Aluminum 6082-T6

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

Close Analogs:

Composition Notes:

Aluminum content reported is calculated as remainder.

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

Component	Wt. %		Component	Wt. %		Component	Wt. %		
Al	95.2 - 98.3		Mg	0.6 - 1.2		Si	0.7 - 1.3		
Cr	Max 0.25		Mn	0.4 - 1		Ti	Max 0.1		
Cu	Max 0.1		Other, each	Max 0.05		Zn	Max 0.2		
Fe	Max 0.5		Other, total	Max 0.15					

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.

Physical Properties	Metric	English	Comments
Density	2.7 g/cc	0.0975 lb/in³	AA; Typical
Mechanical Properties			
Hardness, Vickers	95	95	
Tensile Strength, Ultimate	290 MPa	42100 psi	wall thickness < 5 mm
Tensile Strength, Ultimate	310 MPa	45000 psi	wall thickness > 5 mm
Tensile Strength, Yield	250 MPa	36300 psi	wall thickness < 5 mm
Tensile Strength, Yield	260 MPa	37700 psi	wall thickness > 5 mm
Elongation at Break	10 %	10 %	
Thermal Properties			
Thermal Conductivity	170 W/m-K	1180 BTU-in/hr-ft²-°F	

References are available for this material.