

# 7075 Aluminium Sheet

Smiths Advanced Metals

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## High Strength Aluminium Sheet

For aerospace applications

7075 aluminium sheet is a popular choice for the aerospace sector, with the alloy finding use in applications such as wing skins and fuselages.

The aluminium alloy is heat-treatable and benefits from high strength combined with excellent hardness properties. 7075 is typically supplied in the annealed condition and is easily formed with reasonable machinability. Our product may be spot or flash welded, although general welding is not recommended. The strength to weight ratio of the alloy is superior to steel which allows engineers to reduce overall weight while maintaining strength and performance.

While the corrosion resistance of 7075 is lower than many aluminium alloys, it is significantly better when compared to 2xxx series grades.

We have stock and distribute [7075 aluminium sheets](#) in a wide range of incremental sizes and tempers, including T7351, T6 and T651.



### Grades / Specifications

- AMS4045
- AMS4078
- AMSQA250/12
- ASTM B209
- BS L95, BS L100
- BS EN 573, BS EN 485

### Key Applications

- Wing skins
- Aerostructures
- Fuselages
- Highly stressed components
- Weight reducing applications

### 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	

### Mechanical Properties (min. values, 1.5 - 3mm thick sheet)

Temper	MPa $R_m$	MPa $R_{p0.2}$	Elongation A50 mm	Hardness HBW Typical
O	275 max	145 max	10	55
T6	540	470	7	161
T651	540	470	7	161

Properties as per BS EN 485-2

### Physical Properties

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

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