DATASHEET

2014A ALUMINIUM

HIGH STRENGTH ALUMINIUM ALLOY

PRODUCT DESCRIPTION

Retaining its strength after heat-treatment, **2014A** is classed as a high strength aluminium alloy. Supplied in the heated treated condition which is solution heat treated and artificially aged, the material is a 4 to 5 % copper alloy. 2014A is used extensively in the production of high strength components, particularly in the Defence and Aerospace market. With very good machinability, the alloy is normally supplied in the T651 condition and is available in **extruded bar and plate**.

KEY FEATURES

- Good strength after heat treatment
- Can be hard anodised and easily plated
- Very good machinability

APPLICATIONS

- Aerospace and Defence components
- Structural applications and components
- Aerospace structures and vehicle frames

MATERIAL SPECIFICATIONS

- 2014A
- L168
- A92014
- AlCu4SiMg
- HE15
- BS H15
- W Nr. 3.1254 / 3.1255
- AMS 4121

CORROSION RESISTANCE

Poor resistance to atmospheric attack.

CHEMICAL COMPOSITION (weight %)

	Si	Fe	Cu	Zn	Mn	Mg	Ti	Others	Al
Min	0.50		3.90		0.40	0.20			Bal
Max	2.10	0.70	5.00	0.25	1.00	0.80	0.15	0.15	Bal

PHYSICAL PROPERTIES

Melting Point	535°C	Density	2.82 Kg/m³
Thermal conductivity	138 W/m.K	Thermal expansion coeeficient	23 x 10^{-6}/K
Modulus of elasticity	71 GPa		

MECHANICAL PROPERTIES

Elongation A50mm	6% min
Tensile Strength	415 MPa (min)
Proof Stress	370 MPa (min)

* Properties above for material in the T651 condition)

Thames Stockholders
Unit 5W. Woodall Road, Redburn Industrial Estate
Ponders End, Enfield, Middlesex EN3 4LQ

t +44 (0)20 8805 3282
f +44 (0)20 8804 8164
w www.thamesstock.com
e sales@thamesstock.com

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