

# Admiral 5160 Alloy

## Hot Rolled As Rolled Round Edge Bars

SAE/AISI 5160 UNS# G51600

This is a fine grain chromium alloy. It is produced with a hot rolled round edge ideal for flat spring applications. Chromium aids wear and shock resistance and promotes better heat treat penetration.

**STANDARD SPECIFICATIONS:** ASTM A689 & A304. See page 64 for foreign specifications.

**TYPICAL ANALYSIS:** C .56/.64 Mn .75/1.00 P .035 max. S .040 max Si.15/.30  
Cr .70/.90

**TYPICAL HARDNESS:** Rockwell C 25-35 Approx.

**TYPICAL APPLICATIONS:** Leaf springs, wear strips, guide bars, hand tools

**AVAILABLE FORMS:** Round edge bars. Can be cut to length.

See our reference section for information regarding edge conditions, finish descriptions, gauge tolerances, heat treating information, hardness conversion tables and physical properties.

<b>STOCK SIZES – Contact our office for availability of other sizes!</b>							
Width	Thickness	Fraction	Lbs/Ft.	Width	Thickness	Fraction	Lbs/Ft.
1	.250*	1/4	.84	1-3/4	.237	15/64	1.39
	.250	1/4	.84		.262	17/64	1.54
	.312*	5/16	1.04		.291	19/64	1.71
	.312	5/16	1.04		.323	21/64	1.90
					.360	23/64	2.11
1-1/4	.250*	1/4	1.05	2	.401	13/32	2.35
	.250	1/4	1.05		.437	7/16	2.59
	.312	5/16	1.30		.499	1/2	2.93
	.375	3/8	1.55		.562	9/16	3.27
					.625	5/8	3.66
1-1/2	.204*	13/64	1.03	2	.750	3/4	4.26
	.214	7/32	1.08		.204	13/64	1.37
	.237	15/64	1.20		.214	7/32	1.44
	.262	17/64	1.32		.237	15/64	1.59
	.291	19/64	1.47		.250	1/4	1.72
1-3/4	.312	5/16	1.57	2	.262	17/64	1.76
	.375	3/8	1.89		.291	19/64	1.95
	.499	1/2	2.44		.323	21/64	2.17
	.204	13/64	1.20		.360	23/64	2.42
					.214	7/32	1.26

\* Indicates an annealed size

**STOCK SIZES – Contact our office for availability of other sizes!**

Width	Thickness	Fraction	Lbs/Ft.	Width	Thickness	Fraction	Lbs/Ft.
2	.401	13/32	2.69	3	.204	13/64	2.08
	.447	29/64	3.00		.237	15/64	2.38
	.499	1/2	3.35		.250	1/4	2.51
	.625	5/8	4.19		.262	17/64	2.64
	.788	25/32	5.28		.291	19/64	2.93
	1.00	1	6.45		.323	21/64	3.25
	1.25	1-1/4	8.08		.341	-	3.42
2-1/4	.214	7/32	1.62	.360	23/64	3.62	
	.237	15/64	1.79	.375	3/8	3.77	
	.262	17/64	1.98	.401	13/32	4.05	
	.291	19/64	2.20	.447	29/64	4.50	
	.323	21/64	2.43	.499	1/2	5.02	
	.360	23/64	2.72	.558	9/16	5.61	
	.401	13/32	3.03	.590	19/32	5.93	
	.447	29/64	3.37	.625	5/8	6.28	
	.499	1/2	3.76	.662	-	6.65	
	.558	9/16	4.21	.702	45/64	7.05	
	.590	19/32	4.44	.788	25/32	7.92	
	.625	5/8	4.71	.812	-	8.09	
	.788	25/32	5.94	.887	7/8	8.80	
	2-1/2	.125*	1/8	1.05	.938	15/16	9.28
.204		13/64	1.71	1.000	1	10.05	
.214		7/32	1.80	1.250	1-1/4	12.56	
.237		15/64	1.99	1.375	1-3/8	13.81	
.250		1/4	2.13	3-1/2	.262	17/64	3.08
.262		17/64	2.20		.291	19/64	3.41
.291		19/64	2.44		.323	21/64	3.79
.312		5/16	2.64		.360	23/64	4.22
.323		21/64	2.71		.375	3/8	4.40
.341		-	2.87		.401	13/32	4.70
.360		23/64	3.02		.447	29/64	5.24
.375		3/8	3.14		.499	1/2	5.85
.380		-	3.22		.558	9/16	6.54
.401		13/32	3.36		.625	5/8	7.33
.447	29/64	3.74	.660		-	7.72	
.499	1/2	4.18	.788		25/32	9.24	
.558	9/16	4.68	4		.250	1/4	3.35
.625	5/8	5.23			.323	21/64	4.33
.710	-	5.87		.360	23/64	4.82	
.744	47/64	6.17		.375	3/8	5.03	
.770	49/64	6.44		.401	13/32	5.38	
.788	25/32	6.60		.423	-	5.66	
.840	-	7.08		.447	29/64	5.99	
.941	-	7.93		.499	1/2	6.69	
1.000	1	8.18		.558	9/16	7.48	
1.060	1-1/16	8.59		.625	5/8	8.37	
2-3/4	.250	1/4		2.34	.750	3/4	10.15
					.788	25/32	10.56

\* Indicates an annealed size

**STOCK SIZES – Contact our office for availability of other sizes!**

Width	Thickness	Fraction	Lbs/Ft.	Width	Thickness	Fraction	Lbs/Ft.
4	.887	7/8	11.72	5	1.500	1-1/2	25.11
	1.000	1	13.40				
	1.127	1-1/8	14.89	5-1/2	.500	1/2	9.21
	1.210	-	15.89				
4-1/2	.500	1/2	7.54	6	.375	3/8	7.54
					.401	13/32	8.06
.437	7/16	8.78					
.499	1/2	10.03					
.558	9/16	11.21					
5	.625	5/8	12.56	.625	5/8	12.56	
	.702	-	11.75	.750	3/4	15.07	
	.750	3/4	12.56	1.000	1	20.09	
	.788	25/32	13.20	1.250	1-1/4	25.11	
	.887	7/8	14.86	1.375	1-3/8	27.63	
	1.000	1	16.74	1.500	1-1/2	30.13	
	1.125	1-1/8	18.84	8	.500	1/2	14.27
	1.250	1-1/4	20.93				

**STOCK METRIC SIZES – Contact our office for availability of other sizes!**

Width	Thickness	Decimal	Lbs/Ft.	Width	Thickness	Decimal	Lbs/Ft.	
60 mm	6 mm	2.362 X .236	1.87	80 mm	8 mm	3.150 X .315	3.33	
	7 mm	2.362 X .276	2.19		10 mm	3.150 X .394	4.16	
	8 mm	2.362 X .315	2.49		11 mm	3.150 X .433	4.57	
	9 mm	2.362 X .354	2.83		12 mm	3.150 X .472	4.98	
	10 mm	2.362 X .394	3.32		13 mm	3.150 X .512	5.40	
	11 mm	2.362 X .433	3.43		14 mm	3.150 X .552	5.83	
	12 mm	2.362 X .472	3.73		15 mm	3.150 X .591	6.24	
	13 mm	2.362 X .512	4.05		16 mm	3.150 X .630	6.65	
	14 mm	2.362 X .551	4.37		22 mm	3.150 X .866	9.05	
	16 mm	2.362 X .630	5.00		90 mm	24 mm	3.543 X .945	11.20
	70 mm	6 mm	2.756 X .236					
7 mm		2.756 X .276	2.55	11 mm	3.938 X .433	5.71		
8 mm		2.756 X .315	2.91	12 mm	3.938 X .472	6.23		
9 mm		2.756 X .354	3.27	13 mm	3.938 X .512	6.76		
10 mm		2.756 X .394	3.64	14 mm	3.938 X .552	7.28		
11 mm		2.756 X .433	4.00	20 mm	3.938 X .787	10.27		
12 mm		2.756 X .472	4.36	21 mm	3.938 X .826	10.85		
13 mm		2.756 X .512	4.73	22 mm	3.938 X .866	11.42		
14 mm		2.756 X .552	5.10	120 mm	14 mm	4.724 X .551	8.78	
16 mm		2.756 X .630	5.81		16 mm	4.724 X .630	9.96	
18 mm		2.756 X .709	6.55		18 mm	4.724 X .709	11.23	
19 mm	2.756 X .748	6.91	20 mm		4.724 X .787	12.40		
75 mm	9 mm	2.953 X .354	3.50					