

## GUIDE TO SELECTION Aluminum Plate, Sheet and Coil

### NON-HEAT TREATABLE ALLOYS

#### 1100

This low-strength alloy has excellent corrosion resistance, has satisfactory anodizing and conversion coating finishing characteristics, and is unmatched by any other commercial aluminum alloy in workability. It lends itself readily to welding, brazing and soldering, but tends toward gumminess when machined.

#### 3003

About 20% higher in strength than 1100 but retains an excellent workability rating. It is easily welded and brazed, but soldering is limited to the torch method. Like 1100, tends to be gummy when machined, but will perform somewhat satisfactorily in the higher tempers with the proper set-up and maximum speeds.

#### 3105

Near 3003 in strength, this alloy has excellent corrosion resistance and finishes well although, if anodized, would not be chosen if aesthetics is a factor. Adapts to welding only in the hot joining processes and is not recommended for drawing or complex forming operations.

#### 5005

Comparable to 3003 in strength and close to it in formability, but this alloy has superior finishing characteristics making it much better for anodizing. Excellent corrosion resistance and weldability, but would rate somewhat below 1100 and 3003 for brazing and soldering, and it is not the alloy one would choose for machinability.

#### 5052

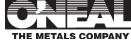
This alloy is one of the highest strength non-heat treatable alloys commercially available. Although easily welded, it is not recommended for brazing and soldering applications. Excellent corrosion resistance, particularly in marine applications, and adapts to most mechanical and finishing processes although the heavier anodic films may take on a yellowish cast.

#### 5083

With excellent corrosion resistance and weldability, together with high strength, this alloy was designed for welded structures requiring maximum joint strength and efficiency. Can be anodized for increased corrosion resistance, but does not lend itself to decorative applications. Not meant to be a machining alloy, but can be machined fairly well with proper preparations. Because of its relatively high magnesium content, the workability rating would be only fair.

#### 5086

Sister alloy to 5083 with comparable characteristics but slightly less strength.



## GUIDE TO SELECTION

### Aluminum Plate, Sheet and Coil

#### NON-HEAT TREATABLE ALLOYS - Continued

##### 5454

Excellent corrosion resistance, and, unlike the other magnesium alloys, it maintains that rating when functioning in the 150 degrees F to 300 degrees F range where the others would be prone to stress corrosion. Not a decorative alloy, but well adapted to the applied finishing processes. High strength, excellent weldability, fair formability, and poor machinability.

##### 5456

Highest in strength of the commercially available non-heat treatable alloys with excellent corrosion resistance. Only fair workability and machinability, but excellent weldability. Not recommended for brazing or soldering.

#### HEAT-TREATABLE ALLOYS

##### 2014

With only fair corrosion resistance, this alloy must have protective finishing in most environments and is usually used in Alclad form. Very high strength, even at relatively high temperatures, satisfactory finishability, fair to good workability and weldability, and good machinability.

##### 2024

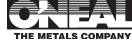
Thought of as the "aircraft" alloy because of its strength, the alloy has only fair corrosion resistance, but good machinability. Lends itself only to resistance welding as a hot joining process and is not recommended for brazing or soldering. In the annealed state, it has good workability but is only fair to poor in tempers.

##### 6061

Very good corrosion resistance and finishability plus excellent weldability and a strength level approximating that of mild steel, this is a popular general-purpose alloy. Machinability is good and, in the annealed state, its workability carries a high rating, starting at the "good" level if heat-treated without aging.

##### 7075

One of the highest strength, commercially available alloys with fair corrosion resistance and machinability. Low workability rating and welded only by the resistance process.



# ALUMINUM SHEET

# 3003-H14

MILL FINISH  
QQ-A-250/2

Thickness In Inches	Size in Inches	Weight Pounds per Sheet (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Sheet (Estimated)
<b>.020 (.285 lbs./sq. ft.)</b>			<b>.063 (.898 lbs./sq. ft.)</b>		
	36 x 96	6.8		36 x 96	21.5
	36 x 120	8.5		36 x 120	26.8
<b>.025 (.356 lbs./sq. ft.)</b>				48 x 96	28.6
	36 x 96	8.5		48 x 120	35.8
	36 x 120	10.6		48 x 144	43.0
	48 x 120	14.2		60 x 120	44.9
	48 x 144	16.9		60 x 144	53.7
<b>.032 (.456 lbs./sq. ft.)</b>			<b>.080 (1.14 lbs./sq. ft.)</b>		
	36 x 96	10.9		36 x 96	27.1
	36 x 120	13.6		48 x 120	45.2
	48 x 96	14.5		48 x 144	54.2
	48 x 120	18.2		60 x 120	57.0
	48 x 144	21.8		60 x 144	67.8
<b>.040 (.570 lbs./sq.ft.)</b>			<b>.090 (1.28 lbs./sq. ft.)</b>		
	36 x 96	36.6		36 x 96	30.7
	36 x 120	17.0		48 x 96	41.1
	48 x 96	18.2		48 x 144	61.4
	48 x 120	22.7		60 x 120	64.0
	48 x 144	27.3		60 x 144	76.8
	60 x 144	33.8	<b>.100 (1.43 lbs./sq. ft.)</b>		
<b>.050 (.713 lbs./sq. ft.)</b>				48 x 144	68.1
	36 x 96	17.0	<b>.125 (1.78 lbs./sq. ft.)</b>		
	36 x 120	21.3		36 x 96	42.4
	48 x 96	22.7		48 x 96	56.3
	48 x 120	28.4		48 x 120	70.8
	48 x 144	34.1		48 x 144	84.9
	60 x 120	35.7		60 x 120	89.0
	60 x 144	42.6		60 x 144	106.2
			<b>.190 (2.71 lbs./sq. ft.)</b>		
				36 x 96	64.8
				48 x 120	108.0
				48 x 144	129.6
				60 x 120	135.5
				60 x 144	162.0

**ALUMINUM**



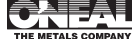


# ALUMINUM SHEET

5052-H32

MILL FINISH  
QQ-A-250/8

Thickness In Inches	Size in Inches	Weight Pounds per Sheet (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Sheet (Estimated)
<b>.032 (.447 lbs./sq. ft.)</b>			<b>.090 (1.26 lbs./sq. ft.)</b>		
	48 x 144	21.2		48 x 96	30.5
				48 x 120	41.2
<b>.040 (.563 lbs./sq. ft.)</b>				48 x 144	59.8
	48 x 96	18.1		60 x 120	63.0
	48 x 144	26.7		60 x 144	75.6
<b>.050 (.699 lbs./sq. ft.)</b>			<b>.100 (1.40 lbs./sq. ft.)</b>		
	48 x 96	22.6		48 x 144	66.3
	48 x 120	28.2		60 x 144	84.0
	48 x 144	33.2	<b>.125 (1.75 lbs./sq. ft.)</b>		
	60 x 144	41.9		48 x 120	70.6
<b>.063 (.880 lbs./sq. ft.)</b>				48 x 144	82.6
	48 x 96	28.5		60 x 120	87.5
	48 x 120	35.6		60 x 144	105.0
	48 x 144	41.8	<b>.190 (2.65 lbs./sq. ft.)</b>		
	60 x 120	44.0		48 x 144	126.0
	60 x 144	52.8		60 x 144	159.0
<b>.080 (1.12 lbs./sq. ft.)</b>					
	48 x 96	36.5			
	48 x 120	44.8			
	48 x 144	53.1			
	60 x 120	56.0			
	60 x 144	67.2			



## ALUMINUM SHEET

5052-H34

MILL FINISH  
QQ-A-250/8

Thickness In Inches	Size in Inches	Weight Pounds per Sheet (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Sheet (Estimated)
.032 (.477 lbs./sq. ft.)	48 x 144	21.2	.090 (1.26 lbs./sq. ft.)	48 x 144	59.8
.040 (.563 lbs./sq. ft.)	48 x 144	26.7	.100 (1.40 lbs./sq. ft.)	48 x 144	66.3
.050 (.699 lbs./sq. ft.)	48 x 144	33.2	.125 (1.75 lbs./sq. ft.)	48 x 144	82.6
.063 (.880 lbs./sq. ft.)	48 x 144	41.8	.190 (2.65 lbs./sq. ft.)	48 x 144	126.0
.080 (1.12 lbs./sq. ft.)	48 x 144	53.1			

## ALUMINUM SHEET

5086-H116

MILL FINISH  
QQ-A-250/7

Thickness In Inches	Size in Inches	Weight Pounds per Sheet (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Sheet (Estimated)
.125 (1.728 lbs./sq. ft.)	48 x 240	138.24	.188 (2.596 lbs./sq. ft.)	48 x 240	207.68
	60 x 240	172.80		60 x 240	259.60
	72 x 240	207.36		72 x 240	311.52
	84 x 240	241.92		84 x 240	363.44
	96 x 240	276.48		96 x 240	415.36

**ALUMINUM**

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# ALUMINUM SHEET

6061-T6

MILL FINISH  
QQ-A-250/11

Thickness In Inches	Size in Inches	Weight Pounds per Sheet (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Sheet (Estimated)
.025	(.357 lbs./sq. ft.) 36 x 144	12.8	.080	(1.13 lbs./sq. ft.) 48 x 144	54.2
.032	(.452 lbs./sq. ft.) 48 x 144	21.6	.090	(1.27 lbs./sq. ft.) 48 x 144	61.0
.040	(.569 lbs./sq. ft.) 48 x 144	27.3	.100	(1.41 lbs./sq. ft.) 48 x 144	67.7
.050	(.706 lbs./sq. ft.) 48 x 144	33.9	.125	(1.76 lbs./sq. ft.) 48 x 144 60 x 144	84.5 105.8
.063	(.889 lbs./sq. ft.) 48 x 144	42.7	.190	(2.68 lbs./sq. ft.) 48 x 144 60 x 144	128.6 160.8

# ALUMINUM COIL

3003-H14

MILL FINISH  
QQ-A-250/2

20 Inch I.D. – 7,000 Pounds Coils (Approximate)

Thickness In Inches	Size in Inches	Weight Pounds per Linear Foot (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Linear Foot (Estimated)
.020	36	.86	.080	36	3.42
.025	36	1.08		48	4.56
	48	1.43		60	5.70
.032	36	1.34	.090	36	3.84
	48	1.82		48	5.12
.040	36	1.71		60	6.42
	48	2.28	.100	36	4.28
	60	2.85		48	5.70
.050	36	2.14	.125	36	5.35
	48	2.85		48	7.13
.063	36	2.69		60	8.91
	48	3.59	.190	36	8.91
	60	4.49		48	10.83

**ALUMINUM**

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These coils can be roller leveled and cut to length to your exact specifications.



## ALUMINUM COIL

MILL FINISH

QQ-A-250/8

5052-H32  
& H34

20 Inch I.D. – 7,000 Pounds Coils (Approximate)

Thickness In Inches	Size in Inches	Weight Pounds per Linear Foot (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Linear Foot (Estimated)
.032	48	1.78	.090	36	3.84
.040	36	1.72		48	5.12
	48	2.30		60	6.35
.050	48	2.85	.100	48	5.64
.063	48	3.59	.125	48	7.04
.080	48	4.60		60	8.80

These coils can be roller leveled and cut to length to your exact specifications.

## STUCCO EMBOSSED SHEET AND COIL

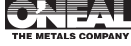
3003-H154

20 Inch I.D. – 7,000 Pounds Coils (Approximate)

Thickness In Inches	Size in Inches	Weight Pounds per Sheet (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Sheet (Estimated)
<b>.025 (.361 lbs./sq.ft.)</b>	36 x Coil		<b>.040 (.575 lbs./sq. ft.)</b>	48 x 120	23.0
	48 x 120	14.44		48 x Coil	
	48 x Coil				
<b>.032 (.446 lbs./sq. ft.)</b>	36 x 120	13.38			
	36 x Coil				
	48 x Coil				

ALUMINUM

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**ALUMINUM TREAD  
BRITE COIL**

3003

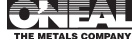
Thickness	Size in Inches	Weight Pounds per Square Foot
.063	48 x Coil 60 x Coil	1.004
.100	48 x Coil 60 x Coil	1.570 1.570
.125	48 x Coil 60 x Coil	1.920
.188	48 x Coil 60 x Coil	2.282
.250	48 x Coil 60 x Coil	3.750

**ALUMINUM PLATE**

3003-H14

MILL FINISH  
QQ-A-250/2

Thickness In Inches	Size in Inches	Weight Pounds per Plate (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Plate (Estimated)
.250 (3.53 lbs./sq. ft.)					
	48 x 144	169.0			
	60 x 144	211.7			



## ALUMINUM PLATE

2024-T351

MILL FINISH  
QQ-A-250/4

Thickness In Inches	Size in Inches	Weight Pounds per Plate (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Plate (Estimated)
.250 (3.60 lbs./sq. ft.)	48 x 144	172.8	1.250 (18.00 lbs./sq. ft.)	48 x 144	864.0
.375 (5.40 lbs./sq. ft.)	48 x 144	259.2	1.500 (21.60 lbs./sq. ft.)	48 x 144	1016.2
.500 (7.20 lbs./sq. ft.)	48 x 144	345.6	2.000 (28.80 lbs./sq. ft.)	48 x 144	1355.0
.750 (10.80 lbs./sq. ft.)	48 x 144	518.4	2.500 (36.0 lbs./sq. ft.)	48 x 144	1693.92
1.00 (14.40 lbs./sq. ft.)	48 x 144	691.2	3.000 (43.20 lbs./sq. ft.)	48 x 144	2032.32

## ALUMINUM PLATE

5052-H32

MILL FINISH  
QQ-A-250/8

Thickness In Inches	Size in Inches	Weight Pounds per Plate (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Plate (Estimated)
.250 (3.49 lbs./sq. ft.)	48 x 144 60 x 120	166.0 174.5	.375 (5.238 lbs./sq. ft.)	48 x 144	251.42
			.500 (6.984 lbs./sq. ft.)	48 x 144	335.23

ALUMINUM





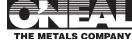
# ALUMINUM PLATE

5086-H116

MILL FINISH  
QQ-A-250/7

Thickness In Inches	Size in Inches	Weight Pounds per Plate (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Plate (Estimated)
<b>.250 (3.456 lbs./sq. ft.)</b>			<b>.500 (6.912 lbs./sq. ft.)</b>		
	48 x 240	276.48		60 x 240	691.20
	60 x 240	345.60		72 x 240	829.44
	72 x 240	414.72		84 x 240	967.68
	84 x 240	483.84		96 x 240	1105.92
	96 x 240	552.96		108 x 240	1244.16
	120 x 240	691.20		120 x 240	1382.40
<b>.313 (4.329 lbs./sq. ft.)</b>			<b>.750 (10.37 lbs./sq. ft.)</b>		
	60 x 240	432.90		60 x 240	1037.00
	72 x 240	519.48		72 x 240	1244.40
	84 x 240	606.06		84 x 240	1451.80
	120 x 240	865.80		96 x 240	1659.20
<b>.375 (5.184 lbs./sq. ft.)</b>				108 x 240	1866.60
	48 x 240	414.72		120 x 240	2074.00
	60 x 240	518.40	<b>1.00 (13.82 lbs./sq. ft.)</b>		
	72 x 240	622.08		60 x 240	1382.00
	84 x 240	725.76		72 x 240	1658.40
	96 x 240	829.44		84 x 240	1934.80
	120 x 240	1036.80		96 x 240	2211.20
				108 x 240	2487.60
				120 x 240	2764.00

Other sizes and thickness available from mill.



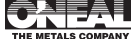
# ALUMINUM PLATE

6061-T651

MILL FINISH  
QQ-A-250/11

Thickness In Inches	Size in Inches	Weight Pounds per Plate (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Plate (Estimated)
<b>.250 (3.53 lbs./sq. ft.)</b>			<b>1.250 (17.64 lbs./sq. ft.)</b>		
	48 ½ x 96 ½	113.0		48 ½ x 144 ½	846.7
	48 ½ x 144 ½	169.4		60 ½ x 144 ½	1070.9
	60 ½ x 144 ½	211.8	<b>1.500 (21.16 lbs./sq. ft.)</b>		
	72 ½ x 144 ½	254.2		48 ½ x 144 ½	1015.7
<b>.313 (4.41 lbs./sq. ft.)</b>				60 ½ x 144 ½	1284.6
	48 ½ x 144 ½	211.7	<b>2.000 (28.22 lbs./sq. ft.)</b>		
<b>.378 (5.29 lbs./sq. ft.)</b>				48 ½ x 144 ½	1354.6
	48 ½ x 144 ½	254.0		60 ½ x 144 ½	1713.2
	60 ½ x 144 ½	317.4	<b>2.500 (35.28 lbs./sq. ft.)</b>		
<b>.500 (7.06 lbs./sq. ft.)</b>				48 ½ x 144 ½	1693.92
	48 ½ x 144 ½	339.0		60 ½ x 144 ½	2141.9
	60 ½ x 144 ½	424.0	<b>3.000 (42.33 lbs./sq. ft.)</b>		
<b>.625 (8.82 lbs./sq. ft.)</b>				48 ½ x 144 ½	2710.0
	48 ½ x 144 ½	423.4	<b>5.000 (70.56 lbs./sq. ft.)</b>		
<b>.750 (10.58 lbs./sq. ft.)</b>				48 ½ x 144 ½	3387.0
	48 ½ x 144 ½	507.8	<b>6.000 (84.67 lbs./sq. ft.)</b>		
	60 ½ x 144 ½	634.8		48 ½ x 144 ½	4064.0
<b>1.000 (14.11 lbs./sq. ft.)</b>					
	48 ½ x 144 ½	677.3			
	60 ½ x 144 ½	856.7			

**ALUMINUM**



## PRECISION CAST ALUMINUM TOOLING PLATE

Thickness In Inches	Nominal Weight (lbs)		
	48 x 96	48 x 144	60 x 144
1/4	116		
5/16	145		
3/8	175		
1/2	233	349	436
5/8	291	436	545
3/4	349	524	654
1	465	698	873
1-1/4	582	873	1091
1-1/2	698	1047	1309
1-3/4	814	1222	1527
2	931	1396	1745
2-1/2	1164	1745	2182
3	1396	2094	2618
3-1/2	1629	2443	3054
4	1862	2792	3491
5	2327	3491	4363
6	2792	4189	5236
7	3257	4887	6108
8	3724	5585	6981
9	4188	6283	7854
10	4654	6982	8726
12	5584	8378	10471
14	6515	9774	
15	6918	10472	



## ALUMINUM TREAD PLATE

6061-T6

MILL FINISH  
ASTM B-632

Thickness In Inches	Size in Inches	Weight Pounds per Plate (Estimated)	Thickness in Inches	Size in Inches	Weight Pounds per Plate (Estimated)
.100 (1.60 lbs./sq. ft.)	48 x 192	102.0	.250 (3.70 lbs./sq. ft.)	48 x 120	147.0
				48 x 144	176.0
.125 (1.90 lbs./sq. ft.)	48 x 192	122.0		48 x 192	237.0
	60 x 192	152.0		60 x 192	296.0
.188 (2.80 lbs./sq. ft.)				3.75 (5.43 lbs./sq. ft.)	
	48 x 144	134.0		48 x 192	348.0
	48 x 192	179.0	60 x 192	448.0	
	60 x 192	224.0	.500 (7.80 lbs./sq. ft.)		
			48 x 192	499.2	
			60 x 192	584.0	

## ALUMINUM TREAD BRITE

3003

Size Inches	Square Foot	Weight Pounds per Sheet (Estimated)
.100 x 48 x 96	1.57	50.24
.100 x 48 x 120	1.57	62.80
.100 x 48 x 144	1.57	75.36
.100 x 48 x 192	1.57	100.48
.125 x 48 x 96	1.92	61.44
.125 x 48 x 120	1.92	76.80
.125 x 48 x 144	1.92	92.16
.125 x 48 x 192	1.92	122.90
.188 x 48 x 192	2.82	180.48
.188 x 60 x 192	2.82	225.60
.250 x 48 x 192	3.75	240.00
.240 x 60 x 192	3.75	300.00

**ALUMINUM**



## GUIDE TO SELECTION Aluminum Bar (Cold Finished and Extruded)

### 2011

This free machining alloy compares favorably with free cutting brass. It can be machined at high speeds and comparatively heavy feeds. Machined surfaces are bright and smooth. Mechanical finished readily match joined parts. Mechanical properties and hardness are excellent; corrosion resistance fair. Weldability by resistance method is fair; other welding is not recommended.

### 2014

With only fair corrosion resistance, this alloy must have protective finishing in most environments and is usually used in Alclad form. Very high strength, even at relatively high temperatures, satisfactory finishability, fair to good workability and weldability, and good machinability.

### 2017

Like 2011, this is also a general-purpose alloy for automatic screw machine work. It is stronger than 2011, but harder to machine and does not have the fine chip associated with 2011. It is recommended for heavy-duty parts because of its high strength. Workability is fair, with ductility and formability considered better than 2014. Arc and resistance weldability are satisfactory. Corrosion resistance is fair.

### 2024

Known as the "aircraft alloy" in machining rod, this alloy has properties higher than 2017 and 2014. Though formability is generally considered only fair in the cold state, it is one of the most popular alloys for cold heading and roll threading applications. Can be machined to a high finish. Corrosion resistance is fair.

### 6061

Generally selected where welding or brazing is required or for its particularly high corrosion resistance in all tempers. Formability is excellent in temper, good in T4. Machining is more difficult than with other machining alloys; it is particularly gummy in condition, fair in hard tempers. Corrosion resistance and appearance after anodizing are highest of screw machine alloys, though properties are generally lower.

### 6262

Has excellent machinability, is readily welded, and has good corrosion resistance. Formability is fair in T6 temper, difficult in T9. Bright, smooth finish is easy to obtain.

### 7075/7175

7075 has been the strongest and hardest alloy sold commercially for decades. 7175 is more pure, but may not be suitable for fracture toughness applications. It is more difficult to forge than other alloys, but is often selected because of its properties. Machinability is good, resistance welding satisfactory, finishing characteristics excellent, corrosion resistance fair.



## ALUMINUM ROUND ROD

2011-T3

12 FOOT LENGTHS  
 QQ-A-255/3c

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
5/32	.023	1-1/8	1.22
3/16	.034	1-1/4	1.49
1/4	.060	1-5/16	1.66
5/16	.094	1-3/8	1.81
3/8	.135	1-7/16	2.00
7/16	.184	1-1/2	2.16
1/2	.240	1-5/8	2.53
9/16	.305	1-3/4	2.95
5/8	.375	1-7/8	3.37
11/16	.454	2	3.84
3/4	.540	2-1/4	4.86
13/16	.633	2-3/8	5.41
7/8	.735	2-1/2	6.00
15/16	.845	2-3/4	7.26
1	.960	3	8.64
1-1/16	1.080		

## ALUMINUM ROUND ROD

2024-T351

12 FOOT LENGTH  
 QQ-A-225/6c

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
1/8 (T4)	.014	1-3/4	2.88
3/16 (T4)	.033	1-7/8	3.30
1/4 (T4)	.059	2	3.76
5/16 (T4)	.092	2-1/8	4.24
3/8 (T4)	.132	2-1/4	4.76
7/16 (T4)	.180	2-3/8	5.30
1/2	.235	2-1/2	5.87
9/16	.297	2-3/4	7.10
5/8	.367	3	8.45
11/16	.444	3-1/8	9.19
3/4	.528	3-1/4	9.94
13/16	.620	3-1/2 (3-12 Ft. R/L)	11.53
7/8	.719	3-3/4	13.23
15/16	.825	4	15.06
1	.939	4-1/4	17.00
1-1/8	1.190	4-1/2	19.06
1-1/4	1.470	4-3/4	21.19
1-5/16	1.620	5	23.46
1-3/8	1.780	5-1/4	25.89
1-1/2	2.110	5-1/2	28.56
1-9/16	2.290	6	33.88
1-5/8	2.480	6-1/2 (T4)	39.76

**ALUMINUM**



# ALUMINUM ROUND ROD

6061-T651

12 FOOT LENGTHS  
QQ-A-225/8-COLD FINISHED  
ASTM B221-EXTRUDED

6061-T6511

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
1/8	.014	1-7/8	3.24
3/16	.032	2	3.69
1/4	.058	2-1/8	4.17
5/16	.090	2-1/4	4.67
3/8	.130	2-1/2	5.77
7/16	.177	2-3/4	6.98
1/2	.231	3	8.30
9/16	.291	3-1/4	9.74
5/8	.360	3-1/2 (3-12 Ft. R/L)	11.30
3/4	.519	3-3/4	"
7/8	.706	4	"
1	.923	4-1/2	"
1-1/8	1.170	5	"
1-1/4	1.440	5-1/2	"
1-3/8	1.740	6	"
1-1/2	2.080	6-1/2	"
1-5/8	2.440	7	"
1-3/4	2.820	8	"

1/2" dia.-Larger extruded

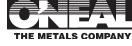
# ALUMINUM ROUND ROD

6063-T5

16 FOOT LENGTHS  
ASTM B221-EXTRUDED

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
1/2	.235	3/4	.530
5/8	.368	1	.942

**ALUMINUM**



## ALUMINUM SQUARE BAR

2024-T351

12 FOOT LENGTHS  
QQ-A-255/6c-COLD FINISHED

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
3/8 (T4)	.168	1-1/2	2.69
1/2	.299	1-3/4	3.66
5/8	.467	2	4.78
3/4	.672	2-1/2 (T3510)	7.50
7/8	.916	3 (T3510)	10.80
1	1.190	3-1/4 (6-12 Ft R/L)	12.66
1-1/8	1.510	3-1/2 (3-12 Ft R/L)	14.68
1-1/4	1.870	4 (3-12 Ft R/L)	19.18

## ALUMINUM SQUARE BAR

6061-T6511

12 FOOT LENGTHS  
ASTM B 221 – EXTRUDED

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
1/2	.299	1-1/2	2.69
3/4	6.72	2	4.78
1	1.190	2-1/2	7.50
1-1/4	1.870	3	10.80

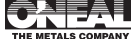
## ALUMINUM SQUARE BAR

6063-T5

16 FOOT LENGTHS  
ASTM B 221 – EXTRUDED

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
1/2	.300	1	1.20
3/4	.674	1-1/4	1.88

**ALUMINUM**



**ALUMINUM  
RECTANGULAR BAR**

6061-T6

12 FOOT LENGTHS  
ASTM B221-EXTRUDED

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
1/8 x 3/4	.115	1/4 x 3	.882
x 1	.147	x 4	1.175
x 1-1/2	.226	x 5	1.470
x 2	.294	x 6	1.817
3/16 x 3/4	.165	x 9	2.646
x 1	.220	x 12	3.528
x 1-1/2	.330	5/16 x 1	.367
x 2	.441	3/8 x 1/2	.224
1/4 x 1/2	.147	x 3/4	.330
x 5/8	.187	x 1	.441
x 3/4	.221	x 1-1/4	.551
x 1	.294	x 1-1/2	.661
x 1-1/4	.367	x 2	.881
x 1-1/2	.441	x 3	1.320
x 2	.587	x 4	1.760
x 2-1/2	.750	x 6	2.640

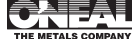
**ALUMINUM  
RECTANGULAR BAR**

6061-T6511

12 FOOT LENGTHS  
ASTM B221 – EXTRUDED

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
1/2 x 3/4	.440	1 x 1-1/4	1.47
x 1	.587	x 1-1/2	1.76
x 1-1/2	.881	x 2	2.35
x 2	1.180	x 2-1/2	3.00
x 2-1/2	1.470	x 3	3.53
x 3	1.760	x 4	4.70
x 4	2.350	x 6	7.05
x 6	3.520	1-1/4 x 2-1/2	3.67
5/8 x 1-1/2	1.100	x 3	4.40
x 2	1.470	1-1/2 x 2	3.52
3/4 x 1	.881	x 2-1/2	4.41
x 1-1/4	1.100	x 3	5.29
x 1-1/2	1.320	x 4	7.05
x 2	1.760	x 6	10.57
x 3	2.640	2 x 3	7.05
x 4	3.530	x 4	9.40
x 6	5.290	x 6	14.10

**ALUMINUM**



**ALUMINUM**  
**RECTANGULAR BAR**

6061-T6511

12 FOOT LENGTHS  
ASTM B221 – EXTRUDED

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
2-1/2 x 4	11.75	3 x 4	14.10
x 6	17.62	x 6	21.15

**ALUMINUM EXTRUDED**  
**RECTANGULAR BAR**

6063-T5

16 FOOT LENGTHS  
ASTM B221-EXTRUDED

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
1/8 x 1/2	.075	3/8 x 1/2	.225
x 5/8	.094	x 5/8	.280
x 3/4	.113	x 3/4	.337
x 1	.150	x 1	.450
x 1-1/4	.187	x 1-1/4	.564
x 1-1/2	.225	x 1-1/2	.675
x 2	.300	x 1-3/4	.771
x 3	.550	x 2	.900
x 4	.600	x 3	1.350
3/16 x 1/2	.113	x 4	1.760
x 3/4	.169	1/2 x 3/4	.450
x 1	.226	x 1	.600
x 1-1/4	.282	x 1-1/4	.750
x 1-1/2	.338	x 1-1/2	.900
x 2	.451	x 2	1.200
x 2-1/2	.564	x 2-1/2	1.500
1/4 x 1/2	.150	x 3	1.800
x 5/8	.187	3/4 x 1-1/2	1.350
x 3/4	.225	x 2	1.800
x 1	.300	x 2-1/2	2.200
x 1-1/4	.376	x 3	2.640
x 1-1/2	.450	x 4	3.520
x 1-3/4	.526	1 x 1-1/2	1.800
x 2	.600	x 2	2.400
x 2-1/2	.750	x 3	3.520
x 3	.900		
x 4	1.190		

**ALUMINUM**



**ALUMINUM  
HEXAGON BAR**

12 FOOT LENGTHS  
QQA255/6c – COLD FINISHED

2024-T351

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
5/16 (T4)	.101	1-1/4	1.62
3/8 (T4)	.146	1-1/2	2.33
1/2	.259	1-3/4	3.18
5/8	.405	1-7/8	3.65
11/16	.491	2-1/4	5.25
3/4	.584	2-1/2	6.48
1	1.040	2-3/4	7.85
1-1/8	1.310	3-3/8	9.48



## GUIDE TO SELECTION Aluminum Structural, Pipe, and Tubing

### **1100**

Commercially pure aluminum having good corrosion resistance, outstanding workability and good anodizing characteristics. Used where formability and corrosion resistance are major requirements and strength is relatively unimportant.

### **5083**

Designed for welded structures requiring maximum joint strength and efficiency, combined with light weight and corrosion resistance. Used principally in welded structural members subject to vibration and fatigue.

### **6061**

Most versatile of the heat-treatable group. Will take considerable forming in T4 temper. Good resistance to corrosion. Widely used where moderate strength is required.

### **6063**

Has best all around extruding properties. Can be used for comparatively intricate sections; excellent for hollow extrusions. Takes a good surface finish, is corrosion resistant and can be anodized. It can be precipitation heat treated to strengths just under 6061 alloy.

### **6101**

Used primarily for electrical conductor requiring moderate strength.

### **7075**

Used for aircraft structural members when extra strength is required. Can be formed by regular methods, but requires more care and precision. Can be spot welded but not fusion welded.



# ALUMINUM EQUAL ANGLES

ASTM B221  
25 FOOT LENGTHS

6061-T6



Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
3/4 x 3/4 x 1/8	.20	2-1/2 x 2-1/2 x 3/16	1.07
1 x 1 x 1/8	.28	x 1/4	1.40
x 3/16	.40	x 5/16	1.73
x 1/4	.51	3 x 3 x 3/16	1.28
1-1/4 x 1-1/4 x 1/8	.35	x 1/4	1.68
x 3/16	.51	x 5/16	2.08
x 1/4	.66	x 3/8	2.47
1-1/2 x 1-1/2 x 1/8	.43	3-1/2 x 3-1/2 x 5/16	2.46
x 3/16	.62	4 x 4 x 1/4	2.28
x 1/4	.81	x 5/16	2.83
1-3/4 x 1-3/4 x 1/8	.51	x 3/8	3.38
x 3/16	.74	5 x 5 x 3/8	4.28
x 1/4	.96	x 1/2	5.56
2 x 2 x 1/8	.57	6 x 6 x 3/8	5.12
x 3/16	.85	x 1/2	6.75
x 1/4	1.11	8 x 8 x 1/2	9.14
x 3/8	1.59		

# ALUMINUM UNEQUAL ANGLES

ASTM B221  
25 FOOT LENGTHS

6061-T6



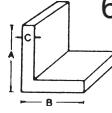
Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
1-1/2 x 1-1/4 x 1/8	.38	3 x 2 x 3/16	1.07
x 3/16	.57	x 1/4	1.40
x 1/4	.74	x 3/8	2.05
1-3/4 x 1-1/4 x 1/8	.42	3 x 2-1/2 x 1/4	1.54
x 3/16	.62	3-1/2 x 2-1/2 x 1/4	1.68
x 1/4	.81	4 x 3 x 1/4	1.99
2 x 1-1/2 x 1/8	.50	x 3/8	2.93
x 3/16	.73	5 x 3 x 3/8	3.35
x 1/4	.96	x 1/2	4.40
2-1/2 x 2 x 3/16	.96	6 x 4 x 3/8	4.24
x 1/4	1.26	x 1/2	5.58
x 5/16	1.55		

ALUMINUM



## ALUMINUM ANGLES

ANGLES – EQUAL AND UNEQUAL LEGS  
SHARP CORNERS, 16 FOOT LENGTHS  
ASTM B221



6063-T52

A Inches	B Inches	C Inches	Weight Pounds Foot (Estimated)
.500	.500	.062	.070
.500	.500	.125	.131
.500	1.000	.094	.158
.500	1.000	.125	.206
.500	1.250	.125	.244
.625	.625	.125	.168
.750	.750	.062	.108
.750	.750	.125	.206
.750	1.000	.125	.244
.750	1.500	.125	.319
1.000	1.000	.062	.145
1.000	1.000	.125	.281
1.000	1.000	.188	.408
1.000	1.500	.125	.356
1.000	2.000	.125	.431
1.250	1.250	.125	.356
1.250	1.250	.188	.519
1.250	3.500	.125	.694
1.500	1.500	.125	.431
1.500	1.500	.188	.633
1.750	1.750	.125	.506
2.000	2.000	.125	.581
2.000	2.000	.188	.857
2.000	2.000	.250	1.124



## ALUMINUM CHANNELS

AMERICAN STANDARD  
25 FOOT LENGTHS  
ASTM B221



6061-T6

SIZES IN INCHES			Weight Pounds Foot (Estimated)
Depth A	Flange Width B	Web Thickness C	
3	1.410	.170	1.42
	1.498	.258	1.73
	1.596	.356	2.07
4	1.580	.180	1.85
	1.647	.247	2.16
	1.720	.320	2.50
5	1.750	.190	2.32
	1.885	.325	3.11
	2.032	.472	3.97
6	1.920	.200	2.83
	1.945	.225	3.00
	2.034	.314	3.63
7	2.157	.437	4.48
	2.110	.230	3.54
	2.290	.250	4.25
8	2.343	.303	4.75
	2.527	.487	6.48
	2.600	.240	5.28
12	2.960	.300	7.41

## ALUMINUM CHANNELS

ALUMINUM ASSOCIATION  
25 FOOT LENGTHS  
ASTM B221



6061-T6

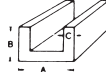
SIZES IN INCHES			Weight Pounds Foot (Estimated)
Depth A	Flange Width B	Web Thickness C	
3	1.500	.130	1.135
	1.750	.170	1.597
4	2.000	.150	1.728
	2.250	.190	2.332
5	2.250	.150	2.212
	2.750	.190	3.089
6	2.500	.170	2.834
	3.250	.210	4.030
8	3.000	.190	4.147
	3.750	.250	5.789
10	3.750	.250	5.789
	3.500	.250	6.136
	4.250	.310	8.360



# ALUMINUM CHANNELS

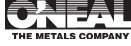
SHARP CORNERS, 16 FOOT LENGTHS  
ASTM B221

6063-T52



A Inches	B Inches	C Inches	Weight Pounds Foot (Estimated)
.500	.500	.094	.148
.500	.750	.125	.263
.625	.625	.125	.244
.750	.375	.125	.187
.750	.750	.125	.300
1.000	.500	.125	.263
1.000	1.000	.125	.413
1.250	.500	.125	.300
1.250	1.250	.125	.526
1.438	.500	.094	.251
1.500	.500	.125	.337
1.750	.500	.125	.374
1.750	.750	.125	.450
1.750	1.000	.125	.524
2.000	.500	.125	.413
2.000	1.000	.125	.564
2.250	.875	.125	.563
2.500	1.500	.125	.787
3.000	.500	.125	.563
3.000	1.000	.125	.713

**ALUMINUM**



## ALUMINUM H-BEAMS

25 FOOT LENGTHS  
ASTM B221



6061-T6

SIZES IN INCHES			Weight Pounds Foot (Estimated)
Depth A	Flange Width B	Web Thickness C	
4	4.000	.313	4.76
5	5.000	.313	6.49
6	5.938	.250	7.85
6	6.000	.240	5.40
8	5.250	.230	5.91
8	6.500	.245	8.32
8	8.000	.288	10.73

## ALUMINUM I-BEAMS

AMERICAN STANDARD  
25 FOOT LENGTHS  
ASTM B221

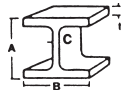


6061-T6

SIZES IN INCHES			Weight Pounds Foot (Estimated)
Depth A	Flange Width B	Web Thickness C	
3	2.330	.170	1.96
	2.509	.349	2.59
4	2.660	.190	2.64
	2.796	.326	3.28
5	3.000	.210	3.43
	3.284	.494	5.10
6	3.330	.230	4.30
	3.443	.343	5.10
8	4.000	.270	6.34

## ALUMINUM I-BEAMS

25 FOOT LENGTHS  
ALUMINUM ASSOCIATION  
ASTM B221



6061-T6

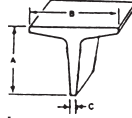
SIZES IN INCHES			Weight Pounds Foot (Estimated)
Depth A	Flange Width B	Web Thickness C	
3	2.50	.130	1.637
	2.50	.150	2.030
4	3.00	.150	2.310
	3.00	.770	2.675
5	3.50	.190	3.699
6	4.00	.190	4.030
	4.00	.210	4.693
8	5.00	.230	6.181
	5.00	.250	7.023



## ALUMINUM TEES

25 FOOT LENGTHS  
ASTM B221

6061-T6

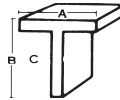


Size in Inches Flange x Stem x Thickness	Weight Pounds Foot (Estimated)
2 x 2 x 1/4	1.26
3 x 3 x 3/8	2.79

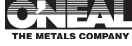
## ALUMINUM TEES

TEES – SHARP  
SHARP CORNERS, 16 FOOT LENGTHS  
ASTM B221

6063-T52



A Inches	B Inches	C Inches	Weight Pounds Foot (Estimated)
.750	.750	.125	.206
1.000	1.000	.125	.281

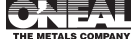


**ALUMINUM ROUND TUBING**  
ASTM B221  
24 FOOT LENGTHS

6061-T6  
6063-T52

Dimensions		Estimated Weight Per Foot (Pounds)
O.D.	Wall'	
.500	.062	.102
.750	.065	.168
.750	.125	.294
1.000	.125	.413
1.000	.188	.564
1.000	.250	.707
1.250	.125	.520
1.500	.125	.670
1.500	.250	1.178
2.000	.125	.883
2.000	.188	1.259
2.000	.250	1.649
2.500	.125	1.119
2.500	.188	1.639
2.500	.250	2.120
3.000	.125	1.327
3.000	.188	1.953
3.000	.250	2.592
3.500	.125	1.558
4.000	.125	1.790
4.000	.188	2.647
4.000	.250	3.463
5.000	.125	2.251
5.000	.188	3.342
5.000	.250	4.387
5.000	.375	6.408
6.000	.125	2.713
6.000	.188	4.037
6.000	.250	5.311
6.000	.375	7.793
7.000	.250	6.234
8.000	.188	5.426
8.000	.250	7.158
8.000	.375	10.564

**ALUMINUM**



## ALUMINUM SQUARE TUBING

SHARP CORNERS  
21' 1" LENGTHS

6063-T52

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
3/4 x 3/4	.125 .376		
1 x 1	.125 .526		
1-1/4 x 1-1/4	.125 .674		
1-1/2 x 1-1/2	.125 .825		
2 x 2	.125 1.126		

## ALUMINUM SQUARE TUBING

24 FOOT LENGTHS  
ASTM B221

6061-T6

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
2 x 2 x .188 Wall	1.636	3 x 3 x .250 Wall	3.298
2 x 2 x .250 Wall	2.100	4 x 4 x .188 Wall	3.372
3 x 3 x .188 Wall	2.538	4 x 4 x .250 Wall	4.500

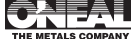
## ALUMINUM RECTANGULAR TUBING

SHARP CORNERS  
21' 1" LENGTHS

6063-T52

Size in Inches	Weight Pounds per Foot (Estimated)	Size in Inches	Weight Pounds per Foot (Estimated)
1/2 x 1	.125 .383	1-1/2 x 3	.125 1.339
3/4 x 1-1/2	.125 .604	x 3-1/2	.125 1.486
1 x 1-1/2	.125 .677	x 4	.125 1.633
x 2	.125 .824	x 4-1/2	.125 1.780
1-1/4 x 2-1/2	.125 1.045	x 5	.125 1.927
1-1/2 x 2	.125 .971	2 x 3	.125 1.412
		x 5	.125 2.000

**ALUMINUM**



**ALUMINUM PIPE  
SCHEDULE 40**

6063-T6

20 FOOT LENGTHS – PLAIN ENDS  
STRUCTURAL

I.P.S. in Inches	Diameter — Inches —		Wall Thickness Inches	Weight Pounds per Foot
	Outside	Inches		
1/2	.840	.622	.109	.294
3/4	1.050	.824	.113	.391
1	1.315	1.049	.133	.581
1-1/4	1.660	1.380	.140	.786
1-1/2	1.900	1.610	.145	.940
2	2.375	2.067	.154	1.260
2-1/2	2.875	2.469	.203	2.000
3	3.500	3.068	.216	2.620
3-1/2	4.000	3.548	.226	3.150
4	4.500	4.026	.237	3.730
5	5.563	5.047	.258	5.060
6	6.625	6.065	.280	6.560
8	8.625	7.981	.322	9.870
10	10.750	10.020	.365	14.000
12	12.750	12.000	.375	17.140

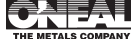
**ALUMINUM PIPE  
SCHEDULE 40**

6061-T6

20 FOOT LENGTHS – PLAIN ENDS  
STRUCTURAL

I.P.S. in Inches	Diameter — Inches —		Wall Thickness Inches	Weight Pounds per Foot
	Outside	Inches		
1/8	.405	.269	.068	.085
1/4	.540	.364	.088	.147
3/8	.675	.493	.091	.196
1/2	.840	.622	.109	.294
3/4	1.050	.824	.113	.391
1	1.315	1.049	.133	.581
1-1/4	1.660	1.380	.140	.786
1-1/2	1.900	1.610	.145	.940
2	2.375	2.067	.154	1.260
2-1/2	2.875	2.469	.203	2.000
3	3.500	3.068	.216	2.620
3-1/2	4.000	3.548	.226	3.150
4	4.500	4.026	.237	3.370
5	5.563	5.047	.258	5.060
6	6.625	6.065	.280	6.560
8	8.625	7.981	.322	9.880
10	10.750	10.020	.365	14.000
12	12.750	12.000	.375	17.140

**ALUMINUM**



# ALUMINUM PIPE SCHEDULE 80

6061-T6

20 FOOT LENGTHS – PLAIN ENDS  
STRUCTURAL

I.P.S. in Inches	Diameter — Inches —		Wall Thickness Inches	Weight Pounds per Foot
	Outside	Inches		
1	1.315	.957	.179	.75
1-1/4	1.660	1.378	.191	1.04
1-1/2	1.900	1.500	.200	1.25
2	2.375	1.939	.218	1.74
3	3.500	2.900	.300	3.54
3-1/2	4.000	3.364	.318	4.33
4	4.500	3.826	.337	5.18
5	5.563	4.813	.375	7.26
6	6.625	5.761	.432	9.98
8	8.625	7.625	.500	15.16

**ALUMINUM**



# ALUMINUM

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