

6061 Aluminium Tube

Smiths Advanced Metals



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Medium to High Strength Tube

Higher strength than 6005A

6061 aluminium drawn tube is a medium to high strength tubular product offering good corrosion resistance.

6061 aluminium in the T6 temper is not as hard as mild steel but performs better under impact loading because the alloy has the ability to flex under impact. With a good strength to weight ratio, good machinability, and excellent welding and forming characteristics in the annealed state, 6061 aluminium tubing is a highly versatile engineering material. 6061 also benefits from being one of the most economical heat-treatable aluminium alloy products.

Smiths Advanced Metals stocks 6061 aluminium tubes in a wide range of sizes including T4, T6, T6511 and O tempers.



Grades / Specifications

- 3.3214, LN1793
- ABS5151, AIMS03-24-004
- AIR 9048
- AMS4079, AMS4080, AMS4150
- AMS4081, AMS4082, AMS4083
- AMSQQA200/8
- AMSWWT700/6
- BAMS517-001
- BS L117
- BS EN 573, BS EN 755, BS EN 754

Benefits

- Good corrosion resistance
- Good workability
- Medium to high strength
- Easily welded and formed
- Stronger than 6005A

Applications

- High technology applications
- Defence components
- Aircraft parts

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, ≤ 20 mm wall thickness)

Temper	MPa R_m	MPa $R_{p0.2}$	Elongation A (%)	Hardness HBW Typical
T4	205	110	16	65
T6	290	240	10	95

Note: Properties may be achieved by press quenching.

Properties as per BS EN 754-2

Physical Properties

Temper	T4	T6
Density g/cm ³	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 ³ N/mm ²	70	70

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