

Aluminium Alloy L102 – 2014A

AMARI AEROSPACE

Aluminium alloy L102 – 2014A is a very high mechanical strength alloy used for critical applications such as is in the aerospace industry.

It has very good machinability and is thus used for the production of complex machined parts.

Note that the standard specifying this grade has been replaced by BSEN 2100.

Mechanical Properties

Temper	Min
Proof Stress 0.2% (MPa)	235 Min
Tensile Strength (MPa)	370 Min
Shear Strength (MPa)	260 Typ
Elongation A5 (%)	11 Min
Hardness Vickers (HV)	120 Typ

Chemical Composition

Element	% Present
Si	0.5-0.9
Fe	0.5 Max
Cu	3.9-5.0
Mn	0.4-1.2
Cr	0.1 Max
Mg	0.2-0.8
Zn	0.2 Max
Ni	0.2 Max
Pb	0.05 Max
Sn	0.05 Max
Ti & Zr	0.2 Max
Al	Balance

Alloy Designations

Aluminium alloy L168 - 2014A is covered by Standard BS EN 2100 and has similarities to the following standard designations and specifications:

2014 / 2014A AMS 4121

Physical Properties

Property	Value
Density	2.80 g/cm ³
Melting Point	640 °C
Modulus of Elasticity	73 GPa
Electrical Resistivity	40% IACS
Thermal Conductivity	155 W/m.K
Thermal Expansion	22.8 x10 ⁻⁶ /K

Temper

The most common tempers for L102 - 2014A aluminium are:

- ◆ T4
- ◆ T4510 and T4511

Supplied Forms

L102-2014A aluminium is supplied in Bar and Extruded Sections. ■

This Data is indicative only and must not be seen as a substitute for the full specification from which it is drawn. In particular, the mechanical property requirements vary widely with temper, product and product dimensions.

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www.amari-aerospace.com

Unit 1, Mauretania Road, Nursling, Southampton
SO16 0YS United Kingdom

Tel: 023 8074 2750 / Fax: 023 8074 1947

e-mail: sales@amari-aerospace.com