2014A Aluminium Bar

Smiths Advanced Metals

Extruded & Drawn Aluminium Bars

2014A is a grade with high strength containing 3.9 to 5 % copper.

This alloy offers attractive mechanical properties with good machinability. Finished components should have an additional protective coating to avoid corrosion.

2014A aluminium bars can be easily plated and can be hard anodised. This alloy can offer good strength with a further heat-treatment process. It is available to the BS L168 aerospace standard in a variety of sizes. Bars are produced in an extruded or drawn form. We have available, 2014A aluminium bars in a wide range of sizes and tempers (including T4, T4511, T6 or T6511 tempers).

Grades / Specifications

- **BS EN 573, BS EN 755, BS EN 754**
- **BS L102**
- **BS L168**

Cut to bespoke shape service:

We offer a complete bar/rod cutting service using a range of equipment. Bars are cut to tight tolerances to match our clients' needs, and in many cases, this added value service eliminates the need for any additional cutting.

Technical sales support:

To find out more about the 2014A aluminium bar and for other technical advice, contact Smiths Advanced Metals today. Our team of qualified metallurgists and engineers will be pleased to assist further on any technical topic.

Key Applications

- **Aerospace components**
- **Medical**
- **Defence components**
- **High technology applications**

Benefits

- **Excellent machinability**
- **High mechanical strength**
- **Excellent resistance to fatigue**

Chemical Composition (weight %)

	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Zr+Ti	Each	Other	Al
min.	0.50		3.90	0.40	0.20								Rem
max.	0.90	0.50	5.00	1.20	0.80	0.10	0.10	0.25	0.15	0.20	0.05	0.15	

Mechanical Properties (minimum values unless stated)

Temper	MPa R_m	MPa $R_{p0,2}$	Elongation A (%)	Hardness HBW Typical
T4 / T4511	410	270	12	110
T6 / T6511	460	415	7	140

Properties as per BS EN 755-2, 25-75mm

Physical Properties

Temper	T4	T6
Density (g/cm³)	2.80	2.80
Melting Range (°C)	505-640	505-640
Electrical Conductivity (20°C, % IACS)	34	40
Thermal Conductivity (% IACS)	36.1	39.8
Modulus of Elasticity (x10³, N/mm²)	73	73

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