



ALUMINUM

6061 ALUMINUM

Bare:	Tensile Strength (psi)	Yield Strength (psi)	Elongation % in 2		Min. 90° Cold Bend Radius for .064"	Brinell Hardness
			1/16"	1/2"		
6061-O	18,000	8,000	25	30	0	30
6061-T4, T451	35,000	21,000	22	25	1/2-1/2T	65
6061-T6, T651	45,000	40,000	12	17	1-2T	95
Alclad:						
6061-O	17,000	7,000	25	-	-	-
6061-T4	33,000	19,000	22	-	-	-
6061-T6	42,000	37,000	12	-	-	-

MACHINABILITY — For automatic screw machine operations, 6061 is rated between 70% and 80% of 2011 in the T4 and T6 conditions, and 50% in the O condition.

6061-T6 and 6061-T651 ROUNDS Lengths 12' Approx.

Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs	
	Per Foot	12-ft Lgth		Per Foot	12-ft Lgth		Per Foot	12-ft Lgth
1/8	.014	.174	1 1/16	2.63	31.6	4 5/8	19.8	238
3/16	.033	.391	3/4	2.83	34.0	3/4	20.8	251
1/4	.058	.694	13/16	3.04	35.6	5"	23.1	277
5/16	.090	1.08	7/8	3.25	39.1	1/8	24.3	292
3/8	.131	1.56	15/16	3.48	41.7	1/4	25.5	306
7/16	.177	2.12	2"	3.70	44.4	1/2	28.0	336
1/2	.231	2.77	1/8	4.18	50.1	5/8	29.2	350
9/16	.293	3.51	1/4	4.68	56.2	3/4	30.6	367
5/8	.361	4.34	3/8	5.22	62.6	6"	33.3	399
11/16	.437	5.25	7/16	5.50	66.0	1/8	34.7	416
3/4	.520	6.24	1/2	5.78	69.4	1/4	36.1	434
13/16	.611	7.32	5/8	6.37	76.5	1/2	39.1	469
7/8	.708	8.50	3/4	7.00	84.0	3/4	42.1	506
15/16	.813	9.76	7/8	7.65	91.8	7"	45.3	544
1"	.925	11.1	3"	8.32	99.8	1/4	48.7	584
1 1/16	1.05	12.6	1/8	9.03	108	1/2	52.0	624
1 1/8	1.17	14.0	1/4	9.79	117	3/4	55.6	667
3 1/16	1.31	15.6	3/8	10.5	126	8"	59.2	710
1 1/4	1.45	17.4	1/2	11.3	136	1/2	66.8	802
5 1/16	1.59	19.1	5/8	12.1	145	9"	75.0	900
3 1/8	1.75	21.0	3/4	13.1	156	1/2	83.4	1001
7 1/16	1.91	22.9	4"	14.8	178	10"	92.5	1110
1 1/2	2.08	25.0	1/8	15.7	188	11"	112	1344
9 1/16	2.26	27.1	1/4	16.7	201	12"	113	1596
5 1/8	2.44	29.3	1/2	18.7	225			

Extruded Rounds available to 24" dia.

6061 ALUMINUM

6061 Sheet

6061-O Soft Annealed | 6061-T4 Heat Treated | 6061-T6 Heat Treated & Aged

Thickness In Inches	Width and Length	Est. Wt. Lbs. per Sheet	Thickness In Inches	Width and Length	Est. Wt. Lbs. per Sheet	Thickness In Inches	Width and Length	Est. Wt. Lbs. per Sheet
.020 (.303 lb . per sq . ft .)			.063 (.921 lb . per sq . ft .)			.125 (1.81 lb . per sq . ft .)		
	36x144	10.9		36x96	22.1		36x96	43.4
	48x144	14.5		48x144	44.2		144	65.2
.025 (.375 lb . per sq . ft .)				60x144	55.3		48x144	86.9
	36x144	13.5	.071 (1.04 lb . per sq . ft .)				60x144	109
	48x144	18.0		48x144	49.9	.160 (2.33 lb . per sq . ft .)		
.032 (.476 lb . per sq . ft .)			.080 (1.17 lb . per sq . ft .)				36x96	55.9
	36x96	11.4		48x144	56.2		48x144	112
	48x144	22.8		60x144	70.2		60x144	140
.040 (.593 lb . per sq . ft .)				72x144	84.2	.190 (2.75 lb . per sq . ft .)		
	36x96	14.2	.090 (1.31 lb . per sq . ft .)				36x96	66.0
	48x144	28.5		48x144	62.9		48x144	132
.050 (.737 lb . per sq . ft .)				60x144	78.6		60x144	165
	36x96	17.7	.100 (1.46 lb . per sq . ft .)				180	206
	48x144	35.4		48x144	70.1		72x144	198
	60x144	44.2						

6061-T651 PLATE

Thickness In Inches	Width and Length	Est. Wt. Lbs. per Sheet	Thickness In Inches	Width and Length	Est. Wt. Lbs. per Sheet	Thickness In Inches	Width and Length	Est. Wt. Lbs. per Sheet
.250 (3.53 lb . per sq . ft .)			1.000 (14.1 lb . per sq . ft .)				60x144	2538
	36x96	84.7		48x144	677	3.500 (49.4 lb . per sq . ft .)		
	48x144	169		60x144	846		48x144	2371
	60x144	212	1.250 (17.6 lb . per sq . ft .)			4.000 (56.4 lb . per sq . ft .)		
	72x144	254		48x144	845		48x144	2707
.313 (4.42 lb . per sq . ft .)				60x144	1056	4.500 (63.6 lb . per sq . ft .)		
	48x144	212	1.500 (21.2 lb . per sq . ft .)				48x144	3053
.375 (5.29 lb . per sq . ft .)				48x144	1018	5.000 (70.6 lb . per sq . ft .)		
	36x96	127		60x144	1272		48x144	3389
	48x144	254	1.750 (24.7 lb . per sq . ft .)			6.000 (84.7 lb . per sq . ft .)		
	60x144	317		48x144	1186		48x144	4066
.500 (7.06 lb . per sq . ft .)			2.000 (28.2 lb . per sq . ft .)			7.000 (98.7 lb . per sq . ft .)		
	36x96	169		48x144	1354		48x144	4738
	48x144	339		60x144	1692	8.000 (112.8 lb . per sq ft)		
	60x144	424	2.250 (31.8 lb . per sq . ft .)				48x144	5414
.625 (8.82 lb . per sq . ft .)				48x144	1526	9.000 (126.9 lb . per sq ft)		
	36x96	212		60x144	1908		48x144	6091
	48x144	423	2.500 (35.3 lb . per sq . ft .)					
	60x144	529		48x144	1694			
.750 (10.6 lb . per sq . ft .)				60x144	2118			
	48x144	509	2.750 (38.8 lb . per sq . ft .)					
	60x144	636		48x144	1862			
.875 (12.3 lb . per sq . ft .)			3.000 (42.3 lb . per sq . ft .)					
	48x144	590		48x144	2030			

6061 ALUMINUM (Continued)

6061-T6 and 6061-T6511 RECTANGLES Lengths 12' Approx.

6061-T6 and 2024-T651
HEXAGONS
Lengths 12' Approx.

6061-T651 SQUARES
Lengths 12' Approx.

Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs	
	Per Foot	12-ft Lgth		Per Foot	12-ft Lgth		Per Foot	12-ft Lgth
3/8	.144	1.73	1/4	0.074	0.888	3/4	8.900	107
/2	.255	3.06	3/8	0.166	1.99	3"	10.60	128
5/8	.398	4.78	1/2	0.295	3.53	1/4	11.50	138
3/4	.574	6.88	9/16	0.373	4.48	1/2	14.40	172
7/8	.781	9.37	5/8	0.459	5.52	3/4	16.60	199
1"	1.020	12.3	3/4	0.662	7.95	4"	19.00	228
1/8	1.310	15.7	7/8	0.901	10.8	5"	29.50	354
1/4	1.590	19.1	1"	1.180	14.1			
3/8	1.930	23.1	1/8	1.490	17.9			
1/2	2.290	27.6	1/4	1.840	22.1			
11/16	2.900	34.8	3/8	2.230	26.8			
3/4	3.120	37.5	1/2	2.650	31.8			
2"	4.070	48.8	3/4	3.610	43.3			
1/4	5.170	62.0	2"	4.710	56.5			
7/16	6.060	72.7	1/4	5.950	71.4			
1/2	6.380	76.5	1/2	7.360	88.3			

6061-T6 ANGLES EXTRUDED
Lengths 25' Approx.

Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs	
	Per Foot	25-ft Lgth		Per Foot	25-ft Lgth		Per Foot	25-ft Lgth
3/4x3/4x1/8	0.20	5.00	1/4	1.11	27.8	4x4x1/4	2.28	57.0
1x1x1/8	0.28	7.00	2½x2x3/16	0.96	24.0	3/8	3.38	84.5
3/16	0.40	10.0	1/4	1.26	31.5	1/2	4.41	110
1/4	0.51	12.8	2½x2½x1/8	0.72	18.0	5x3x3/8	3.35	83.8
1¼x1¼x1/8	0.34	8.50	3/16	1.07	26.8	1/2	4.40	110
3/16	0.51	12.8	1/4	1.40	35.0	5x3½x1/2	4.70	118
1/4	0.66	16.5	3/8	2.05	51.3	5x5x3/8	4.28	107
1½x1¼x1/8	0.38	9.50	3x2x3/16	1.07	26.8	1/2	5.58	140
3/16	.57	14.3	1/4	1.40	35.0	6x4x3/8	4.24	106
1/4	.74	18.5	3/8	2.05	51.3	1/2	5.58	140
1½x1½x1/8	0.42	10.5	3x2½x1/4	1.54	38.5	6x6x3/8	5.12	128
3/16	0.62	15.5	3x3x3/16	1.28	32.0	1/2	6.75	169
1/4	0.81	20.3	1/4	1.68	42.0	5/8	8.42	210
1¾x1¾x1/4	0.42	10.5	3/8	2.47	61.8	3/4	10.1	253
1¾x1¾x1/8	0.51	12.8	1/2	3.41	85.3	8x8x1/2	9.14	229
3/16	0.74	18.5	3½x2½x1/4	1.68	42.0	3/4	13.5	337
1/4	0.96	24.0	3½x3½x1/4	1.99	49.8			
2x2x1/8	0.57	14.3	5/16	2.46	61.5			
3/16	0.85	21.3	3/8	2.93	73.3			
1/4	1.11	27.8	1/2	3.83	95.8			
3/8	1.59	39.8	4x3x1/4	1.99	49.8			
1/2	2.07	51.6	3/8	2.93	73.3			
2½x1½x3/16	0.85	21.3	1/2	3.83	95.8			

Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs	
	Per Foot	12-ft Lgth		Per Foot	12-ft Lgth		Per Foot	12-ft Lgth		Per Foot	12-ft Lgth
1/8 x											
1/2	0.074	0.888	3/4	.331	3.97	2	.177	21.2	6½	11.5	138
5/8	0.092	1.10	1	.442	5.30	2 ¼	2.02	24.2	8	14.1	169
3/4	0.110	1.32	1¼	.552	6.62	2½	2.21	26.5	8½	15.0	180
1	0.147	1.77	1½	.662	7.95	2¾	2.43	29.2	10	17.6	212
1¼	0.184	2.21	1¾	.771	9.25	3	2.65	31.8	12	21.2	254
1½	0.221	2.65	2	.883	10.6	3½	3.09	37.2	14	24.7	297
1¾	0.258	3.10	2½	1.10	13.2	4	3.53	42.4	1¼ x		
2	0.295	3.53	3	1.32	15.9	5	4.41	52.9	2	4.12	49.4
2½	0.368	4.42	3½	1.54	18.5	6	5.30	63.6	3¼	7.73	92.6
3/16 x			4	1.77	21.2	8	7.07	84.8	4½	9.28	111
1/2	0.110	1.32	4½	1.99	23.9	10	8.83	106	5½	11.3	136
3/4	0.166	1.99	5	2.20	26.4	12	10.6	128	2 x		
1	0.221	2.65	6	2.65	31.8	14	12.4	149	2½	5.89	70.7
1¼	0.276	3.31	7	3.10	37.2	7/8 x			3	7.07	84.8
1½	0.331	3.97	8	3.53	42.4	1	1.03	12.4	3½	8.24	98.9
1¾	0.387	4.64	10	4.42	53.0	1½	1.55	18.6	4	9.43	113
2	0.442	5.30	12	5.30	63.6	2	2.06	24.7	5	11.8	142
2½	0.552	6.62	14	6.18	74.2	1 x			6	14.1	169
3	0.663	7.95	1/2 x			1¼	1.47	17.7	6½	15.3	184
3½	0.773	9.28	3/4	.442	5.30	1½	1.77	21.2	8	18.9	226
4	0.883	10.6	1	.589	7.07	1¾	2.06	24.7	8½	20.0	240
1/4 x			1¼	.736	8.83	2	2.35	28.2	10	23.6	283
1/2	0.147	1.77	1½	.883	10.6	2¼	2.65	31.8	12	28.3	339
3/4	0.221	2.65	1¾	1.03	12.4	2½	2.95	35.3	14	33.0	396
1	0.295	3.53	2	1.18	14.1	2¾	3.24	38.9	2½ x		
1¼	0.368	4.42	2¼	1.33	16.0	3	3.53	42.4	3	8.83	106
1½	0.442	5.30	2½	1.47	17.7	3½	4.12	49.4	3½	10.3	124
1¾	0.516	6.18	2¾	1.62	19.4	4	4.71	56.5	4	11.8	141
2	0.589	7.07	3	1.77	21.2	5	5.87	70.5	5	14.7	177
2¼	0.662	7.94	3½	2.06	24.7	6	7.07	84.8	3 x		
2½	0.736	8.83	4	2.35	28.2	8	9.43	113	4	14.1	169
2¾	0.809	9.70	5	2.95	35.3	10	11.8	141	5	17.6	212
3	0.883	10.6	6	3.53	42.4	12	14.1	169	6	21.2	254
3¼	0.957	11.7	8	4.71	56.5	14	16.5	198	4 x		
3½	1.03	12.3	10	5.89	70.7	1¼ x			5	23.6	283
4	1.18	14.1	12	7.07	84.8	1½	2.21	26.5			
4½	1.32	15.9	14	8.25	99.0	2	2.95	35.3			
5	1.47	17.6	5/8 x			2½	3.68	44.2			
6	1.76	21.1	1	.736	8.83	3	4.42	53.0			
8	2.35	28.2	1¼	.921	11.0	4	5.89	70.7			
10	2.94	35.3	1½	1.10	13.2	6	8.83	106			
12	3.53	42.4	1¾	1.29	15.5	8	11.8	141			
14	4.12	49.4	2	1.47	17.7	10	14.7	176			
5/16 x			2½	1.84	22.1	12	17.7	212			
1/2	.184	2.21	3	2.20	26.4	14	20.6	247			
3/4	.276	3.31	4	3.00	36.0	1½ x					
1	.368	4.42	5	3.75	45.0	2	3.53	42.4			
1¼	.460	5.52	6	4.41	52.9	2½	4.42	53.0			
1½	.552	6.62	3/4 x			3	5.30	63.6			
2	.736	8.83	1	.883	10.6	3½	6.18	74.2			
3	1.10	13.2	1¼	1.10	13.2	4	7.07	84.8			
3/8 x			1½	1.32	15.9	5	8.83	106			
1/2	.221	2.65	1¾	1.57	18.9	6	10.6	128			

6061 ALUMINUM (Continued)

6061-T6 CHANNELS Lengths 25' Approx.			6061-T6 I BEAMS Lengths 25' Approx.		
Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs	
	Per Foot	25-ft Lgth		Per Foot	25-ft Lgth
3 x			3 x		
0.170	1.42	35.5	.170	1.96	49.0
0.258	1.73	43.3	.349	2.59	64.8
0.356	2.08	52.0	4 x		
4 x			.190	2.64	66.0
0.180	1.85	46.3	.326	3.28	82.0
0.247	2.16	54.0	5 x		
0.320	2.50	62.5	.210	3.43	85.8
5 x			.494	5.10	128
0.190	2.31	57.8	6 x		
0.325	3.11	77.8	.230	4.30	108
0.472	3.97	99.3	.343	5.10	128
6 x			8 x		
0.200	2.83	70.8	.350	6.18	155
0.225	3.00	75.0	6061-T6 WIDE FLANGE 6061-T6 H BEAMS Lengths 25' Approx.		
0.314	3.63	90.8			
0.437	4.50	113			
7 x					
0.230	3.54	88.5	Size In Inches	Est. Wt. Lbs	
0.314	4.23	106		Per Foot	25-ft Lgth
8 x			WIDE FLANGE		
0.190	4.15	104	6 x 4 x		
0.250	4.25	106	.230	4.16	104
0.303	4.75	119	6 x 6 x		
0.487	6.48	162	.240	5.40	135
10 x			8 x 5½ x		
0.240	5.28	132	.230	5.90	148
0.526	8.64	216	8 x 6½ x		
12 x			.245	8.32	208
0.300	7.41	185	8 x 8 x		
0.387	8.64	216	.288	10.7	268
6061-T6 TEES Lengths 25' Approx.			H BEAMS		
Size In Inches	Est. Wt. Lbs		4 x		
	Per Foot	25-ft Lgth	.313	4.76	119
2 x 2 x 1/4	1.26	31.5	5 x		
3 x 3 x 3/8	2.72	68.0	.313	6.49	162
			6 x		
			.250	7.85	196
			8 x		
			.313	11.2	280

TYPICAL MECHANICAL PROPERTIES

	Tensile Strength (psi)	Yield Strength (psi)	Elongation in 2"	Brinell Hardness
6063-O	13,000	7,000	—	25
6063-T1	22,000	13,000	20	42
6063-T5	27,000	21,000	12	60
6063-T52	27,000	21,000	12	60
6063-T6	35,000	31,000	12	73

Machinability — For automatic screw machine operations, 6063 is rated between 75% and 85% of 2011 in the T5 and T6 conditions. It is 60% of 2011 in the O condition, and 50% in the T42 condition.

6063-T52 RECTANGLES

Stock Lengths 16' Approx.

Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs		Size In Inches	Est. Wt. Lbs	
	Per Foot	16-ft Lgth		Per Foot	16-ft Lgth		Per Foot	16-ft Lgth
1/8x1/2	.073	1.17	1/4x1/2	.145	2.33	2	.874	14.0
5/8	.091	1.45	5/8	.182	2.92	3	1.31	21.0
3/4	.109	1.75	3/4	.219	3.50	1/2x3/4	.437	6.99
1	.145	2.33	1	.292	4.66	1	.583	9.33
1¼	.182	2.92	1¼	.364	5.82	1¼	.729	11.7
1½	.219	3.50	1½	.437	6.99	1½	.874	14.0
1¾	.255	4.08	1¾	.510	8.16	2	1.17	18.6
2	.292	4.66	2	.583	9.33	2½	1.45	23.3
2½	.364	5.82	2½	.729	11.7	3	1.75	27.9
3/16x1/2	.109	1.75	3	.874	14.0	3/4x1½	1.31	21.0
3/4	.164	2.62	3/8x1/2	.219	3.50	2	1.75	27.9
1	.219	3.50	5/8	.274	4.37	3	2.62	42.0
1¼	.274	4.37	3/4	.328	5.24	1x1½	1.75	27.9
1½	.328	5.24	1	.437	6.99	2	2.33	37.3
2	.437	6.99	1¼	.546	8.74			
2½	.546	8.74	3/8x1½	.656	10.5			

6063 ALUMINUM (Continued)

6063-T52 ANGLES

Lengths 16' Approx.

Size In Inches	Estimated Wt., Lbs.		Size In Inches	Estimated Wt., Lbs.	
	Per Foot	16-ft Lgth		Per Foot	16-ft Lgth
1/2x1/2x1/16	.070	1.12	3/16	.632	10.1
1/8	.131	2.10	1¾x1¾x1/8	.506	8.10
5/8x5/8x1/8	.168	2.69	2x1x1/8	.431	6.90
3/4x3/8x3/32	.116	1.86	2x1½x1/8	.506	8.10
3/4x3/4x1/16	.107	1.71	2x2x1/8	.581	9.30
1/8	.206	3.30	3/16	.860	13.8
1x1/2x3/32	.158	2.53	1/4	1.13	18.1
1/8	.206	3.30	2½x1½x1/8	.506	8.10
1x3/4x1/8	.244	3.90	2½x2x1/8	.656	10.5
1x1x1/16	.145	2.32	2½x2½x1/8	.731	11.7
1/8	.281	4.50	3x2x1/8	.731	11.7
3/16	.409	6.54	3x3x1/8	.881	14.1
1¼ x1/2x1/8	.244	3.90	3/16	1.31	20.9
1¼ x1x1/8	.319	5.10	3½x1¼x1/8	.694	11.1
1¼ x1¼x1/8	.356	5.70	3½x3½x1/8	1.03	16.5
3/16	.522	8.35	4x2x1/8	.881	14.1
1½ x3/4x1/8	.319	5.10	4x3x1/8	1.03	16.5
1½ x1x1/8	.356	5.70	4x4x1/8	1.18	18.9
1½x1½x1/8	.431	6.90			

6063-T52 CHANNELS

Lengths 16' Approx. (Some 20')

Size In Inches	Estimated Wt., Lbs.		Size In Inches	Estimated Wt., Lbs.	
	Per Foot	16-ft Lgth		Per Foot	16-ft Lgth
1/2x3/8x1/8	.150	2.40	1¾x1/2x1/8	.376	6.02
1/2x1/2x3/32	.148	2.37	1¾x3/4x1/8	.450	7.20
1/2x3/4x1/8	.263	4.21	1¾x1x1/8	.526	8.42
5/8x5/8x1/8	.243	3.89	2x1/2x1/8	.413	6.61
3/4x3/8x1/8	.186	2.98	2x1x1/8	.563	9.01
3/4x3/4x1/8	.299	4.78	2x2x1/4	1.67	26.7
1x1/2x1/8	.262	4.19	2¼x7/8x1/8	.562	8.99
1x1x1/8	.413	6.61	2½x1½x1/8	.787	12.6
1¼x1/2x1/8	.299	4.78	3x1/2x1/8	.563	9.01
1¼x1¼x1/8	.526	8.42	3x1x1/8	.713	11.4
1½x1/2x1/8	.336	5.38	5x2x3/16	1.95	31.2

6063-T52 SQUARES

Lengths 16' Approx.

Size In Inches	Estimated Wt., Lbs.		Size In Inches	Estimated Wt., Lbs.	
	Per Foot	16-ft Lgth		Per Foot	16-ft Lgth
3/8	.164	2.62	1	1.17	18.6
1/2	.292	4.66	1/4	1.82	29.2
5/8	.455	7.29	1/2	2.62	42.0
3/4	.656	10.5			

ALUMINUM TREAD PLATE



Pattern C-102 — Length of digmond: 1³/₁₆" max. Width of diamond at center 1¹/₃₂" max.

6061-T6

Conforms to ASTM B 632 Pattern B

Size In Inches	Lbs per Sq. Ft	Est. Lbs per Plate
1/8 x 48 x 192	1.9	121.6
60 x 192	1.9	152.0
3/16 x 48 x 192	2.8	179.2
60 x 192	2.8	224.0
1/4 x 48 x 192	3.7	236.8
60 x 192	3.7	296.0
3/8 x 48 x 192	5.4	345.6
60 x 192	5.4	432.0

BRIGHT TREAD PLATE 3003-H22

Size In Inches	Lbs per Sq. Ft	Est. Lbs per Plate
.072 x 60 x 192	1.2	96.00
.100 x 48 x 120	1.6	64.00
.125 x 48 x 192	1.9	121.6
60 x 192	1.9	152.0
3/16 x 48 x 192	2.8	179.2
60 x 192	2.8	224.0