SECTION 9
Aluminum

General Information on Aluminum Alloys

In high-purity form aluminum is soft and ductile. Most commercial uses, however, require greater strength than pure aluminum affords. This is achieved by the addition of other elements to produce various alloys, which singly or in combination impart strength to the metal. Further strengthening is possible by means which classify the alloys roughly into two categories, non-heat-treatable and heat-treatable.

Non-Heat-Treatable Alloys—The initial strength of alloys in this group depends upon the hardening effect of elements such as manganese, silicon, iron and magnesium, singly or in various combinations. The non-heat-treatable alloys are usually designated, therefore, in the 1000, 3000, 4000, or 5000 series. Since these alloys are work-hardenable, further strengthening is made possible by various degrees of cold working, denoted by the “H” series of tempers. Alloys containing appreciable amounts of magnesium when supplied in strain-hardened tempers are usually given a final elevated-temperature treatment called stabilizing to insure stability of properties.

Heat-Treatable Alloys—The initial strength of alloys in this group is enhanced by the addition of alloying elements such as copper, magnesium, zinc, and silicon. Since these elements singly or in various combinations show increasing solid solubility in aluminum with increasing temperature, it is possible to subject them to thermal treatments which will impart pronounced strengthening.

The first step, called heat treatment or solution heat treatment, is an elevated-temperature process designed to put the soluble element or elements in solid solution. This is followed by rapid quenching, usually in water, which momentarily “freezes” the structure and for a short time renders the alloy very workable. It is at this stage that some fabricators retain this more workable structure by storing the alloys at below freezing temperatures until they are ready to form them. At room or elevated temperatures the alloys are not stable after quenching, however, and precipitation of the constituents from the super-saturated solution begins. After a period of several days at room temperature, termed aging or room-temperature precipitation, the alloy is considerably stronger. Many alloys approach a stable condition at room temperature, but some alloys, particularly those containing magnesium and silicon or magnesium and zinc, continue to age-harden for long periods of time at room temperature.

Effect of Alloying Elements

1000 Series—Aluminum of 99 percent or higher purity has many applications, especially in the electrical and chemical fields. These alloys are characterized by excellent corrosion resistance, high thermal and electrical conductivity, low mechanical properties and excellent workability. Moderate increases in strength may be obtained by strain-hardening. Iron and silicon are the major impurities.

2000 Series—Copper is the principal alloying element in this group. These alloys require solution heat-treatment to obtain optimum properties; in the heat treated condition mechanical properties are similar to, and sometimes exceed, those of mild steel. In some instances artificial aging is employed to further increase the mechanical properties. This treatment materially increases yield strength, with attendant loss in elongation; its effect on tensile (ultimate) strength is not as great. The alloys in the 2000 series do not have as good corrosion resistance as most other aluminum alloys and under certain conditions they may be subject to intergranular corrosion. Therefore, these alloys in the form of sheet are usually clad with a high-purity alloy or a magnesium-silicon alloy of the 6000 series which provides galvanic protection to the core material and thus greatly increases resistance to corrosion. Alloy 2024 is perhaps the best known and most widely used aircraft alloy.

3000 Series—Manganese is the major alloying element of alloys in this group, which are generally non-heat-treatable. Because only a limited percentage of manganese, up to about 1.5 percent, can be effectively added to aluminum, it is used as a major element in only a few instances. One of these, however, is the popular 3003, which is widely used as a general-purpose alloy for moderate-strength applications requiring good workability.

5000 series—Magnesium is one of the most effective and widely used alloying elements for aluminum. When it is used as the major alloying element or with manganese, the result is a moderate to high strength non-heat-treatable alloy. Magnesium is considerably more effective than manganese as a hardener, about 0.8 percent magnesium being equal to 1.25 percent manganese, and it can be added in considerably higher quantities. Alloys in this series possess good welding characteristics and good resistance to corrosion in marine atmosphere. However, certain limitations should be placed on the amount of cold work and the safe operating temperatures permissibly for the higher magnesium content alloys (over about 3 1/2 percent for operating temperatures above about 150 F (66 C) to avoid susceptibility to stress corrosion.

6000 Series—Alloys in this group contain silicon and magnesium in approximate proportions to form magnesium silicide, thus making them heat-treatable. Major alloy in this series is 6061, one of the most versatile of the heat-treatable alloys. Though less strong than most of the 2000 or 7000 alloys, the magnesium-silicon (or magnesium-silicide) alloys possess good formability and corrosion resistance, with medium strength. Alloys in this heat-treatable group may be formed in the T4 temper (solution heat-treated but not artificially aged) and then reach full T6 properties by artificial aging.

Aluminum Flat Sheets

3003-H14, Federal Specification
QQ-A-250/2 (1)
Mill Finish

Thickness	Est. Lbs. Per Sq. Ft.	Size A		B	Est. Lbs. Per Sheet
.025	.356	48	x	96	11.39
		48	x	120	14.24
.032	.456	48	x	120	18.24
		48	x	144	21.89
.040	.570	48	x	96	18.24
		48	x	120	22.80
		48	x	144	27.36
.050	.713	48	x	96	22.82
		48	x	120	28.52
		48	x	144	34.22
.063	.898	48	x	96	28.74
		48	x	120	35.92
		48	x	144	43.10
		60	x	120	44.90
		60	x	144	53.88
.080	1.139	48	x	120	45.56
.090	1.287	48	x	96	41.18
		48	x	120	51.48
		48	x	144	61.78
.100	1.426	48	x	96	45.63
		48	x	120	57.04
		48	x	144	68.45
.125	1.782	48	x	96	57.02
		48	x	120	71.28
		48	x	144	85.54
		60	x	120	89.10
		60	x	144	106.92
.190	2.713	48	x	96	86.82
		48	x	120	108.52
		48	x	144	130.22
		60	x	120	135.65
		60	x	144	162.78

Aluminum Flat Sheets

5052-H32, Federal Specification
QQ-A-250/8 (1) Mill Finish

Thickness	Est. Lbs. Per Sq. Ft.	Size A		B	Est. Lbs. Per Sheet
.040	.559	48	x	120	22.34
.050	.698	48	x	120	27.92
.063	.880	48	x	120	35.20
		60	x	120	52.80
.080	1.117	48	x	120	35.74
.090	1.257	48	x	96	50.28
.125	1.746	48	x	96	83.81
.190	2.654	48	x	144	127.39

(1) Standard stock sheets meet all requirements of the referenced Federal Specification with the exception of stenciling.

Bare Aluminum Flat Sheets

6061-T6, Federal Specification
QQ-A-250/11 (1)
Mill Finish

Thickness	Est. Lbs. Per Sq. Ft.	Size A		B	Est. Lbs. Per Sheet
.032	.452	48	x	144	21.70
.040	.565	48	x	144	27.12
.050	.706	48	x	144	33.89
		60	x	144	42.36
.063	.889	48	x	144	42.67
.090	1.270	48	x	144	60.96
.125	1.764	48	x	96	56.45
		48	x	144	84.67
.190	2.681	48	x	144	128.69

(1) Standard stock sheets meet all requirements of the referenced Federal Specification, however certain sizes may not be stenciled.

ALUMINUM

Aluminum Diamond Floor Plates

6061-T6

Thickness	Est. Lbs. Per Sq. Ft.	Size	Est. Lbs. Per Plate
.125	1.905	48 x 192	121.92
		60 x 192	152.40
.188	2.820	48 x 192	180.48
		60 x 192	225.60
.250	3.700	48 x 192	236.80
		60 x 192	296.00
.375	5.490	48 x 192	351.36
		60 x 192	439.20
.500	7.270	48 x 192	465.28

ALUMINUM CAST TOOL AND JIG PLATE

Cast, Stress Relieved, and Machined

Vinyl Covered Both Sides and Identified

Both surfaces machined to 25 micro-inches or better.

Thickness tolerance is plus or minus .005 in.

Typical uses: stretch-forming dies, rubber pad process form blocks, assembly jigs, locating devices, drill jigs, pattern and core plates, and inspection fixtures.

Size in Inches			Lbs. per Sq. Ft.	Est. Lbs. Per Plate
1/4	x48	x 96	3.636	118.2
3/8	x48	x 96	5.454	177.3
1/2	x48	x 96	7.272	236.4
	48	x 144		353.9
5/8	x48	x 144	9.090	442.4
3/4	x48	x 96	10.91	354.6
	48	x 144		531.0
	60	x 144		662.3
1	x48	x 96	14.54	472.6
	48	x 144		707.6
1 1/2	x48	x 144	21.82	1061.0

Bare Aluminum Plates

606T-T6Federal Specification
QQ-A-250/11, Mill Finish

Thickness	Est. Lbs. Per Sq. Ft.	Size	Est. Lbs. Per Plate
3/16	2.685	48 x 96	85.92
		48 x 120	107.40
		48 x 144	128.88
1/4	3.660	48 x 96	117.12
		48 x 144	175.68
3/8	5.440	48 x 96	174.08
		48 x 144	261.12
1/2	7.250	48 x 96	232.00
		48 x 144	348.00
3/4	10.58	48 x 144	514.90
1	14.11	48 x 144	686.70
1 1/4	17.64	48 x 144	858.50
1 1/2	21.17	48 x 144	1030.00
1 3/4	24.70	48 x 144	1202.00
2	28.22	48 x 144	1373.00
2 1/4	31.75	48 x 144	1545.00
2 1/2	35.28	48 x 144	1717.00
3	42.34	48 x 144	2061.00
3 1/2	49.39	48 x 144	2404.00
4	56.45	48 x 144	2747.00

Many other grades and sizes of aluminum plates are readily available, please inquire.

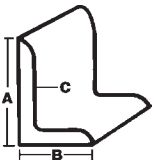
Aluminum Diamond Floor Plates

Bright Finish 3003

Thickness	Est. Lbs. Per Sq. Ft.	Size	Est. Lbs. Per Plate
.060	.912	48 x 96	29.18
.100	1.568	48 x 96	100.35
.125	1.925	48 x 96	92.40
	1.925	48 x 120	77.00
		48 x 192	123.20
.188	2.823	60x 120	180.67

Aluminum Angles

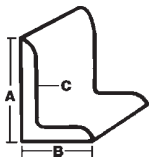
6063 Square Edge, 6061-T6 Structural
QQ-A-200/9 QQ-A-200/16
Equal Leg, Stock Lengths 25 Ft.



Size in Inches A	B	C	Available in 6063	Est. Lbs. Per Ft.	Est. Lbs. Per 25'
3/4	x 3/4	x 1/8	X	.201	5.03
1	x 1	x 1/8	X	.275	6.88
		x 3/16	X	.400	10.00
		x 1/4	. .	.514	12.85
1 1/4	x 1 1/4	x 1/8	X	.343	8.58
		x 3/16	X	.510	12.75
		x 1/4	. .	.656	16.40
1 1/2	x 1 1/2	x 1/8	X	.423	10.58
		x 3/16	X	.619	15.48
		x 1/4	. .	.809	20.23
		x 3/8	. .	1.176	29.40
1 3/4	x 1 3/4	x 1/8	X	.497	12.43
		x 3/16	. .	.731	18.28
		x 1/4	. .	.956	23.90
		x 5/16	. .	1.171	29.28
		x 3/8	. .	1.378	34.45
2	x 2	x 1/8	X	.577	14.43
		x 3/16	X	.850	21.25
		x 1/4	X	1.110	27.75
		x 5/16	. .	1.364	34.10
		x 3/8	. .	1.606	40.15
2 1/2	x 2 1/2	x 1/8	X	.724	18.10
		x 3/16	. .	1.070	26.75
		x 1/4	. .	1.404	35.10
		x 5/16	. .	1.729	43.23
		x 3/8	. .	2.047	51.18
3	x 3	x 3/16	X	1.275	31.88
		x 1/4	X	1.684	42.10
		x 5/16	. .	2.082	52.05
		x 3/8	. .	2.474	61.85
		x 1/2	. .	3.227	80.68
3 1/2	x 3 1/2	x 1/4	. .	1.989	49.73
		x 5/16	. .	2.461	61.53
		x 3/8	. .	2.926	73.15
		x 1/2	. .	3.826	95.65
4	x 4	x 1/4	. .	2.283	57.08
		x 5/16	. .	2.829	70.73
		x 3/8	. .	3.366	84.15
		x 1/2	. .	4.414	110.35
		x 5/8	. .	5.425	135.63
5	x 5	x 3/8	. .	4.237	105.93
		x 1/2	. .	5.578	139.45

Aluminum Angles (con't)

Size in Inches A	B	C	Est. Lbs. Per Ft.	Est. Lbs. Per 25'
6	x 6	x 3/8	5.119	127.98
		x 1/2	6.754	168.85
		x 5/8	8.352	208.80
8	x 8	x 1/2	9.141	228.53
		x 3/4	13.478	336.95



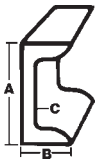
Aluminum Angles

6063 Square Edge, 6061-T6 Structural
Federal Specification QQ-A-200/16
Unequal Leg, Stock Lengths 25 Ft.

Size in Inches A	B	C	Available in 6063	Est. Lbs. Per Ft.	Est. Lbs. Per 25'
1	x 3/4	x 1/8	X	.238	5.95
1 1/4	x 3/4	x 1/8	. .	.272	6.80
1 1/4	x 1	x 1/8	. .	.314	7.85
1 1/2	x 3/4	x 1/8	X	.314	7.85
		x 3/16	. .	.454	11.35
1 1/2	x 1	x 1/8	X	.347	8.68
		x 1/4	. .	.662	16.55
1 1/2	x 1 1/4	x 1/8	. .	.387	9.68
		x 3/16	. .	.566	14.15
		x 1/4	. .	.734	18.35
1 3/4	x 1 1/4	x 1/8	. .	.421	10.53
		x 3/16	. .	.621	15.53
		x 1/4	. .	.809	20.23
2	x 1	x 1/8	X	.431	10.78
2	x 1 1/2	x 1/8	. .	.496	12.40
		x 3/16	X	.731	18.28
		x 1/4	. .	.956	23.90
		x 3/8	. .	1.378	34.45
2 1/2	x 1 1/4	x 3/16	. .	.797	19.93
2 1/2	x 1 1/2	x 1/8	X	.577	14.43
		x 3/16	. .	.850	21.25
		x 1/4	. .	1.110	27.75
2 1/2	x 2	x 1/8	. .	.652	16.30
		x 3/16	. .	.961	24.03
		x 1/4	. .	1.257	31.43
		x 3/8	. .	1.828	45.70
3	x 2	x 3/16	. .	1.071	26.78
		x 1/4	. .	1.403	35.08
		x 3/8	. .	2.046	51.15
3	x 2 1/2	x 1/4	. .	1.537	38.43
		x 3/8	. .	2.253	56.33

Aluminum Angles (con't)

Size in Inches A	B	C	Est. Lbs. Per Ft.	Est. Lbs. Per 25'
3 1/2	x 2 1/2	x 1/4	1.684	42.10
		x 3/8	2.474	61.85
		x 1/2	3.227	80.68
3 1/2	x 3	x 1/4	1.842	46.05
		x 3/8	2.705	67.63
		x 1/2	3.532	88.30
4	x 2 1/2	x 1/4	1.856	46.40
4	x 3	x 1/4	1.988	49.70
		x 3/8	2.926	73.15
		x 1/2	3.826	95.65
4	x 3 1/2	x 3/8	3.128	78.20
		x 1/2	4.102	102.55
5	x 3	x 3/8	3.349	83.73
		x 1/2	4.396	109.90
5	x 3 1/2	x 3/8	3.582	89.55
		x 1/2	4.704	117.60
6	x 3 1/2	x 5/16	3.385	84.63
		x 3/8	4.037	100.93
		x 1/2	5.306	132.65
6	x 4	x 3/8	4.237	105.93
		x 1/2	5.578	139.45
8	x 6	x 1/2	7.952	198.80
		x 3/4	11.679	291.98



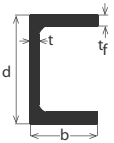
Aluminum Structural Channels

6061-T6
Federal Specification QQ-A-200/16
American Standard,
Stock Lengths 25 Ft.

Size in Inches A	B	C	Est. Lbs. Per Ft.	Est. Lbs. Per 25'
3	x 1.410	x .170	1.417	35.43
3	x 1.498	x .258	1.729	43.23
3	x 1.596	x .356	2.074	51.85
4	x 1.580	x .180	1.846	46.15
4	x 1.647	x .247	2.161	54.03
4	x 1.720	x .320	2.504	62.60
5	x 1.750	x .190	2.316	57.90
5	x 1.885	x .325	3.108	77.70
5	x 2.032	x .472	3.975	99.38
6	x 1.920	x .200	2.826	70.65
6	x 1.945	x .225	3.002	75.05
6	x 2.034	x .314	3.631	90.78
6	x 2.157	x .437	4.498	112.45
7	x 2.110	x .230	3.541	88.53
7	x 2.194	x .314	4.232	105.80
8	x 2.290	x .250	4.252	106.30
8	x 2.343	x .303	4.751	118.78
8	x 2.435	x .395	5.617	140.43
8	x 2.527	x .487	6.484	162.10
9	x 2.430	x .230	4.604	115.10
9	x 2.648	x .448	6.911	172.78
10	x 2.600	x .240	5.278	131.95
10	x 2.739	x .379	6.915	172.88
10	x 2.886	x .526	8.641	216.03
12	x 2.960	x .300	7.411	185.28
12	x 3.047	x .387	8.639	215.98
12	x 3.170	x .510	10.374	259.35
15	x 3.400	x .400	11.708	292.70
15	x 3.716	x .716	17.282	432.05

ALUMINUM CHANNELS
ALUMINUM ASSOCIATION
6061-T6 (Extruded)

AMS-QQ-A-200/8 (Except for Marking)
ASTM B 221 ASTM B 308
Stock Lengths 25 Ft.



Depth d In.	Flange b In.	Web t In.	Flange Thickness t_f In.	Lbs. per Ft.	Depth d In.	Flange b In.	Web t In.	Flange Thickness tf In.	Lbs. per Ft.
2	1.00	.13	.13	.5774	6	3.25	.21	.35	4.030
2	1.25	.17	.26	1.071	7	3.50	.21	.38	4.715
3	1.50	.13	.20	1.135	8	3.00	.19	.35	4.147
3	1.75	.17	.26	1.597	8	3.75	.25	.41	5.789
4	2.00	.15	.23	1.738	9	3.25	.23	.35	4.982
4	2.25	.19	.29	2.331					
5	2.25	.15	.26	2.212	10	3.50	.25	.41	6.138
5	2.75	.19	.32	3.089	10	4.25	.31	.50	8.359
6	2.50	.17	.29	2.834	12	4.00	.29	.47	8.274

Aluminum Rectangular Bars

6061-T6, 6063, 2024
Federal Specification QQ-A-200/8
Extruded, Stock Lengths 12 Ft.

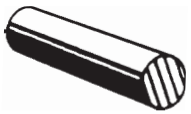
Size in Inches			Est. Lbs. Per Ft.	Est. Lbs. Per 12'
1/8	x	1/2	.074	0.89
	x	5/8	.092	1.10
	x	3/4	.110	1.32
	x	1	.147	1.76
	x	1 1/4	.184	2.21
	x	1 1/2	.221	2.65
	x	1 3/4	.257	3.08
	x	2	.294	3.53
	x	2 1/2	.368	4.42
	x	3	.441	5.29
	x	4	.588	7.06
	x	6	.882	10.58
3/16	x	3/4	.165	1.98
	x	1	.221	2.65
	x	1 1/4	.276	3.31
	x	1 1/2	.331	3.97
	x	2	.441	5.29
	x	3	.662	7.94
1/4	x	1/2	.147	1.76
	x	3/4	.221	2.65
	x	1	.294	3.53
	x	1 1/4	.368	4.42
	x	1 1/2	.441	5.29
	x	1 3/4	.515	6.18
	x	2	.588	7.06
	x	2 1/2	.735	8.82
	x	3	.882	10.50
	x	3 1/2	1.029	12.35
	x	4	1.176	14.11
	x	5	1.470	17.64
	x	6	1.764	21.17
5/16	x	3/4	.276	3.31
	x	1	.368	4.42
	x	1 1/4	.459	5.51
	x	1 1/2	.551	6.61
	x	2	.713	8.56
3/8	x	1/2	.221	2.65
	x	3/4	.331	3.97
	x	1	.441	5.29
	x	1 1/4	.551	6.61
	x	1 1/2	.661	7.93
	x	2	.882	10.58
	x	2 1/2	1.103	13.24
	x	3	1.323	15.88

Aluminum Rectangular Bars (con't)

Size in Inches			Est. Lbs. Per Ft.	Est. Lbs. Per 12'
3/8	x	4	1.764	21.17
	x	6	2.646	31.75
1/2	x	3/4	.441	5.29
	x	1	.588	7.06
	x	1 1/4	.735	8.82
	x	1 1/2	.882	10.58
	x	1 3/4	1.029	12.35
	x	2	1.176	14.11
	x	2 1/2	1.470	17.64
	x	3	1.764	21.17
	x	4	2.352	28.22
	x	5	2.940	35.28
	x	6	3.528	42.34
5/8	x	3/4	.551	6.61
	x	1	.735	8.82
	x	1 1/4	.919	11.03
	x	1 1/2	1.103	13.24
	x	2	1.470	17.64
	x	3	2.205	26.46
3/4	x	1	.882	10.58
	x	1 1/4	1.103	13.24
	x	1 1/2	1.323	15.88
	x	2	1.764	21.17
	x	2 1/2	2.205	26.46
	x	3	2.646	31.75
	x	3 1/2	3.087	37.04
	x	4	3.528	42.34
	x	5	4.410	52.92
	x	6	5.292	63.50
1	x	1 1/4	1.470	17.64
	x	1 1/2	1.764	21.17
	x	2	2.352	28.22
	x	2 1/2	2.940	35.28
	x	3	3.528	42.34
	x	4	4.704	56.45
	x	6	7.056	84.67
1 1/4	x	1 1/2	2.205	26.46
	x	2	2.940	35.28
	x	2 1/2	3.675	44.10
	x	3	4.410	52.92
	x	4	5.880	70.56
1 1/2	x	2	3.528	42.34
	x	2 1/2	4.410	52.92
	x	3	5.292	63.50
	x	4	7.056	84.67
	x	6	10.584	127.01

Aluminum Rectangular Bars (con't)

Size in Inches			Est. Lbs. Per Ft.	Est. Lbs. Per 12'
2	x	2 1/2	5.880	70.56
	x	3	7.056	84.67
	x	4	9.408	112.90
3	x	4	14.112	169.34
	x	5	17.640	211.68



Aluminum Rounds

6061-T6, Federal Specification QQ-A-225/8,
Cold Finished
Federal Specification QQ-A-200/8
Extruded, Stock Lengths 12 Ft.

Size in Inches	Est. Lbs. Per Ft.	Est. Lbs. Per 12'
1/8	.014	.17
3/16	.033	.39
1/4	.058	.70
5/16	.090	1.08
3/8	.130	1.56
7/16	.177	2.12
1/2	.231	2.77
9/16	.292	3.50
5/8	.361	4.33
3/4	.520	6.24
7/8	.707	8.48
1	.924	11.09
1 1/8	1.169	14.03
1 1/4	1.443	17.32
1 5/16	1.591	19.09
1 3/8	1.746	20.95
1 7/16	1.909	22.91
1 1/2	2.078	24.94
1 5/8	2.439	29.27
1 3/4	2.829	33.95
1 13/16	3.034	36.41
1 7/8	3.247	38.96
2	3.695	44.34
2 1/8	4.171	50.05
2 1/4	4.676	56.11
2 1/2	5.773	69.28
2 5/8	6.364	76.37
2 3/4	6.985	83.82
3	8.313	99.76
3 1/4	9.776	117.31
3 1/2	11.315	135.78

ALUMINUM

Aluminum Rounds (con't)

Size in Inches	Est. Lbs. Per Ft.	Est. Lbs. Per 12'
3 5/8	12.152	145.82
3 3/4	12.989	155.87
4	14.778	177.34
4 1/4	16.683	200.20
4 1/2	18.704	244.45
5	23.070	276.84
5 1/2	27.940	335.28
6	33.251	399.01
6 1/2	39.023	468.28
7	45.258	543.10
7 1/2	51.954	623.45
8	59.112	709.34
9	74.814	897.77
10	92.363	1,108.36

ALUMINUM SQUARES
6061-T6511 (Extruded)

AMS-QQ-A-200/8 ASTM B 221
Identified Stock Lengths 12 Ft.

Size in Inches	Lbs. per Ft.	Est. Lbs. 12' Bar
1/2	.2940	3.528
5/8	.4600	5.508
3/4	.6615	7.938
7/8	.9010	10.81
1	1.176	14.11
1 1/4	1.838	22.06
1 1/2	2.646	31.75
1 5/8	3.108	37.30
1 3/4	3.600	43.20
2	4.704	56.45

Aluminum Square Tubing

6063-T52 Extruded
Stock lengths: 21' 1" and 24'

Size in Inches	Average Wall in Inches	Lbs. per Foot
3/4	.125	0.368
1	.062	0.280
1	.125	0.516
1-1/4	.125	0.676
1-1/2	.063	0.430
1-1/2	.125	0.810
2	.094	0.851
2	.125	1.103
3	.125	1.691
3	.188	2.540
4	.188	3.440

Aluminum Rectangular Tubing

6063-T52 Extruded
Stock lengths: 21' 1" and 24'

Size in Inches	Average Wall in Inches	Lbs. per Foot
2 x 1	.125	0.809
2 x 1-1/2	.125	0.956
3 x 1-1/2	.125	1.237
4 x 2	.125	1.724

Aluminum Pipe

6063-T52 & 6061-T6
Stock lengths: 20

Nom. Pipe size in Inches	O.D. in Inches	I.D. in Inches	Avg. Wall Thichness	Lbs. per Foot	6063-T52	6061-T6
SCHEDULE 40						
3/4	1.050	.824	.113	0.391	X	
1	1.315	1.049	.133	1.315	X	X
1-1/4	1.660	1.380	.140	0.786	X	X
1-1/2	1.900	1.610	.145	0.940	X	X
2	2.375	2.067	.154	1.264	X	X
2-1/2	2.875	2.469	.203	2.004	X	
6	6.625	6.065	.280	6.654		X
SCHEDULE 80						
1-1/2	1.900	1.500	.200	1.256	X	
2-1/2	2.875	2.323	.276	2.650		X