75		0.75	8.3129
ALTUB00494	4	(±.025)	0.5	6.4656
ALTUB00503	4		0.375	5.022
ALTUB00504	4.25		0.5	6.927
ALTUB00505	4.75		0.5	7.85
ALTUB00155	5.5		0.75	13.162
ALTUB00506	5.5		0.25	4.849
ALTUB00507	6		0.375	7.793
ALTUB00510	6		0.5	7.158
ALTUB00508	6.5		0.5	11.084
ALTUB00509	7		0.5	12.007
ALTUB00496	8	(±.045)	0.5	13.8548



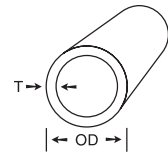
6061-T6 Round Aluminum Tube
Extruded Drawn Seamless — 12 Foot Mill Lengths
AMS 4082, AMS-WW-T-700, ASTM B 210

CBS Part No.	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00126	0.25	0.035	0.0278
ALTUB00365	0.25	0.049	0.0364
ALTUB00115	0.375	0.035	0.044
ALTUB00123	0.375	0.049	0.059
ALTUB00151	0.375	0.065	0.0744
ALTUB00025	0.5	0.065	0.1045
ALTUB00133	0.5	0.049	0.0816
ALTUB00290	0.5	0.12	0.1685
ALTUB00364	0.5	0.083	0.1279
ALTUB00402	0.5	0.035	0.0601
ALTUB00009	0.625	0.035	0.0763
ALTUB00129	0.625	0.065	0.1345
ALTUB00311	0.625	0.058	0.1215
ALTUB00017	0.75	0.065	0.1645
ALTUB00047	0.75	0.083	0.2045
ALTUB00060	0.75	0.125	0.2886
ALTUB00255	0.75	0.035	0.0925
ALTUB00340	0.75	0.049	0.1269
ALTUB00002	0.875	0.035	0.1086
ALTUB00020	0.875	0.058	0.1751
ALTUB00101	0.875	0.065	0.1945
ALTUB00018	1	0.035	0.1248
ALTUB00029	1	0.125	0.4041
ALTUB00059	1	0.065	0.2245
ALTUB00086	1	0.058	0.2018
ALTUB00197	1	0.12	0.398
ALTUB00378	1	0.083	0.2812
ALTUB00387	1	0.049	0.1722
ALTUB00130	1.125	0.058	0.2286
ALTUB00256	1.125	0.049	0.1948
ALTUB00021	1.25	0.065	0.2846
ALTUB00140	1.25	0.083	0.3579
ALTUB00250	1.25	0.058	0.2554
ALTUB00518	1.25	0.035	0.1571
ALTUB00012	1.5	0.049	0.2627
ALTUB00084	1.5	0.125	0.635
ALTUB00381	1.5	0.065	0.3446
ALTUB00146	1.75	0.065	0.4047
ALTUB00251	1.875	0.058	0.389
ALTUB00332	2	0.049	0.3532
ALTUB00352	2	0.065	0.4647
ALTUB00235	2.25	0.065	0.5247
ALTUB00519	2.25	0.049	0.3985
ALTUB00094	2.5	0.065	0.5848
ALTUB00022	3	0.065	0.7048



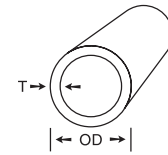
6061-T6511 Round Aluminum Tube
Extruded Seamless — 12 and 24 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 241

CBS Part No.	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00337	1.375	0.312	1.2253
ALTUB00011	1.5	0.25	1.1546
ALTUB00351	1.5	0.125	0.635
ALTUB00102	2	0.375	2.2514
ALTUB00354	2	0.5	2.7668
ALTUB00355	2	0.25	1.6164
ALTUB00401	2	0.125	0.8659
ALTUB00367	2.25	0.25	1.848
ALTUB00413	2.25	0.5	3.2328
ALTUB00131	2.5	0.5	3.6946
ALTUB00404	2.5	0.25	2.0782
ALTUB00171	2.75	0.5	4.1564
ALTUB00177	2.75	0.25	2.3091
ALTUB00087	3	0.25	2.54
ALTUB00399	3	0.5	4.6183
ALTUB00100	3.25	0.75	6.9274
ALTUB00103	3.25	0.375	3.9832
ALTUB00476	3.25	0.25	2.7678
ALTUB00353	3.5	0.5	5.5419
ALTUB00357	3.5	0.25	3.0019
ALTUB00371	3.75	1	10.1602
ALTUB00001	4	0.5	6.4656
ALTUB00035	4	0.25	3.4637
ALTUB00147	4	1	11.0838
ALTUB00393	4	0.75	9.0056
ALTUB00088	4.187	0.906	10.9825
ALTUB00061	4.5	0.25	3.9255
ALTUB00144	4.5	1	12.9311
ALTUB00315	4.5	0.5	7.3892
ALTUB00317	4.5	0.75	10.3911
ALTUB00049	5	0.25	4.3873
ALTUB00309	5	0.75	11.7765
ALTUB00407	5	0.5	8.3129
ALTUB00013	5.5	1	16.6257
ALTUB00016	6	0.75	14.5475
ALTUB00095	6	0.25	5.311
ALTUB00104	6	0.5	10.1602
ALTUB00215	6	1.25	21.9367
ALTUB00361	6	1	18.473
ALTUB00046	7	0.75	17.3184
ALTUB00062	7	1	22.1676
ALTUB00242	7.25	1.125	25.4581
ALTUB00356	7.5	1	24.0149
ALTUB00320	8	1	25.8622
ALTUB00138	5	1	14.7784
ALTUB00349	5.5	0.5	9.2365
ALTUB00013	5.5	1	16.6257
ALTUB00095	6	0.25	5.311
ALTUB00104	6	0.5	10.1602
ALTUB00016	6	0.75	14.5475
ALTUB00361	6	1	18.473
ALTUB00215	6	1.25	21.9367
ALTUB00136	6	2	29.5568
ALTUB00135	6.25	0.75	15.2402
ALTUB00034	6.5	1	20.3203
ALTUB00046	7	0.75	17.3184
ALTUB00062	7	1	22.1676
ALTUB00242	7.25	1.125	25.4581
ALTUB00356	7.5	1	24.0149
ALTUB00320	8	1	25.8622



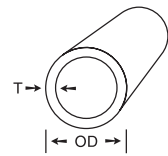
6061-T6 Round Aluminum Tube
Extruded Seamless – 12 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 241

CBS Part No.	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00416	2.5	0.065	0.5848
ALTUB00427	2.655	0.505	4.22
ALTUB00316	3.625	0.4375	5.1522
ALTUB00164	3.75	0.5	6.0037
ALTUB00418	4.775	0.375	6.0961
ALTUB00007	5	1	14.7784
ALTUB00052	6.25	0.5	10.622
ALTUB00195	6.475	0.4875	10.7842
ALTUB00153	6.5	0.75	15.933
ALTUB00193	6.5	1	20.3203
ALTUB00514	13.5	1.325	59.601
ALTUB00308	14.25	0.469	32.789



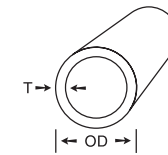
6063-T52 Round Aluminum Tube
Extruded – Random Mill Lengths
ASTM B 221

CBS Part No.	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00019	1.5	0.125	0.6285
ALTUB00377	2	0.125	0.8571
ALTUB00383	2.5	0.125	1.0856
ALTUB00080	3	0.125	1.3142
ALTUB00182	3	0.188	1.9332
ALTUB00070	3.5	0.125	1.5428
ALTUB00092	4	0.125	1.7713
ALTUB00143	4	0.188	2.6207
ALTUB00117	5	0.125	2.2284
ALTUB00069	6	0.125	2.6855



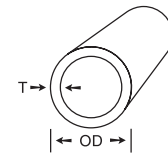
6061-T6 Round Aluminum Tube
Extruded Structural – 24 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 241

CBS Part No.	OD (Inches)	Thickness (Inches)	Thickness Tolerance	Pounds Per Foot
ALTUB00089	0.75	0.125		0.2886
ALTUB00075	1	0.25		0.6927
ALTUB00307	1	0.125		0.4041
ALTUB00008	1.25	0.25		0.9237
ALTUB00373	1.25	0.125		0.5196
ALTUB00397	1.25	0.188		0.7376
ALTUB00039	1.5	0.125		0.635
ALTUB00288	1.625	0.2075	(±.008)	1.0867
ALTUB00205	1.63	0.125	(±.02)	0.695
ALTUB00037	1.75	0.25	(±.011)	1.3855
ALTUB00200	1.75	0.1775	(±.008)	1.0312
ALTUB00226	1.75	0.1125	(±.008)	0.6806
ALTUB00385	1.75	0.125		0.7505
ALTUB00099	2	0.25		1.6164
ALTUB00390	2	0.125		0.8659
ALTUB00517	2.25	0.375	(±.015)	2.5978
ALTUB00090	2.5	0.25		2.0782
ALTUB00348	2.625	0.5		3.9255
ALTUB00457	2.625	0.375		3.1173
ALTUB00082	3	0.125		1.3277
ALTUB00342	3	0.25		2.54
ALTUB00484	3.25	0.25		2.771
ALTUB00121	4	0.125		1.7896
ALTUB00523	4	0.625		7.7933
ALTUB00492	4.5	0.5		7.3892
ALTUB00524	4.5	0.625		8.9479
ALTUB00455	5	0.5		8.3129
ALTUB00456	5.5	0.5		9.2365
ALTUB00493	6	0.5		10.1602
ALTUB00165	8.5	0.5		14.7784



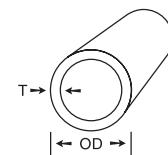
6063-T6 Round Aluminum Tube
Extruded – Random Mill Lengths
ASTM B 221

CBS Part No.	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00028	0.54	0.088	0.1455
ALTUB00297	0.725	0.074	0.1762
ALTUB00040	0.84	0.109	0.2944
ALTUB00003	1.315	0.133	0.5808
ALTUB00466	2.375	0.154	1.264
ALTUB00398	2.875	0.203	2.004
ALTUB00370	3.5	0.216	2.6207
ALTUB00396	4	0.226	3.1191
ALTUB00469	4.5	0.237	3.733



6063-T832 Round Aluminum Tube
Extruded Drawn Seamless – Random Mill Lengths
ASTM B 210

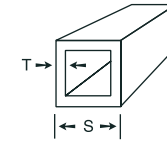
CBS Part No.	OD (Inches)	OD Tolerance	Thickness (Inches)	Thickness Tolerance	Pounds Per Foot
ALTUB00411	0.75	(±.004)	0.035	(±.002)	0.0924



6262-T6511 Round Aluminum Tube
Extruded Seamless – Random Mill Lengths
ASTM B 221

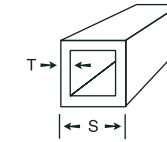
CBS Part No.	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00343	1.375	0.1875	0.8142

Square Tube



6063-T52 Square Aluminum Tube
Extruded – 21 Foot Mill Lengths
ASTM B 221

CBS Part No.	Size (Inches)	Thickness (Inches)	Pounds Per Foot
ALSQT00030	0.5	0.062	0.1261
ALSQT00008	0.75	0.125	0.3628
ALSQT00063	0.75	0.062	0.1981
ALSQT00001	1	0.062	0.2701
ALSQT00020	1	0.125	0.508
ALSQT00013	1.25	0.125	0.6531
ALSQT00002	1.5	0.125	0.7982
ALSQT00009	1.5	0.062	0.4141
ALSQT00070	1.5	0.125	0.7982
ALSQT00054	1.75	0.125	0.9434
ALSQT00017	2	0.125	1.0885
ALSQT00065	2	0.25	2.0318
ALSQT00025	3	0.125	1.669
ALSQT00052	3	0.25	3.1929
ALSQT00023	4	0.125	2.2496
ALSQT00053	4	0.25	4.354
ALSQT00059	5	0.125	2.778
ALSQT00058	6	0.125	3.4106
ALSQT00029	8	0.188	6.8208



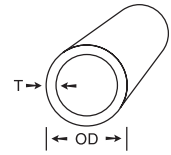
6061-T6 Square Aluminum Tube
Extruded – 24 Foot Mill Lengths
AMS-QQ-A-200, ASTM B 221

CBS Part No.	Size (Inches)	Thickness (Inches)	Description	Pounds Per Foot
ALSQT00060	0.75	0.062		0.2001
ALSQT00062	0.75	0.125		0.3666
ALSQT00043	1	0.125		0.5132
ALSQT00047	1	0.125		0.5132
ALSQT00139	1.25	0.125		0.66
ALSQT00019	1.25	0.125		0.6598
ALSQT00014	1.5	0.1875		1.1547
ALSQT00026	1.5	0.125		0.8065
ALSQT00027	1.5	0.125		0.8065
ALSQT00048	1.75	0.125		0.9531
ALSQT00003	2	0.125		1.0997
ALSQT00011	2	0.1875		1.5946
ALSQT00016	2	0.125		1.0997
ALSQT00057	2	0.25		2.0528
ALSQT00066	2	0.125		1.0997
ALSQT00073	2	0.125		1.036
ALSQT00022	2.5	0.125		1.3788
ALSQT00051	2.5	0.25		2.6393
ALSQT00056	3	0.1875		2.4744
ALSQT00061	3	0.25		3.2258
ALSQT00018	4	0.25		4.3989
ALSQT00028	4	0.5		8.2112
ALSQT00040	4	0.125		2.33
ALSQT00042	4	0.1875		3.3541
ALSQT00055	4	0.375		6.3784
ALSQT00007	5	0.25		5.5719
ALSQT00005	6	0.188		5.1269
ALSQT00021	6	0.5		12.9034
ALSQT00049	6	0.25		6.745
ALSQT00068	8	0.25		9.021
ALSQT00069	8	0.5		17.46



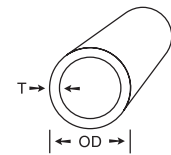
Precision processing is a hallmark of our service.

Round Pipe



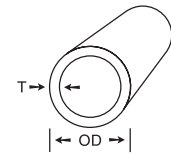
6061-T6 Schedule 40 Aluminum Pipe
Extruded Seamless – 20 Foot Mill Lengths
ASTM B 241

CBS Part No.	Nominal Pipe Size	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00395	0.25	0.54	0.088	0.147
ALTUB00362	1	1.315	0.133	0.5808
ALTUB00068	1.25	1.66	0.14	0.7862
ALTUB00376	2	2.375	0.154	1.2637
ALTUB00014	2.5	2.875	0.203	2.004
ALTUB00124	3	3.5	0.216	2.6207
ALTUB00108	3.5	4	0.226	3.1512
ALTUB00066	4	4.5	0.237	3.7328
ALTUB00386	6	6.625	0.28	6.5638



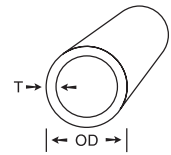
6063-T6 Schedule 40 Aluminum Pipe
Extruded Seamless – 20 Foot Mill Lengths
ASTM B 221, ASTM B 241

CBS Part No.	Nominal Pipe Size	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00466	2	2.375	0.154	1.264
ALTUB00370	3	3.5	0.216	2.6207
ALTUB00469	4	4.5	0.237	3.733



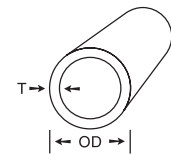
6063-T6 Schedule 40 Aluminum Pipe
Extruded Structural – 20 Foot Mill Lengths
ASTM B 429

CBS Part No.	Nominal Pipe Size	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00028	0.25	0.54	0.088	0.1455
ALTUB00040	0.5	0.84	0.109	0.2944
ALTUB00003	1	1.315	0.133	0.5808
ALTUB00398	2.5	2.875	0.203	2.004
ALTUB00396	3.5	4	0.226	3.1191



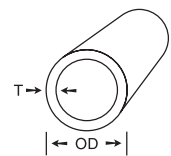
6061-T6 Schedule 40 Aluminum Pipe
Extruded Structural – 20 Foot Mill Lengths
ASTM B 429

CBS Part No.	Nominal Pipe Size	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00114	0.5	0.84	0.109	0.2944
ALTUB00065	0.75	1.05	0.113	0.3912
ALTUB00379	1	1.315	0.133	0.5808
ALTUB00306	1.25	1.66	0.14	0.7862
ALTUB00043	1.5	1.9	0.145	0.94
ALTUB00521	1.5	1.9	0.145	0.94
ALTUB00299	2	2.375	0.154	1.2637
ALTUB00106	2.5	2.875	0.203	2.004
ALTUB00522	2.5	2.875	0.203	2.004
ALTUB00400	3	3.5	0.216	2.6207
ALTUB00380	3.5	4	0.226	3.1512
ALTUB00298	4	4.5	0.237	3.7328
ALTUB00336	5	5.563	0.258	5.0568



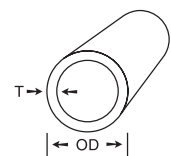
6101-T61 Schedule 40 Aluminum Pipe
Extruded – 20 Foot Mill Lengths
ASTM B 317

CBS Part No.	Nominal Pipe Size	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00064	1	1.315	0.133	0.5749
ALTUB00374	1.5	1.9	0.145	0.9306
ALTUB00120	2	2.375	0.154	1.2508



6061-T6 Schedule 80 Aluminum Pipe
Extruded Structural – 20 Foot Mill Lengths
ASTM B 429

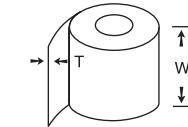
CBS Part No.	Nominal Pipe Size	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00030	1.5	1.9	0.2	1.2562
ALTUB00122	2	2.375	0.218	1.7373
ALTUB00073	2.5	2.875	0.276	2.65



6101-T61 Schedule 80 Aluminum Pipe
Extruded – 20 Foot Mill Lengths:
ASTM B 317

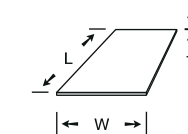
CBS Part No.	Nominal Pipe Size	OD (Inches)	Thickness (Inches)	Pounds Per Foot
ALTUB00243	1.5	1.9	0.2	1.2433
ALTUB00453	2	2.375	0.218	1.737
ALTUB00329	2.5	2.875	0.276	2.65
ALTUB00024	3	3.5	0.3	3.547
ALTUB00392	3.5	4	0.318	4.325
ALTUB00454	4	4.5	0.337	5.183

Sheet & Coil



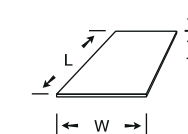
1100-H14 Aluminum Coil
ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Pounds Square Foot
ALFLR02438	0.19	72	
ALFLR02589	0.248	72	
ALFLR02978	0.249	48	



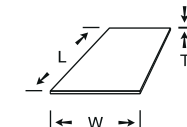
1100-H14 Aluminum Sheet
ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01252	0.032	48	144	
ALFLR01253	0.04	48	144	
ALFLR01254	0.05	48	144	
ALFLR01256	0.063	48	144	
ALFLR01258	0.09	48	144	
ALFLR02439	0.09	48	88	
ALFLR02972	0.09	48	96	
ALFLR01259	0.125	48	96	
ALFLR01260	0.125	48	120	
ALFLR01261	0.125	48	144	
ALFLR01263	0.19	48	144	



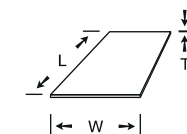
1100-O Aluminum Sheet
ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01239	0.032	36	96	
ALFLR01240	0.04	48	144	
ALFLR01251	0.05	48	144	
ALFLR01243	0.063	48	144	
ALFLR01244	0.08	48	144	
ALFLR01246	0.09	48	144	
ALFLR01247	0.125	48	96	
ALFLR01249	0.125	48	144	



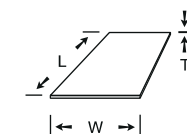
2024-O Bare Aluminum Sheet
AMS 4035, AMS-QQ-A-250, ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR03258	0.02	48	144	
ALFLR03229	0.025	48	144	
ALFLR03316	0.04	48	144	
ALFLR01572	0.063	48	144	
ALFLR01573	0.125	48	144	



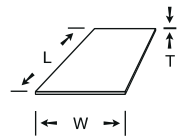
2024-O Clad Aluminum Sheet
AMS 4040, AMS-QQ-A-250, ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR03139	0.025	48	144	
ALFLR02584	0.032	48	144	
ALFLR02585	0.04	48	144	
ALFLR01751	0.05	48	144	
ALFLR01575	0.063	48	144	
ALFLR01576	0.071	48	144	
ALFLR01577	0.08	48	144	
ALFLR02998	0.09	48	144	
ALFLR03000	0.125	48	144	



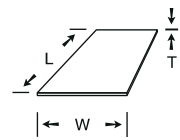
2024-T3 Bare Aluminum Sheet
AMS 4037, AMS-QQ-A-250, ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR03255	0.016	48	144	
ALFLR01578	0.02	48	144	
ALFLR01579	0.025	48	144	
ALFLR01580	0.032	48	144	
ALFLR01581	0.04	48	144	
ALFLR01582	0.05	48	144	
ALFLR01583	0.063	48	144	
ALFLR01584	0.071	48	144	
ALFLR01585	0.08	48	144	
ALFLR01586	0.09	48	144	
ALFLR01587	0.1	48	144	
ALFLR01588	0.125	48	144	
ALFLR01589	0.16	48	144	
ALFLR01590	0.19	48	144	



2024-T3 Clad Aluminum Sheet
AMS 4041, AMS-QQ-A-250, ASTM B 209

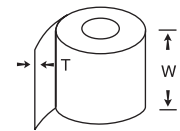
CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01591	0.016	48	144	
ALFLR01592	0.02	48	144	
ALFLR01593	0.025	48	144	
ALFLR01594	0.032	48	144	
ALFLR01595	0.04	48	144	
ALFLR01596	0.05	48	144	
ALFLR01597	0.063	48	144	
ALFLR01598	0.071	48	144	
ALFLR01599	0.08	48	144	
ALFLR01600	0.09	48	144	
ALFLR01601	0.1	48	144	
ALFLR01602	0.125	48	144	



3003-H14 Aluminum Sheet
ASTM B 209

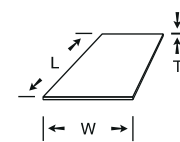
CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01313	0.016	36	96	
ALFLR01314	0.02	36	96	
ALFLR01316	0.025	36	96	
ALFLR01317	0.025	48	96	
ALFLR01318	0.032	36	96	
ALFLR01322	0.032	48	120	
ALFLR01323	0.032	48	144	
ALFLR01326	0.04	36	96	
ALFLR01328	0.04	48	96	
ALFLR01329	0.04	48	120	
ALFLR01330	0.04	48	144	
ALFLR01331	0.05	36	96	
ALFLR01333	0.05	48	96	
ALFLR01334	0.05	48	120	
ALFLR01336	0.05	48	144	
ALFLR01339	0.063	36	96	
ALFLR01341	0.063	48	96	
ALFLR01343	0.063	48	120	
ALFLR01344	0.063	48	144	
ALFLR01347	0.08	36	96	
ALFLR01349	0.08	48	96	
ALFLR01350	0.08	48	120	
ALFLR01351	0.08	48	144	
ALFLR01352	0.08	60	120	
ALFLR01353	0.08	60	144	
ALFLR02442	0.08	48	120	
ALFLR03138	0.08	48	96	
ALFLR01354	0.09	36	96	
ALFLR01355	0.09	48	96	
ALFLR01356	0.09	48	120	
ALFLR01359	0.09	60	120	
ALFLR01361	0.09	60	144	
ALFLR01362	0.09	48	144	
ALFLR01357	0.1	48	96	
ALFLR01360	0.1	48	120	

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01363	0.1	48	144	
ALFLR03137	0.1	48	96	
ALFLR01364	0.125	36	96	
ALFLR01365	0.125	48	96	
ALFLR01367	0.125	48	120	
ALFLR01369	0.125	48	144	
ALFLR01370	0.125	60	120	
ALFLR01373	0.125	60	144	
ALFLR01374	0.19	48	144	
ALFLR01376	0.19	60	144	
ALFLR01377	0.19	48	96	
ALFLR01378	0.19	48	120	
ALFLR02965	0.249	48	144	



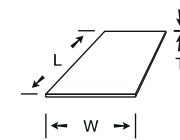
3003-H14 Aluminum Coil
ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Pounds Square Foot
ALFLR01275	0.016	36	
ALFLR01277	0.02	36	
ALFLR03108	0.02	48.5	
ALFLR01279	0.025	36	
ALFLR01281	0.032	36	
ALFLR01284	0.04	36	
ALFLR01289	0.063	48	



3003-O Aluminum Sheet
ASTM B 209

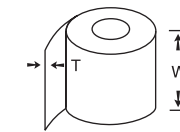
CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01303	0.032	48	144	
ALFLR01304	0.04	48	144	
ALFLR01305	0.05	48	144	
ALFLR01307	0.063	48	144	
ALFLR01308	0.08	48	120	
ALFLR01309	0.09	48	144	
ALFLR01312	0.125	48	144	



5052-H32 Aluminum Sheet
ASTM B 209

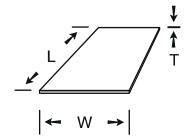
CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01445	0.02	48	144	
ALFLR01454	0.02	48	96	
ALFLR01455	0.02	48	120	
ALFLR01458	0.025	48	120	
ALFLR01459	0.025	48	96	
ALFLR01460	0.025	48	144	
ALFLR01464	0.032	48	96	
ALFLR01465	0.032	48	120	
ALFLR01466	0.032	48	144	
ALFLR01467	0.04	36	120	
ALFLR01468	0.04	36	144	
ALFLR01469	0.04	36	96	
ALFLR01470	0.04	48	96	
ALFLR01471	0.04	48	144	
ALFLR01473	0.05	36	96	
ALFLR01474	0.05	36	120	
ALFLR01475	0.05	36	144	
ALFLR01478	0.05	48	96	
ALFLR01479	0.05	48	120	
ALFLR01480	0.05	48	144	
ALFLR01481	0.063	48	96	
ALFLR01483	0.063	36	96	
ALFLR01484	0.063	36	120	
ALFLR01485	0.063	36	144	
ALFLR01491	0.063	48	144	
ALFLR01492	0.063	60	120	
ALFLR01493	0.063	60	144	
ALFLR02544	0.063	48	96	
ALFLR02881	0.063	48	120	
ALFLR03238	0.063	48	96	
ALFLR04123	0.063	48	120	
ALFLR04124	0.063	48	96	
ALFLR01494	0.08	36	144	
ALFLR01495	0.08	60	144	
ALFLR01497	0.08	48	120	
ALFLR01498	0.08	48	96	
ALFLR01499	0.08	48	144	
ALFLR01520	0.08	60	120	
ALFLR01529	0.08	60	96	
ALFLR03239	0.08	48	96	
ALFLR01500	0.09	48	120	
ALFLR01501	0.09	48	96	
ALFLR01502	0.09	48	144	
ALFLR01503	0.09	36	96	
ALFLR01504	0.09	36	144	
ALFLR01505	0.09	36	120	
ALFLR01506	0.09	60	144	
ALFLR01522	0.09	60	120	
ALFLR03240	0.09	48	96	
ALFLR04125	0.09	48	120	
ALFLR04126	0.09	48	96	
ALFLR04129	0.09	48	144	
ALFLR04130	0.09	60	144	
ALFLR02882	0.1	36	96	
ALFLR02883	0.1	48	96	
ALFLR02884	0.1	48	120	
ALFLR02891	0.1	48	144	

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01449	0.125	72	120	
ALFLR01507	0.125	36	96	
ALFLR01508	0.125	48	96	
ALFLR01509	0.125	48	120	
ALFLR01510	0.125	36	144	
ALFLR01511	0.125	36	120	
ALFLR01512	0.125	48	144	
ALFLR01513	0.125	72	144	
ALFLR01515	0.125	60	96	
ALFLR01518	0.125	60	120	
ALFLR01519	0.125	60	144	
ALFLR02546	0.125	48	96	
ALFLR04131	0.125	48	96	
ALFLR04132	0.125	48	144	
ALFLR04133	0.125	60	144	
ALFLR01535	0.16	48	96	
ALFLR01537	0.16	48	144	
ALFLR01516	0.19	48	120	
ALFLR01517	0.19	60	120	
ALFLR01539	0.19	48	96	
ALFLR01540	0.19	48	144	
ALFLR01542	0.19	60	144	
ALFLR04134	0.19	48	144	
ALFLR04135	0.19	48	96	
ALFLR01545	0.249	48	120	
ALFLR01546	0.249	48	144	
ALFLR01547	0.249	60	144	
ALFLR01548	0.249	48	96	
ALFLR02889	0.249	60	96	



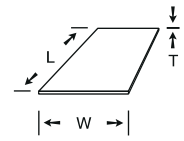
5052-H32 Aluminum Coil
ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Pounds Square Foot
ALFLR03205	0.016	49	
ALFLR01396	0.02	48	
ALFLR01397	0.025	36	
ALFLR01398	0.025	48	
ALFLR01399	0.032	36	
ALFLR01401	0.04	36	
ALFLR01402	0.04	48	
ALFLR01404	0.05	36	
ALFLR01405	0.05	48	
ALFLR01407	0.063	36	
ALFLR01408	0.063	48	
ALFLR01410	0.08	36	
ALFLR01411	0.08	48	
ALFLR01412	0.09	60	
ALFLR01413	0.09	36	
ALFLR01414	0.09	48	
ALFLR01387	0.1	36	
ALFLR01416	0.1	48	
ALFLR01417	0.125	36	
ALFLR01418	0.125	48	



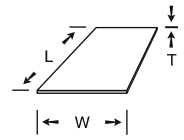
5052-H34 Aluminum Sheet
ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR02977	0.025	48	144	
ALFLR01553	0.04	48	144	
ALFLR01554	0.05	48	144	
ALFLR01555	0.063	48	96	
ALFLR01556	0.063	48	144	
ALFLR02507	0.063	48	120	
ALFLR01563	0.09	48	144	
ALFLR01558	0.125	48	96	
ALFLR02561	0.19	48	96	



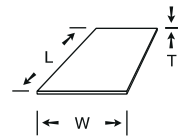
5052-O Aluminum Sheet
ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01438	0.04	48	144	
ALFLR01440	0.05	48	144	
ALFLR01441	0.063	48	144	
ALFLR03250	0.19	48	144	



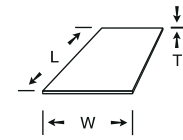
5086-H32 Aluminum Sheet
ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01565	0.063	48	144	
ALFLR01566	0.09	48	144	
ALFLR01567	0.125	48	144	
ALFLR01569	0.19	48	144	
ALFLR01570	0.249	48	144	



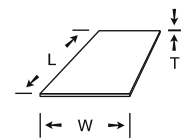
6061-O Aluminum Sheet
AMS 4025, ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01621	0.032	48	144	
ALFLR01622	0.04	48	144	
ALFLR01623	0.05	48	144	
ALFLR01624	0.063	48	144	
ALFLR01625	0.08	48	144	
ALFLR01626	0.09	48	144	
ALFLR03071	0.09	48	144	
ALFLR01627	0.1	48	144	
ALFLR01628	0.125	48	144	
ALFLR01630	0.19	48	144	



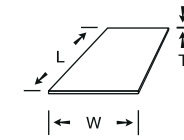
6061-T4 Aluminum Sheet
AMS 4026, ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR02519	0.032	48	96	
ALFLR02539	0.032	48	144	
ALFLR01631	0.04	48	144	
ALFLR01632	0.05	48	144	
ALFLR01633	0.063	48	144	
ALFLR01634	0.08	48	144	
ALFLR01635	0.09	48	144	
ALFLR03242	0.09	48	96	
ALFLR01637	0.125	48	144	
ALFLR01638	0.19	48	144	



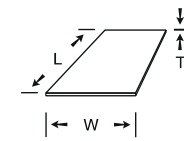
6061-T6 Aluminum Sheet
AMS 4027, ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01639	0.016	48	144	
ALFLR01641	0.02	48	144	
ALFLR01642	0.025	48	144	
ALFLR01643	0.032	48	144	
ALFLR01644	0.04	48	144	
ALFLR01645	0.05	48	144	
ALFLR01647	0.063	48	120	
ALFLR02640	0.063	48	144	
ALFLR01650	0.08	48	144	
ALFLR01651	0.08	36	144	
ALFLR01652	0.09	48	144	
ALFLR01655	0.1	48	144	
ALFLR01656	0.125	48	96	
ALFLR01658	0.125	48	144	
ALFLR01660	0.125	60	144	
ALFLR03244	0.125	48	121	
ALFLR01661	0.16	48	144	
ALFLR01663	0.19	48	144	
ALFLR01666	0.19	48	120	



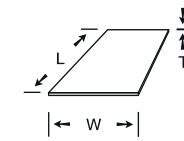
7075-O Clad Aluminum Sheet
AMS 4048, AMS-QQ-A-250, ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR03323	0.025	48	144	
ALFLR03264	0.032	48	144	
ALFLR02573	0.04	48	144	
ALFLR02557	0.05	48	144	
ALFLR02645	0.063	48	144	
ALFLR03265	0.08	48	144	
ALFLR03266	0.09	48	144	
ALFLR03267	0.1	48	144	
ALFLR03268	0.125	48	144	



7075-T6 Bare Aluminum Sheet
AMS 4045, AMS-QQ-A-250, ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR03269	0.02	48	144	
ALFLR03270	0.025	48	144	
ALFLR01671	0.032	48	144	
ALFLR01672	0.04	48	144	
ALFLR01673	0.05	48	144	
ALFLR01674	0.063	48	144	
ALFLR03271	0.08	48	144	
ALFLR01676	0.09	48	144	
ALFLR01678	0.125	48	144	
ALFLR01679	0.16	48	144	
ALFLR01680	0.19	48	144	



7075-T6 Clad Aluminum Sheet
AMS 4049, AMS-QQ-A-250, ASTM B 209

CBS Part No.	Thickness (Inches)	Width (Inches)	Length (Inches)	Pounds Square Foot
ALFLR01681	0.032	48	144	
ALFLR01682	0.04	48	144	
ALFLR01683	0.05	48	144	
ALFLR02623	0.063	48	144	
ALFLR03019	0.071	48	144	
ALFLR03001	0.08	48	144	
ALFLR03002	0.09	48	144	
ALFLR02564	0.1	48	144	
ALFLR02615	0.125	48	144	

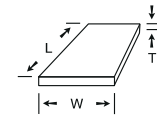


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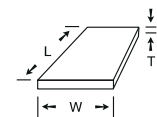
Plate



1100-H14 Aluminum Plate

Mill Width x Mill Length
ASTM B 209

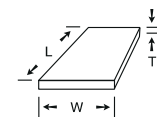
CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00724	0.375	5.2920



2024-T351 Aluminum Plate General Engineering Quality

Non USI Tested – Mill Width x Mill Length
AMS 4037, AMS-QQ-A-250, ASTM B 209

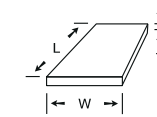
CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00822	0.25	3.5280
ALFLR00823	0.3125	4.4100
ALFLR00824	0.375	5.2920
ALFLR00829	0.5	7.0560
ALFLR00830	0.625	8.8200
ALFLR00831	0.75	10.5840
ALFLR00575	0.875	12.3480
ALFLR00825	1	14.1120
ALFLR00826	1.25	17.6400
ALFLR00828	1.5	21.1680
ALFLR00827	1.75	24.6960
ALFLR00832	2	28.2240
ALFLR00833	2.25	31.7520
ALFLR00835	2.5	35.2800
ALFLR02764	2.75	38.8080
ALFLR00062	3	42.3360
ALFLR00834	3.5	49.3920
ALFLR00836	4	56.4480



2024-T351 Aluminum Plate Aircraft Quality

USI Tested – Mill Width x Mill Length
AMS-STD-2154, AMS 4037, AMS-QQ-A-250, ASTM B 209

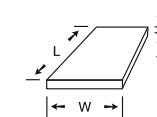
CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00934	0.75	10.5840
ALFLR00837	1	14.1120
ALFLR00838	1.25	17.6400
ALFLR00935	1.5	21.1680
ALFLR02815	1.75	24.6960
ALFLR00839	2	28.2240
ALFLR00841	2.5	35.2800
ALFLR00842	2.75	38.8080
ALFLR00843	3	42.3360
ALFLR00844	3.5	49.3920
ALFLR00845	4	56.4480
ALFLR00846	5	70.5600
ALFLR00847	6	84.6720



5052-H32 Aluminum Plate

Mill Width x Mill Length
ASTM B 209

CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00803	0.375	5.2920
ALFLR00804	0.5	7.0560

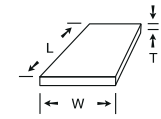


6013-T651 Aluminum Plate

Mill Width x Mill Length
ASTM B 209

This alloy combines the high corrosion resistance, high thermal conductivity, and weldability of 6061-T651 with the higher Brinell hardness and strength characteristic of 2024-T351. It machines with the same feeds and speeds, chip sizes, and surface finish that you find with 7075 and 2024. The material is heat treated, aged to peak strength, and stress relieved. It is suitable for use in many 6061 or 2024 applications. It is produced to a minimum of .030 inch over the nominal thickness.

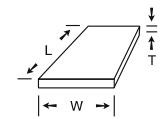
CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00851	0.25	3.5280
ALFLR00848	0.375	5.2920
ALFLR00852	0.5	7.0560
ALFLR00171	0.625	8.8200
ALFLR00853	0.75	10.5840
ALFLR00854	1	14.1120
ALFLR00850	1.25	17.6400
ALFLR00855	1.5	21.1680
ALFLR00864	1.75	24.6960
ALFLR00857	2	28.2240
ALFLR00868	2.25	31.7520
ALFLR00859	2.5	35.2800
ALFLR00869	2.75	38.8080
ALFLR00856	3	42.3360
ALFLR00695	3.25	45.8640
ALFLR00860	3.5	49.3920
ALFLR00858	4	56.4480
ALFLR00861	4.5	63.5040
ALFLR02812	5	70.5600
ALFLR00863	5.5	77.6160
ALFLR00862	6	84.6720
ALFLR00866	7	98.7840
ALFLR00867	8	112.8960



6061-T6 Aluminum Plate

Mill Width x Mill Length
AMS 4027, ASTM B 209

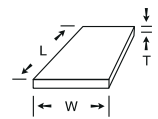
CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00979	11	155.2320
ALFLR00553	12	169.3440
ALFLR00981	14	197.5680
ALFLR00484	15	211.6800
ALFLR00982	16	225.7920



6061-T651 Aluminum Plate

Mill Width x Mill Length
AMS 4027, ASTM B 209

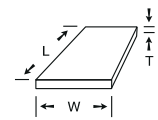
CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00939	0.25	3.5280
ALFLR00940	0.3125	4.4100
ALFLR00942	0.375	5.2920
ALFLR00941	0.4375	6.1740
ALFLR00943	0.5	7.0560
ALFLR00872	0.5625	7.9380
ALFLR00944	0.625	8.8200
ALFLR00120	0.75	10.5840
ALFLR00945	0.875	12.3480
ALFLR00946	1	14.1120
ALFLR00947	1.125	15.8760
ALFLR00948	1.25	17.6400
ALFLR00963	1.375	19.4040
ALFLR00729	1.5	21.1680
ALFLR00466	1.625	22.9320
ALFLR00428	1.75	24.6960
ALFLR00115	2	28.2240
ALFLR02667	2.25	31.7520
ALFLR00531	2.5	35.2800
ALFLR00950	2.75	38.8080
ALFLR00117	3	42.3360
ALFLR00238	3.25	45.8640
ALFLR00949	3.5	49.3920
ALFLR00951	4	56.4480
ALFLR00741	4.25	59.9760
ALFLR00112	4.5	63.5040
ALFLR00952	5	70.5600
ALFLR00220	5.5	77.6160
ALFLR00953	6	84.6720
ALFLR00968	6.5	91.7280
ALFLR00970	7	98.7840
ALFLR00123	8	112.8960
ALFLR00279	8.5	119.9520
ALFLR00972	9	127.0080
ALFLR00174	10	141.1200



7050-T7451 Aluminum Plate Aircraft Quality

USI Tested – Mill Width x Mill Length
AMS 4050, AMS-STD-2154, ASTM B 594

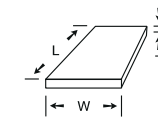
CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR03064	0.75	10.5840
ALFLR01062	1	14.1120
ALFLR01063	1.25	17.6400
ALFLR01064	1.5	21.1680
ALFLR01065	1.75	24.6960
ALFLR01066	2	28.2240
ALFLR01068	2.25	31.7520



7050-T7451 Aluminum Plate Aircraft Quality

USI Tested, Type 1 – Mill Width x Mill Length
AMS 4050, AMS-STD-2154

CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00876	2.5	35.2800
ALFLR00877	2.75	38.8080
ALFLR00878	3	42.3360
ALFLR00879	3.5	49.3920
ALFLR00616	3.75	52.9200
ALFLR02691	4	56.4480
ALFLR01070	4.5	63.5040
ALFLR01071	5	70.5600
ALFLR00027	5.5	77.6160
ALFLR01072	6	84.6720
ALFLR03068	6.5	91.7280
ALFLR03058	7	98.7840
ALFLR00678	8	112.8960



7075-T651 Aluminum Plate General Engineering Quality

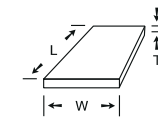
Non USI Tested – Mill Width x Mill Length
.030 Minimum Overgauge for Thickness 1 Inch and Greater
AMS 4045, AMS-QQ-A-250, ASTM B 209

CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00983	0.25	3.5280
ALFLR00984	0.375	5.2920
ALFLR00985	0.5	7.0560
ALFLR00986	0.625	8.8200
ALFLR00430	0.75	10.5840
ALFLR00635	0.875	12.3480
ALFLR00994	1	14.1120
ALFLR00995	1.25	17.6400
ALFLR00998	1.5	21.1680
ALFLR00996	1.75	24.6960
ALFLR00999	2	28.2240
ALFLR01001	2.25	31.7520
ALFLR01004	2.5	35.2800
ALFLR01005	2.75	38.8080
ALFLR01006	3	42.3360
ALFLR01009	3.25	45.8640
ALFLR00566	3.5	49.3920
ALFLR01011	3.75	52.9200
ALFLR00369	4	56.4480
ALFLR00433	4.5	63.5040
ALFLR01013	5	70.5600
ALFLR00645	6	84.6720
ALFLR01014	7	98.7840
ALFLR01015	8	112.8960
ALFLR02994	9	127.0080
ALFLR01016	10	141.1200

7075-T651 Typical Properties

Thickness	UTS (ksi)	YTS (ksi)	Elongation (%)
1	83	75	13
4	75	63	11
6	67	53	11
8	57	39	14
10	52	32	14

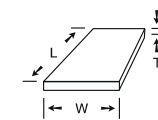
Density 101 lb/in³
 Hardness 150 HRB
 Coefficient of Thermal Expansion 13.1 x 10⁻⁶ in/in-°F
 Thermal Conductivity 75 Btu/ft-h-°F
 Modulus of Elasticity 10.4 x 10⁶ psi



7075-T651 Aluminum Plate Aircraft Quality

USI Tested – Mill Width x Mill Length
AMS 4045, AMS-QQ-A-250, AMS-STD-2154, ASTM B 209

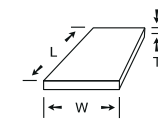
CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR01074	0.625	8.8200
ALFLR00987	0.75	10.5840
ALFLR00992	1	14.1120
ALFLR00993	1.25	17.6400
ALFLR00988	1.5	21.1680
ALFLR00989	1.75	24.6960
ALFLR01000	2	28.2240
ALFLR01002	2.5	35.2800
ALFLR01008	3	42.3360
ALFLR01010	3.5	49.3920
ALFLR01012	4	56.4480
ALFLR00991	5	70.5600
ALFLR00875	6	84.6720



7075-T7351 Aluminum Plate

Non USI Tested – Mill Width x Mill Length
AMS 4078, AMS-QQ-A-250, ASTM B 209

CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR01017	0.25	3.5280
ALFLR01018	0.5	7.0560
ALFLR01019	0.625	8.8200

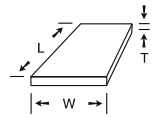


7075-T7351 Aluminum Plate Aircraft Quality

USI Tested – Mill Width x Mill Length
AMS 4078, AMS-QQ-A-250, AMS-STD-2154

CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR02971	0.375	5.2920
ALFLR01022	0.75	10.5840
ALFLR01023	1	14.1120
ALFLR01024	1.25	17.6400
ALFLR01029	1.5	21.1680
ALFLR00353	1.75	24.6960
ALFLR01031	2	28.2240
ALFLR01032	2.25	31.7520
ALFLR00249	2.5	35.2800
ALFLR01034	2.75	38.8080
ALFLR01036	3	42.3360
ALFLR01037	3.25	45.8640
ALFLR01038	3.5	49.3920
ALFLR01040	4	56.4480
ALFLR04099	5	70.5600

Cast Tooling Plate



MIC 6® Cast Aluminum Tooling Plate
Mill Width x Mill Length

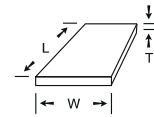
This 7xxx series continuous-cast aluminum tooling plate exhibits very low internal stress. It is provided with a milled surface (< 20 RMS) on the top and bottom. It is suitable for use where flatness and stability are the desired characteristics.

CBS Part No.	Thickness (Inches)	Thickness Tolerance	Pounds Square Feet
ALFLR00110	0.25	(±.005)	3.6360
ALFLR00870	0.3125	(±.005)	4.5450
ALFLR00871	0.375	(±.005)	5.4540
ALFLR00026	0.5	(±.005)	7.2720
ALFLR00450	0.625	(±.005)	9.0900
ALFLR00605	0.75	(±.005)	10.9080
ALFLR00187	0.875	(±.005)	12.7260
ALFLR00921	1	(±.005)	14.5440
ALFLR00922	1.125	(±.005)	16.3620
ALFLR00923	1.25	(±.005)	18.1800
ALFLR00924	1.5	(±.005)	21.8160
ALFLR00925	1.75	(±.005)	25.4520
ALFLR00926	2	(±.005)	29.0880
ALFLR00927	2.25	(±.005)	32.7240
ALFLR00928	2.5	(±.005)	36.3600
ALFLR00929	2.75	(±.005)	39.9960
ALFLR00930	3	(±.005)	43.6320
ALFLR00931	3.5	(±.005)	50.9040
ALFLR02759	4	(±.005)	58.1760

MIC 6® Typical Properties (Data courtesy of Alcoa)

Tensile Strength	..... Typical 24 ksi
Yield Strength	..... Typical 15 ksi
Percent of Elongation	..... 3%
Brinell Hardness	..... 65
Coefficient of Thermal Expansion (average)	
68 to 212 °F (20 to 100 °C)	..... 13.1 x 10 ⁻⁶ in/in-°F
68 to 392 °F (20 to 200 °C)	..... 13.6 x 10 ⁻⁶ in/in-°F
Thermal Conductivity	..... 82 Btu/ft-h-°F
Electrical Conductivity, IACS	..... 36%
Modulus of Elasticity	..... 10.3 x 10 ⁶ psi

MIC 6 is a registered trademark of Alcoa Inc.



CAST5000 Cast Precision Aluminum Plate
Mill Width x Mill Length

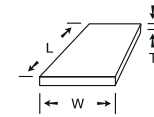
CAST5000 cast aluminum tooling plate exhibits very low internal stress. It also machines, welds, and anodizes quite well. It is provided with a milled surface (< 20 RMS) on the top and bottom. It is suitable where flatness and stability are the desired characteristics.

CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR02981	0.25	3.4560
ALFLR02982	0.375	5.1840
ALFLR02983	0.5	6.9120
ALFLR02984	0.625	8.6400
ALFLR00684	0.75	10.3680
ALFLR02985	0.875	12.0960
ALFLR02686	1	13.8240
ALFLR02986	1.25	17.2800
ALFLR00681	1.5	20.7360
ALFLR02684	1.75	24.1920
ALFLR00084	2	27.6480
ALFLR00704	2.25	31.1040
ALFLR00085	2.5	34.5600
ALFLR02860	3	41.4720
ALFLR02987	3.5	48.3840
ALFLR02988	4	55.2960
ALFLR03048	5	69.1200
ALFLR03049	6	82.9440

CAST5000 Typical Properties

Density	..... 0.096 lb/in ³
Elastic Modulus	..... 10.3 x 10 ⁶ psi
Coefficient of Thermal Expansion (68 - 212 °F)	..... 13.2 micro in/in-°F
Thermal Conductivity (68 °F)	..... 69.3 Btu/ft-h-°F
Electrical Conductivity (68 °F)	..... 27% IACS
Tensile Strength UTS	..... 41,000 psi
Yield Strength YS	..... 18,000 psi
Elongation in 2"	..... 16%
Brinell Hardness	..... 70 HRB
Thickness Tolerance	..... ±0.005"
Width and Length Tolerance	..... +0.125" / -0.000"
Flatness	
0.250" - 0.500"	..... ±0.015"
0.625" - 4"	..... ±0.005"
Surface Finish	..... ≤ 20 μinch / ≤ 0.50 μm

Mold Materials



Max 5® Cast Aluminum Mold Plate
Mill Width x Mill Length
Sawed 6 Sides

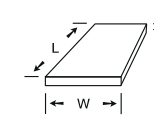
Max 5® Cast Aluminum Mold Plate is manufactured from cast aluminum blocks with fine grain structure and low porosity. After casting, the blocks are given a heat-treat process resulting in a stress-relieved and homogeneous metal with strength, excellent weldability, excellent machinability, and good anodize response.

CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00806	5	70.5600
ALFLR00807	6	84.6720
ALFLR00808	7	98.7840
ALFLR00809	8	112.8960
ALFLR00810	9	127.0080
ALFLR00811	10	141.1200
ALFLR00812	11	155.2320
ALFLR00813	12	169.3440
ALFLR00814	13	183.4560
ALFLR00815	14	197.5680
ALFLR00816	16	225.7920

Max 5® Typical Properties (Data courtesy of PCP Canada)

Tolerances	
Width, length and thicknesses	..... +.250/-0.000 in.
Flatness	..... 0.125 in.
Surface condition	..... Precision Sawed
Physical Properties	
Density	..... 0.096 lb/in ³
Elastic Modulus	..... 10.3 x 10 ⁶ psi
Coefficient of Thermal Expansion	..... 13.2 μin/in °F (68°F - 212°F)
Thermal Conductivity (68°F)	..... 69 - 80 Btu/ft-h°F
Electrical Conductivity (68°F)	..... 28% IACS
Mechanical Properties (Typical)	
Yield YS	..... 16 - 21 ksi
Tensile UTS	..... 34 - 38 ksi
Elongation	..... 15 %
Brinell Hardness	..... 70 - 80 HRB
Processing Characteristics	
Machinability	..... Excellent
Weldability (Mig/Tig 5183 filler)	..... Excellent
Corrosion Resistance	..... Excellent
Polishing	..... Good
Anodize response	..... Good, Not Decorative
Stability	..... Excellent
Formability	..... Not Recommended

Max 5 is a registered trademark of PCP Canada.



ALUMEC 99® Aluminum Mold Plate
Mill Width x Mill Length

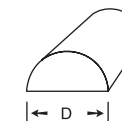
This high strength 7xxx series aluminum alloy has been developed to specifically resist the occurrence of exfoliation corrosion normally found in blow mold water lines. This resistance to exfoliation corrosion will minimize the problems of cracked molds and waterline damage. Its mechanical and physical properties are equal to or greater than 7075-T651 with no softness in the center of the material as is common to 7075. It is produced to a minimum of .030 inch over the nominal thickness.

CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00881	1	14.1120
ALFLR01097	1.5	21.1680
ALFLR01095	1.75	24.6960
ALFLR00243	2	28.2240
ALFLR00351	2.25	31.7520
ALFLR00455	2.5	35.2800
ALFLR00882	2.75	38.8080
ALFLR00221	3	42.3360
ALFLR00316	3.5	49.3920
ALFLR02803	4	56.4480
ALFLR00064	4.625	65.2680
ALFLR01104	5	70.5600
ALFLR00383	5.5	77.6160
ALFLR02837	6	84.6720

ALUMEC 99® Typical Properties

Yield Strength	
1 inch thick	..... 70 ksi
4 inches thick	..... 65 ksi
6 inches thick	..... 64 ksi
Ultimate Tensile Strength	
1 inch thick	..... 78 ksi
4 inches thick	..... 74 ksi
6 inches thick	..... 73 ksi
Percent Elongation	
1 inch thick	..... 12%
4 inches thick	..... 11%
6 inches thick	..... 9%
Surface Hardness	..... 165 Hb
Coefficient of Thermal Expansion (average)	
68 to 212 °F (20 to 100 °C)	..... 13.0 x 10 ⁻⁶ in/in-°F
Thermal Conductivity	..... 96 Btu/ft-h-°F
Modulus of Elasticity	..... 10.4 x 10 ⁶ psi
Density	..... 0.102 lb/in ³

ALUMEC 99 is a registered trademark of Alcoa Inc.



7022-T6511 Aluminum Half Round Bar
Extruded - 13.13 Foot Mill Lengths

This high strength custom aluminum shape is often used in mold construction and has higher hardness and strength than 7075-T651. The consistency of these properties do not decrease as rapidly through thickness as 7075-T651.

CBS Part No.	Diameter mm (Inches)	Pounds Per Foot
ALCUS00098	154 (6.063)	17.314

Now, an advanced aluminum alloy to replace P-20 in production injection molds.



Advanced Aluminum Alloy Mold Products

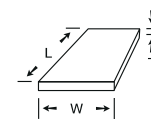
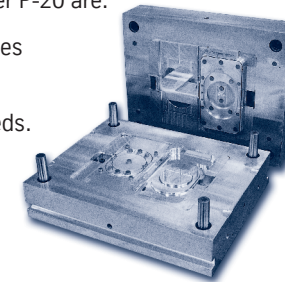
QC-10[®] Aluminum Mold Plate is the only alloy specifically designed to meet the unique needs of the plastic injection molding industry.

With its high strength, high surface hardness, high through-thickness hardness, and superior corrosion resistance, QC-10[®] delivers a new standard of performance in demanding mold applications.

QC-10[®] has been successfully substituted for P-20 steel in a number of production injection mold applications making hundreds-of-thousands of parts with greatly reduced cycle times.

Some of the advantages of QC-10[®] over P-20 are:

- From 20% – 30% improved cycle times (much higher thermal conductivity).
- Over 50% faster CNC feeds and speeds.
- One-third the weight of steel.



QC-10[®] Aluminum Mold Plate

Mill Width x Mill Length

QC-10[®] is a very high strength 7xxx series aluminum mold plate especially developed for the injection mold and blow mold industries. It combines the highest strength and hardness by thickness of any aluminum mold product and maintains very high thermal conductivity. The product has very low quench sensitivity, therefore it has very uniform through-thickness hardness and strength, even in very thick sections. This results in very good stability when machining. QC-10[®] also has superior corrosion resistance for a 7xxx series alloy. It is produced to a minimum of .030 inch over the nominal thickness.

QC-10[®] Typical Properties (Data courtesy of Alcoa)

Yield Strength	
2 – 6 inches	76 ksi
8 – 12 inches	72 ksi
14 – 18 inches	68 ksi
> 20 inches	66 ksi
Ultimate Strength	
2 – 6 inches	82 ksi
8 – 12 inches	77 ksi
14 – 18 inches	74 ksi
> 20 inches	72 ksi
Elongation	
2 – 6 inches	10%
8 – 12 inches	8%
14 – 18 inches	6%
> 20 inches	3%
Density	0.103 lb/in ³
Hardness at Center	150 - 170 BH
Coefficient of Thermal Expansion	13.7 x 10 ⁻⁶ /°F
Thermal Conductivity	92 Btu/°F
Specific Heat	0.210 Btu/lb/°F
Modulus of Elasticity	10.4 x 10 ⁶ psi

QC-10 is a registered trademark of Alcoa Inc.

CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00653	1	14.8320
ALFLR00604	1.25	18.5400
ALFLR01080	1.5	22.2480
ALFLR01084	1.75	25.9560
ALFLR00437	2	29.6640
ALFLR01079	2.25	33.3720
ALFLR01082	2.5	37.0800
ALFLR02722	2.75	40.7880
ALFLR00392	3	44.4960
ALFLR00514	3.25	48.2040
ALFLR00444	3.5	51.9120
ALFLR00534	3.75	55.6200
ALFLR01081	4	59.3280
ALFLR00449	4.25	63.0360

CBS Part No.	Thickness (Inches)	Pounds Square Foot
ALFLR00129	4.5	66.7440
ALFLR01085	5	74.1600
ALFLR01086	6	88.9920
ALFLR01088	7	103.8240
ALFLR01087	8	118.6560
ALFLR01089	9	133.4880
ALFLR00111	10	148.3200
ALFLR02979	11	163.1520
ALFLR01090	12	177.9840
ALFLR01091	14	207.6480
ALFLR00394	16	237.3120
ALFLR00395	18	266.9760
ALFLR00440	20	296.6400

Comparative Characteristics of Aluminum Plate

Alloy	Description	Typical Properties				Surface Hardness (Hb)	Thermal Conductivity (Btu/ft/hr/ft ² /°F)	Specific Heat @ 70°F (Btu/Lb)	Corrosion Resistance					Avg. Coefficient of Thermal Expansion (x10 ⁻⁶ /in/in/°F, 68 - 212°F)	Modulus of Elasticity (x10 ⁶ lb/in ²)	Density (lb/in ³)		
		Thickness (Inches)	UTS (ksi)	YTS (ksi)	Elongation (%)				Poisson's Ratio	General	Exfoliation	Stress Corrosion Cracking	Weldability				Machinability	Polishability
QC-10®	Alcoa High Strength Wrought Aluminum	1	81	78	15	150 - 170	92	0.210	0.33	B	A	A	D	B 70%	Excellent	13.7	10.4	0.103
		4	80	74	14													
		6	80	74	6													
		8	77	71	8													
		10	76	70	6													
		12	74	68	6													
		16	74	67	5													
Alumec 99®	Alcoa High Strength Wrought Aluminum	1	78	70	12	165	96	0.33	B	A	A	D	B 70%	Excellent	13.0	10.4	0.102	
		4	74	65	11													
		6	73	64	9													
7075-T651	High Strength Wrought Aluminum	1	83	75	13	150	75	0.229	0.33	C	C	C	D	B 70%	Very Good	13.1	10.4	0.101
		4	75	63	11													
		6	67	53	11													
		8	57	39	14													
2024-T351	Medium Strength Wrought Aluminum	1	67	46	18	120	70	0.209	0.33	D	D	D	B	B 70%	Good	12.9	10.6	0.100
		4	68	47	16													
		6	62	43	12													
6013-T651	Alcoa Medium Strength Wrought Aluminum	1	57	51	11	120	95	0.33	A	A	A	A	A	B 70%	Very Good	13.0	10.1	0.096
		4	60	54	6													
		6	59	52	7													
		8	56	51	5													
6061-T651	Medium Strength Wrought Aluminum	1	46	42	14	95	96	0.214	0.33	A	A	A	A	C 50%	Good	13.1	10.0	0.096
		4	48	43	13													
		6	47	43	11													
		8	45	39	11													
		10	45	39	11													
6061-T6	Medium Strength Wrought Aluminum	12	38	33	9	95	96	0.214	0.33	A	A	A	A	C 50%	Good	13.1	10.0	0.096
		16	38	29	11													
Cast 5000	Cast 5083 Machined	3 - 41	41	18	16	70	81	0.33	A	A	A	A	A	B 70%	Very Good	13.2	10.3	0.096
Cast 5000	Cast 5083 Tool & Jig	1/4 - 6	41	18	16	70	81	0.33	A	A	A	A	A	B 70%	Very Good	13.2	10.3	0.096
Mic-6®	Alcoa Cast Tool & Jig	1/4 - 4	24	15	3	65	83	0.33	C	C	C	D	C 50%	Good	13.1	10.3	0.101	

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