Aluminum 6082-T6

Categories: Metal; Nonferrous Metal; Aluminum Alloy; 6000 Series Aluminum Alloy

Material Notes:	Material specs taken from SAPA / Indalex manual on extrusions.
	Data points with the AA note have been provided by the Aluminum Association, Inc. and are NOT FOR DESIGN.
	Composition Notes: Composition information provided by the Aluminum Association and is not for design.

Key Words: EU Numerical EN-AW-6082; EU Chemical AlSi1MgMn; AA6082; Sweden: SS-EN-AW-6082; Aluminium 6082-T6

Vendors: No vendors are listed for this material. Please click here if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	2.70 g/cc	0.0975 lb/in³	AA; Typical

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	95	95	
Tensile Strength, Ultimate	290 MPa	42100 psi	wall thickness < 5 mm
	310 MPa	45000 psi	wall thickness > 5 mm
Tensile Strength, Yield	250 MPa	36300 psi	wall thickness < 5 mm
	260 MPa	37700 psi	wall thickness > 5 mm
Elongation at Break	10 %	10 %	

Thermal Properties	Metric	English	Comments
Thermal Conductivity	170 W/m-K	1180 BTU-in/hr-ft²-°F	

Component Elements Properties	Metric	English	Comments
Aluminum, Al	95.2 - 98.3 %	95.2 - 98.3 %	As remainder
Chromium, Cr	<= 0.25 %	<= 0.25 %	
Copper, Cu	<= 0.10 %	<= 0.10 %	
Iron, Fe	<= 0.50 %	<= 0.50 %	
Magnesium, Mg	0.60 - 1.2 %	0.60 - 1.2 %	
Manganese, Mn	0.40 - 1.0 %	0.40 - 1.0 %	
Other, each	<= 0.050 %	<= 0.050 %	
Other, total	<= 0.15 %	<= 0.15 %	
Silicon, Si	0.70 - 1.3 %	0.70 - 1.3 %	
Titanium, Ti	<= 0.10 %	<= 0.10 %	
Zinc, Zn	<= 0.20 %	<= 0.20 %	

References for this datasheet.