

7075 Aluminium Bar

Smiths Advanced Metals

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Excellent Hardness Properties

7075 finds use in Aerospace applications.

7075 aluminium alloy is commonly used in aerospace applications due to the alloys high tensile and yield strength combined with excellent fracture toughness.

The alloy can be flash or spot welded in the annealed condition and is easily formed with reasonable machinability. The material is ideal for applications where high strength is critical, but there is less emphasis on corrosion resistance. 7075 aluminium is well suited to the production of highly stressed parts and structural components. The alloy offers good fatigue strength and average machinability. 7075 is also popular in motorsport for gears and shafts.

We offer stock availability of **7075 aluminium bars** in an extensive range of sizes and tempers (including T73, T7351, T73511, T6, T651 or T6511 tempers).



Grades / Specifications

- 3.4364
- AMS4123, AMS4124, AMS QQA225/9,
- AMS4154, AMS4169, AMS QQA200/11
- ASTM B211
- ASTM B221
- BS L100
- BS L160
- DTD 5124
- BS EN 573, BS EN 755, BS EN 754

Key Applications

- Aircraft structural parts
- Military components
- Highly stressed components
- Gears and shafts in motorsport

Benefits

- Superior stress corrosion resistance
- Superior strength
- Very good machinability

We process 7075 aluminium bars in-house.

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 (minimum values, T6511 temper)

Diameter	MPa R _m	MPa R _{p0.2}	Elongation A (%)	Hardness HBW Typical
≤25	540	480	7	150
25 < ≤100	560	500	7	150
100 < ≤150	550	440	5	150
150 < ≤200	440	400	5	150

Properties as per BS EN 755-2

Physical Properties

Temper	T6
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

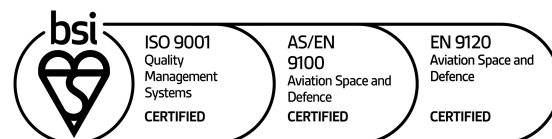
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