2014A Aluminium Tube

Smiths Advanced Metals

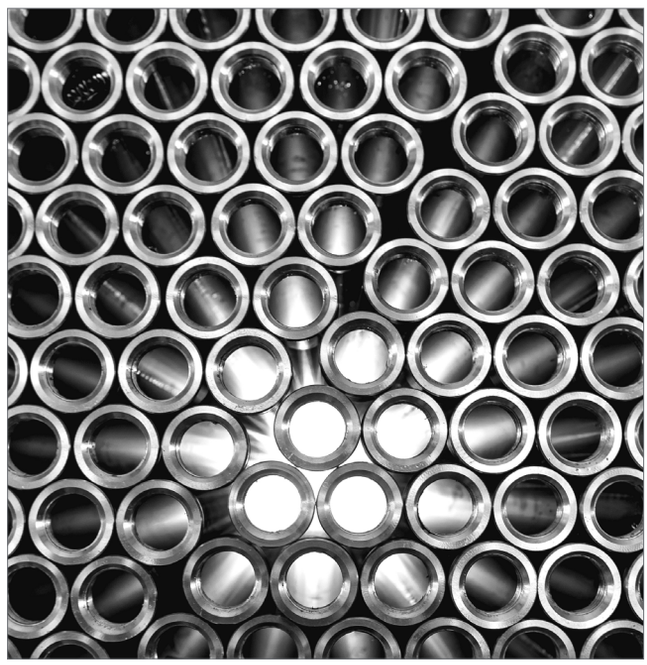
Tubes with good machinability

2014A aluminium tubes offer good machinability with high mechanical properties.

Aluminium alloy 2014a is a high strength alloy containing 4% to 5 % copper.

Finished components typically require a protective coating to avoid corrosion. Cold formability can be limited once the alloy is fully heat-treated, as weldability is limited too.

We stock 2014a aluminium tubes in a wide range of sizes and tempers (including T3, T4, T6 or T8 tempers).



Grades / Specifications

- BS L63
- BS L105
- BS L100
- BS EN 573, BS EN 755, BS EN 754

Cut to bespoke shape service:

We offer a complete tube cutting service utilising a range of in-house equipment. Tubes are cut to tight tolerances to match our clients' needs, and in many cases, this added value service removes requirements for further cutting.

Technical sales support:

To find out more about the 2014a aluminium tube 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

- Structural aerospace applications
- Military vehicles
- Bridges

Benefits

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

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
T3	380	290	8	110
T4	380	240	12	110
T6	450	380	8	140

Based on wall thickness ≤ 20 mm.

Properties as per BS EN 754-2

Physical Properties

Temper	T4	T6
Density (g/cm^3)	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 (x10^3, N/mm^2)	73	73

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bsi ISO 9001 Quality Management Systems CERTIFIED
AS/EN 9100 Aviation Space and Defence CERTIFIED
EN 9120 Aviation Space and Defence CERTIFIED
UKAS TESTING 1930

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.

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