7075 Aluminium Sheet

Smiths Advanced Metals

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

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
- AMSQQA250/12
- 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 _{Rm}	MPa R _{p0,2}	Elongation A50 mm	Hardness HBW Typical				
0	275 max	145 max	10	55				
T6	540	470	7	161				
T651	540	470	7	161				

Physical Properties	
Temper	Т6
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

Properties as per BS EN 485-2

www.smithsadvanced.com



Stratton Business Park, London Road, Biggleswade, Bedfordshire SG18 8QB

Tel: +44 (0) 1767 604710



CERTIFIED

CERTIFIED



Page: 1 of 1



All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading.

© Smiths Advanced Metals 2023

h۹

CERTIFIED