

Aluminium - 6082 T6

Round Bar

Properties

Stock		Chemical Properties	
Diameter (in)	Weight/m (Kg)	Element	Chemical composition %
1/8	0.02	Manganese (Mn)	0.40 - 1.00
3/16	0.51	Iron (Fe)	0.0 - 0.50
1/4	0.09	Magnesium (Mg)	0.60 - 1.20
5/16	0.13	Silicon (Si)	0.70 - 1.30
3/8	0.19	Copper (Cu)	0.0 - 0.10
7/16	0.26	Zinc (Zn)	0.0 - 0.20
1/2	0.34	Titanium (Ti)	0.0 - 0.10
9/16	0.43	Chromium (Cr)	0.0 - 0.25
5/8	0.54	Aluminium (Al)	Balance
16mm	0.55	Mechanical Properties	
11/16	0.65	Property	Value
3/4	0.77	Proof Stress	170 MPa
20mm	0.85	Tensile Strength	260 MPa
13/16	0.91	Elongation	19%
7/8	1.05	Shear Strength	170 MPa
15/16	1.21	Hardness Vickers	75 HV
25mm	1.33	Physical Properties	
1	1.50	Property	Value
1 1/8	1.74	Density	2.70 g/cm ³
1 3/16	1.93	Melting Point	555°C
1 1/4	2.14	Thermal Expansion	24 x 10 ⁻⁶ /K
1 5/16	2.38	Modulus of Elasticity	70 GPa
1 3/8	2.60	Thermal Conductivity	180 W/m.K
35mm	2.61	Electrical Resistivity	0.038 x 10 ⁻⁶ Ω.m
1 1/2	3.10		
40mm	3.42		
1 5/8	3.63		
1 3/4	4.21		
1 7/8	4.84		
2	5.49		
2 1/8	6.20		
2 1/4	6.95		
2 3/8	7.75		
2 1/2	8.59		
2 5/8	9.46		
2 3/4	10.40		
3	12.40		
3 1/4	14.50		
3 1/2	16.80		
3 3/4	19.20		
4	22.20		
4 1/4	24.90		

4 1/2	27.80
4 3/4	31.00
5	34.40
5 1/4	37.80
5 1/2	41.50
5 3/4	45.43
6	49.40
6 1/4	53.70
6 1/2	58.00
6 3/4	62.30
7	67.30
7 1/4	72.20
7 1/2	77.20
8	92.30
8 1/2	99.30
9	111.30
9 1/2	124.70
10	137.40
11	166.20
12	198.00
13	238.70
14	269.34
15	309.00
16	352.00

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