

Aluminium - 6082 T6

Flat Bar

Properties

Stock		Chemical Properties	
Size (in)	Weight/m (Kg)	Element	Chemical composition %
3/8 x 1/4	0.17	Manganese (Mn)	0.40 - 1.00
1/2 x 1/8	0.11	Iron (Fe)	0.0 - 0.50
1/2 x 3/16	0.12	Magnesium (Mg)	0.60 - 1.20
1/2 x 1/4	0.22	Silicon (Si)	0.70 - 1.30
1/2 x 3/8	0.33	Copper (Cu)	0.0 - 0.10
5/8 x 1/8	0.14	Zinc (Zn)	0.0 - 0.20
5/8 x 3/16	0.21	Titanium (Ti)	0.0 - 0.10
5/8 x 1/4	0.27	Chromium (Cr)	0.0 - 0.25
5/8 x 3/8	0.55	Aluminium (Al)	Balance
5/8 x 1/2	0.41		
3/4 x 1/8	0.16		
3/4 x 1/4	0.33		
3/4 x 3/8	0.50		
3/4 x 1/2	0.66		
3/4 x 5/8	0.82		
7/8 x 1/8	0.19		
1 x 1/16	0.11		
1 x 1/8	0.22		
1 x 3/16	0.33		
1 x 1/4	0.44		
1 x 5/16	0.54		
1 x 3/8	0.66		
1 x 1/2	0.88		
1 x 5/8	1.09		
1 x 3/4	1.32		
1 1/4 x 1/8	0.27		
1 1/4 x 3/16	0.41		
1 1/4 x 1/4	0.55		
1 1/4 x 3/8	0.82		
1 1/4 x 1/2	1.10		
1 1/4 x 5/8	1.37		
1 1/4 x 3/4	1.65		
1 1/4 x 1	2.20		
1 1/2 x 1/8	0.33		
1 1/2 x 3/16	0.50		
1 1/2 x 1/4	0.66		
1 1/2 x 3/8	0.98		
1 1/2 x 1/2	1.31		
1 1/2 x 5/8	1.64		
1 1/2 x 3/4	1.97		
1 1/2 x 1	2.62		
1 1/2 x 1 1/2	3.28		

Mechanical Properties	
Property	Value
Proof Stress	170 MPa
Tensile Strength	260 MPa
Elongation	19%
Shear Strength	170 MPa
Hardness Vickers	75 HV

Physical Properties	
Property	Value
Density	2.70 g/cm ³
Melting Point	555°C
Thermal Expansion	24 x 10 ⁻⁶ /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	180 W/m.K
Electrical Resistivity	0.038 x 10 ⁻⁶ Ω.m

1 3/4 x 1/4	0.77
1 3/4 x 3/8	1.15
1 3/4 x 1/2	1.53
1 3/4 x 3/4	2.29
1 3/4 x 1	3.06
1 3/4 x 1 1/4	3.82
2 x 1/8	0.44
2 x 3/16	0.66
2 x 1/4	0.87
2 x 3/8	1.31
2 x 1/2	1.75
2 x 5/8	2.19
2 x 3/4	2.62
2 x 1	3.50
2 x 1 1/4	4.37
2 x 1 1/2	5.25
2 1/2 x 3/16	0.82
2 1/2 x 1/4	1.09
2 1/2 x 3/8	1.64
2 1/2 x 1/2	2.19
2 1/2 x 3/4	3.28
2 1/2 x 1	4.37
2 1/2 x 1 1/2	6.56
2 1/2 x 2	8.74
3 x 1/8	0.66
3 x 3/16	0.98
3 x 1/4	1.31
3 x 3/8	1.97
3 x 1/2	2.62
3 x 5/8	3.28
3 x 1	5.25
3 x 2	10.50
3 1/2 x 1/4	1.52
3 1/2 x 1/2	3.04
4 x 1/8	0.87
4 x 3/16	1.30
4 x 1/4	1.75
4 x 3/8	2.62
4 x 1/2	3.50
4 x 5/8	4.37
4 x 3/4	5.25
4 x 1	6.99
4 x 1 1/4	8.74
4 x 2	14.00
5 x 1/4	2.19
5 x 1/2	4.37
6 x 1/4	2.62
6 x 3/8	3.93
6 x 1/2	5.25
6 x 1	10.50

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