

7075 Aluminium Plate

Smiths Advanced Metals

Rev: SAM/datasheets/aluminium/7075-plate/feb-2022

Page: 1 of 1

Reduce Weight, Maintain Strength

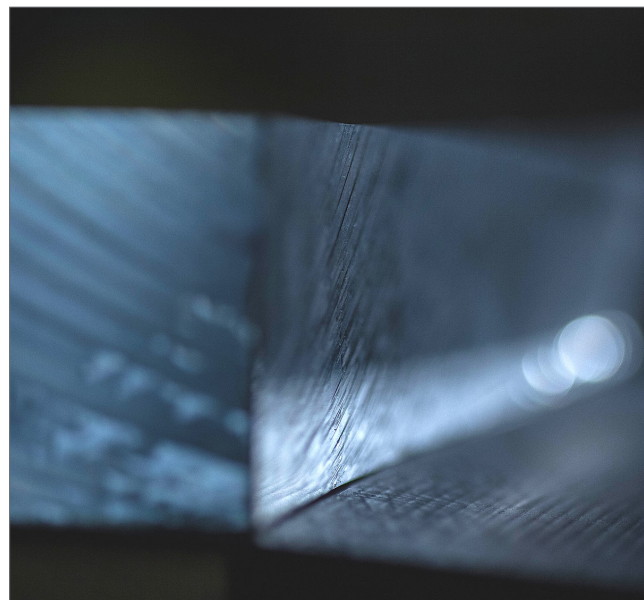
Impressive strength-to-weight ratios

7075 aluminium plate offers superior strength to weight ratios when compared to steel.

The alloy is often called an 'aerospace grade' and is used extensively in aircraft construction.

We offer stock availability of 7075 aluminium plates in an extensive range of sizes and tempers (including T4511 and T6511 tempers). With superior strength and stress corrosion resistance, the alloy is easily formed with reasonable machinability. Traditional welding of 7075 aluminium plate is not advisable, although resistance welding is possible.

We stock [7075 aluminium plates](#) in a broad range of sizes and include T7351, T6 and T651 tempers.



Grades / Specifications

- AMS4045
- AMS4078
- AMSQQA250/12
- ASTM B209
- BS L95, BS L100
- BS EN 573, BS EN 485

Processing Options

We process [7075 aluminium plates](#) in-house. We stock aluminium products in closer incremental sizes resulting in products which may not require further machining since they match your exact requirements.

Key Applications

- Aircraft structural parts
- Military components
- Highly stressed components
- Wings and fuselages

Benefits

- Superior stress corrosion resistance
- Superior strength
- Very good machinability

Chemical Composition (weight %)

| | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Others (ea) | Others (total) | Al |
|------|------|------|------|------|------|------|------|------|-------------|----------------|-----|
| min. | | | 1.20 | | 2.10 | 0.18 | 5.10 | | | | Rem |
| max. | 0.40 | 0.50 | 2.00 | 0.30 | 2.90 | 0.28 | 6.10 | 0.20 | 0.05 | 0.15 | |

Physical Properties

| | |
|--|-----------|
| Temper | T6 |
| Density g/cm ³ | 2.80 |
| Melting Range °C | 475 - 635 |
| Thermal Conductivity (% IACS) | 32.9 |
| Electrical Conductivity (% IACS) | 33 |
| Modulus of Elasticity x10 ³ N/mm ² | 72 |

Corrosion Resistance

The corrosion resistance of 7075 aluminium plate is not as good compared to other aluminium alloys due to the 1.2% copper content, making the alloy more susceptible in caustic environments.

However, the inclusion of copper in the alloying process results in one of the strongest aluminium alloys available.

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