

6061 Aluminium

Technical Datasheet



Service. Quality. Value.

Commercial Aluminium Alloy

Applications

- Shipbuilding
- Motorboats
- Aircraft structures
- Truck bodies
- Pylons & towers
- Rail coaches

Product Description

6061 aluminium is an American alloy and one of most versatile of the heat-treatable alloys. The alloy is typically used in heavy duty structures. It is a medium to high strength heat-treatable material with very good corrosion resistance and medium fatigue strength. 6061 in the annealed condition offers excellent weldability and formability and is readily disposed to furnace brazing.

Key features:

- Medium to high strength heat-treatable alloy
- Medium fatigue strength
- Very good corrosion resistance
- Typically used in heavy duty structures

Corrosion Resistance

Very good

Availability

Sheet, plate and extrusions

Chemical Composition (weight %)

	Mn	Fe	Mg	Si	Cu	Zn	Ti	Cr	Al			
min.			0.80	0.40	0.15			0.04	Bal			
max.	0.15	0.70	1.20	0.80	0.40	0.25	0.15	0.35	Bal			

Mechanical Properties

Tensile Strength	310 MPa
Proof Stress	270 MPa
Shear Strength	190 MPa
Elongation A50 mm	12%
Brinell Vickers	100 HV

Physical Properties

Density	2.70 g/cm ³
Melting Point	650 °C
Thermal Expansion	23.4 x10 ⁻⁶ /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	166 W/m.K

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

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