

Aluminium - 6082 T6

Channel

Properties

Stock		Chemical Properties	
Size (in)	Weight/m (Kg)	Element	Chemical composition %
3/8 x 3/8 x 1/8	0.11	Manganese (Mn)	0.40 - 1.00
1/2 x 1/2 x 1/16	0.15	Iron (Fe)	0.0 - 0.50
1/2 x 1/2 x 1/8	0.27	Magnesium (Mg)	0.60 - 1.20
5/8 x 5/8 x 1/16	0.19	Silicon (Si)	0.70 - 1.30
5/8 x 5/8 x 1/8	0.36	Copper (Cu)	0.0 - 0.10
3/4 x 3/4 x 1/16	0.24	Zinc (Zn)	0.0 - 0.20
3/4 x 3/4 x 1/8	0.49	Titanium (Ti)	0.0 - 0.10
7/8 x 7/8 x 1/8	0.52	Chromium (Cr)	0.0 - 0.25
1 x 1/2 x 1/8	0.38	Aluminium (Al)	Balance
1 x 3/4 x 1/8	0.49		
1 x 1 x 1/16	0.31		
1 x 1 x 1/8	0.60		
1 1/4 x 3/4 x 1/8	0.55		
1 1/4 x 1 x 1/8	0.66		
1 1/4 x 1 1/4 x 1/8	0.76		
1 1/2 x 3/4 x 1/8	0.60		
1 1/2 x 1 x 1/8	0.71		
1 1/2 x 1 1/2 x 1/8	0.93		
1 1/2 x 1 1/2 x 1/4	1.74		
1 1/2 x 1 1/2 x 3/16 x 3/16	1.35		
1 3/4 x 1 x 1/8	0.76		
2 x 1/2 x 1/8	0.60		
2 x 1 x 1/8	0.82		
2 x 1 x 3/16	1.22		
2 x 1 x 1/4	1.52		
2 x 1 1/2 x 1/8	1.03		
2 x 1 1/2 x 1/4	1.97		
2 x 2 x 1/8	1.26		
2 x 2 x 3/16	1.83		
2 x 2 x 1/4	2.40		
2 1/4 x 1 1/4 x 3/16	1.43		
2 1/2 x 1 x 1/8	0.93		
2 1/2 x 1 1/4 x 3/16	1.52		
3 x 1 x 1/8	1.04		
3 x 1 1/2 x 1/8	1.26		
3 x 1 1/2 x 3/16	1.84		
3 x 1 1/2 x 1/4	2.42		
3 x 1 1/2 x 1/4 x 5/16	2.66		
3 x 2 x 1/8	1.48		
3 x 2 x 3/16	2.17		
3 x 2 x 1/4	2.84		
3 1/2 x 1 1/2 x 1/4 x 5/16	2.90		

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

4 x 2 x 1/8	1.69
4 x 2 x 1/4	3.29
4 x 2 x 1/4 x 5/16	3.66
5 x 2 x 1/4 x 5/16	4.08
5 x 2 1/2 x 1/4 x 3/8	5.36
6 x 2 x 1/4 x 5/16	4.53
6 x 3 x 1/4 x 3/8	6.21
6 x 3 x 3/8 x 1/2	8.49
8 x 3 x 3/8 x 1/2	9.80

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