

# 7010 Aluminium

## Technical Datasheet



Service. Quality. Value.

### Commercial Aluminium Alloy

#### Applications

- High strength aerospace parts
- Closed die forgings for the aerospace industry
- Large forged bars for the aerospace industry

#### Key features:

- Very high strength alloy
- Very high fatigue strength
- Stress corrosion resistant
- Not suitable for high temperature applications
- Corrosion protection recommended

#### Product Description

7010 aluminium alloy offers a balance between mechanical properties (strength, toughness, fatigue) and resistance to stress corrosion. The alloy which is of European origin has properties similar to the American Grade 7050. The alloy benefits from high strength, high fatigue strength and is stress corrosion resistant. 7010 is used in the aerospace industry in the production of high strength parts.

#### Related Material Specifications

- AMS 4203
- AMS 4204
- AMS 4205

#### Corrosion Resistance

Stress corrosion resistant but corrosion protection recommended.

#### Availability

Bar, plate and forgings

#### Chemical Composition (weight %)

	Al	Zn	Mg	Cu	Fe	Zr	Si	Mn	Ti	Cr	Ni	Other
min.	Bal	5.70	2.10	1.50		0.10						0.050
max.	Bal	6.70	2.60	2.0	0.15	0.16	0.12	0.10	0.0360	0.050	0.050	0.15

#### Mechanical Properties

##### T7452 condition. 125/150 mm thickness:

- Tensile test at ambient temperature, longitudinal direction
- UTS: > 475 N/mm<sup>2</sup>
- 0.2 % Yield strength: > 400 N/mm<sup>2</sup>
- Elongation (5d): > 8 %
- K<sub>Ic</sub> (L - T direction): > 27 MPa√m

##### T74 condition. 100/125 mm thickness:

- Tensile test at ambient temperature, longitudinal direction
- UTS: > 485 N/mm<sup>2</sup>
- 0.2 % Yield strength: > 420 N/mm<sup>2</sup>
- Elongation (5d): > 7 %
- K<sub>Ic</sub> (L-T direction): > 27 MPa√m

#### UK Service Centres:

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#### Quality & Testing:



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