7050 Aluminium Bar

Smiths Advanced Metals

High Mechanical Properties

7050 high strength heat-treatable aluminium.

7050 aluminium alloy offers very high mechanical properties with excellent fracture toughness and resistance to stress corrosion.

The material also promotes high strength at sub-zero temperatures. The alloy offers good machinability, although workability is poor. Generally, welding should be avoided using traditional methods, although friction welding is possible. 7050 aluminium also benefits from good electrical conductivity.

The product is typically regarded as a commercial aerospace alloy and finds typical use in the production of structural aircraft parts.

We stock 7050 aluminium bars in a broad range of sizes and tempers (including T4511 and T6511 tempers).

Key Applications

- **Aircraft structural parts**
- **Highly stressed components**
- **Bulkheads**
- **Wing skins**
- **Fuselage frames**

Benefits

- **Very high strength and mechanical properties**
- **Good resistance to corrosion**
- **Good fracture toughness & fatigue resistance**

Grades / Specifications

- **AMS4340**
- **AMS4342**

Chemical Composition (weight %)

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Others (ea)	Others (total)	Al
min.			2.00		1.90		5.70		0.08			Rem
max.	0.12	0.15	2.60	0.10	2.60	0.04	6.70	0.06	0.15	0.05	0.15	

Metallurgical Support

Our UKAS Accredited Testing Laboratory is unique to the UK stockholding sector, and we provide comprehensive metallurgical support, including an extensive range of testing services.

Processing

We supply products in both metric and imperial sizes and process your aluminium bars in-house. We stock materials in closer incremental sizes, which results in the supply of engineering materials where the need to machine the raw material down is not required.

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