

# 6061 Aluminium Sheet

Smiths Advanced Metals

Rev: SAM/datasheets/aluminium/6061-sheet/feb-2022

Page: 1 of 1

## Heat-treatable aluminium sheet

Medium to high strength alloy

6061 is a medium to high strength aluminium alloy with magnesium and silicon as the main alloying elements. We stock 6061 aluminium in sheet form in 0, T4, T42, T6 tempers.

6061 aluminium offers various attractive characteristics making the alloy an extremely versatile engineering material for commercial applications. Features include medium fatigue strength and very good corrosion resistance. The alloy also benefits from good weldability, although overall strength is reduced in the welding zone. Cold formability is also good.

6061 aluminium sheet finds typical use in applications where a combination of improved corrosion resistance and strength is a requirement.

We stock and supply [6061 aluminium sheets](#) in a wide range of thicknesses and tempers, including 0, T4, T42, T6. We also offer in-house processing services where we guillotine your aluminium sheets to your size requirements.



### Grades / Specifications

- AMS 4025
- AMS 4027
- AMSQA250/11
- ASTM B209
- BS EN 573, BS EN 485

### Key Applications

- Aerospace parts
- Military components
- Structural applications
- Pylons and towers

### Chemical Composition (weight %)

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others (ea)	Others (total)	Al
min.	0.40		0.15		0.80	0.04					Rem
max.	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	0.05	0.15	

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

Temper	MPa R <sub>m</sub>	MPa R <sub>p0.2</sub>	Elongation A50 mm	Hardness HBW Typical
T4	205	110	14	58
T42	205	95	14	57
T6	290	240	7	88

Properties as per BS EN 485-2

### Physical Properties

Temper	T4	T6
Density g/cm <sup>3</sup>	2.70	2.70
Melting Range °C	580 - 650	580 - 650
Thermal Conductivity (% IACS)	39.6	39.6
Electrical Conductivity (% IACS)	43	40
Modulus of Elasticity x10 <sup>3</sup> N/mm <sup>2</sup>	70	70

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