

2024 Aluminium Sheet

Smiths Advanced Metals

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Aluminium & Clad Sheets

High strength aluminium sheet with improved corrosion resistance once clad.

Often referred to as an 'aircraft alloy', 2024 aluminium sheet can be machined to a high quality finish.

Workability of the alloy is good, but weldability is generally poor. 2024 is typically supplied with an anodised finish although it is also supplied in clad form (Alclad); this is when the original material is clad with a thin layer of purer aluminium for improved fracture toughness.

We stock 2024 aluminium sheets in a wide range of thicknesses and tempers (including O, T3, T351, T4, T42 and T81 tempers).



Grades / Specifications

- 3.1364
- ABS5044, ABS5503A
- AIMS-03-04-014
- AIR9048
- AMS4035, AMS4037, AMSQA250/4, ABM 1-6015
- AMS4461, AMS4462, AMSQA250/5, ABM1-7067
- ASTM B209
- BS L100
- BS L109, BS L110
- CMMP019, CMMP025
- LN9073
- BS EN 573, BS EN 485

Benefits

- Good formability
- Good machinability
- Clad sheets offer excellent corrosion resistance

Key Applications

- Aircraft structures
- Military vehicles
- Structural applications

Chemical Composition (weight %)

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others (ea)	Others (total)	Al
min.			3.80	0.30	1.20						Rem
max.	0.50	0.50	4.90	0.90	1.80	0.10	0.25	0.15	0.05	0.15	

Mechanical Properties (minimum values unless stated)

*Temper	MPa R _m	MPa R _{p0.2}	Elongation A _{50mm}	Hardness HBW Typical
O	220 max	140 max	13	55
T3	440	290	14	124
T4	425	275	14	120
T351	440	290	14	124

*Based on sheet thickness from 3 to 6mm. T4 thickness range from 1.5mm - 6mm.

Properties as per BS EN 485-2

Physical Properties

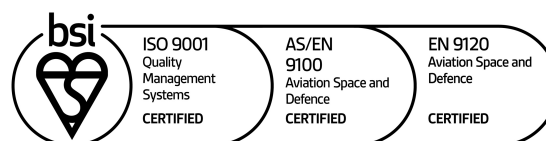
Temper	T3
Density (g/cm ³)	2.77
Melting Range (°C)	500 - 640
Electrical Conductivity (20°C, % IACS)	30
Thermal Conductivity (% IACS)	38.4
Modulus of Elasticity (x10 ³ , N/mm ²)	73

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