7050 Aluminium

Technical Datasheet

Commercial Aluminium Alloy Service. Quality. Value.

Applications

- Fuselage frames
- Bulkheads
- Wing skins
- Aerospace structures
- Commercial & military aircraft applications

Key features:

- Strong mechanical strength
- Good stress corrosion cracking resistance and toughness
- Particularly suited to heavy plate applications
- Available in two tempers, T7651 & T7451

Product Description

7050 aluminium is a heat-treatable alloy which is known as a commercial aerospace alloy. The alloy offers a combination of high strength, high fatigue strength and high resistance to stress corrosion cracking. Particularly suited to heavy plate applications, the material is used to build fuselage frames, wing skins and other aerospace structures. 7050 alloy is available in two tempers.

Related Material Specifications

- AMS 4108
- ASTM B247
- QQ A-430
- AMS 4201
- ASTM B316

Corrosion Resistance

Excellent resistance to exfoliation corrosion

Availability

Bar, plate, sheets

Chemical Composition (weight %)

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Zr	Ti	Al	Others
min.			2.0		1.9		5.7	0.08		Bal	0.05
max.	0.12	0.15	2.6	0.10	2.6	0.04	6.7	0.115	0.06	Bal	0.15

Mechanical Properties

Tensile Strength	515 MPa
Yield Strength	455 MPa
Fatigue Strength	240 MPa
Elongation A50 mm	11%

Physical Properties

Density	2.70 g/cm³
Melting Point	494 °C
Modulus of Elasticity	70-80 GPa

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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