

Aluminium Alloy L168 – 2014A

AMARI AEROSPACE

Aluminium alloy L168 - 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.

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	0.25 Max
Ni	0.1 Max
Ti	0.15 Max
Ti & Zr	0.2 Max
Others Total	0.15 Max
Al	Balance

Alloy Designations

Aluminium alloy BS L168 - 2014A has similarities to the following standard designations and specifications:

2014 AMS 4121

Mechanical Properties

Temper	Min / Typical
Proof Stress 0.2% (MPa)	370 Min
Tensile Strength (MPa)	415 Min
Shear Strength (MPa)	290 Typ
Elongation A5 (%)	6 Min
Hardness Vickers (HV)	150 Typ

Physical Properties

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

Temper

The most common tempers for L168 - 2014A aluminium are:

- ◆ T6
- ◆ T6510
- ◆ T6511

Supplied Forms

L168-2014A aluminium is supplied in Bar, Rod 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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