Aluminium Alloy
L93 (AMS 4029) Plate

GOULD ALLOYS
THE LEADING EDGE IN METALS

SPECIFICATIONS

Commercial	2014A

Applications:
High strength structural components for aircraft , military vehicles and bridges, weapons manufacture, structural applications.

Characteristics:
Heat treatable alloy. High mechanical strength slightly higher than 2011 and 2017A.

CHEMICAL COMPOSITION

BS 2L93(1971)
Alloy L93

Element	% Present
Copper (Cu)	3.9 - 5
Manganese (Mn)	0.4 - 1.2
Silicon (Si)	0.5 - 0.9
Magnesium (Mg)	0.2 - 0.8
Iron (Fe)	0.5 max
Titanium + Zirconium (Ti+Zr)	0.2 max
Zinc (Zn)	0.2 max
Nickel (Ni)	0.2 max
Chromium (Cr)	0.1 max
Tin (Sn)	0.05 max
Lead (Pb)	0.05 max
Aluminium (Al)	Balance

ALLOY DESIGNATIONS

Aluminium alloy L93 - 2014A is covered by Standard BS EN 2100 and has similarities to the following standard designations and specifications **but may not be a direct equivalent:**
2014 / 2014A AMS 4029

TEMPER TYPES

The most common tempers for L93 - 2014A aluminium are:
- T4 - Solution heat treated and naturally aged to a substantially stable condition
- T6 - Solution heat treated and artificially aged
- T651 - Solution heat treated, stress relieved by stretching then artificially aged

SUPPLIED FORMS

L93-2014A aluminium is supplied in Plate
- Plate

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2800 g/cm³
Melting Point	640 °C
Thermal Expansion	22.8 x10^{-6} /K
Modulus of Elasticity	73000 GPa
Thermal Conductivity	134 - 135 W/m.K

MECHANICAL PROPERTIES

These Mechanical Properties apply to plate in the T651 temper

Thickness (mm)	Proof strength (Min)	Tensile Strength (Min)	Elongation % (Min)
Over 6 up to & incl. 12.5	410	460	7
Over 12.5 up to & incl. 25	410	460	6
Over 25 up to & incl. 40	400	450	5
Over 40up to & incl. 63	390	430	5
Over 63 up to & incl. 90	390	430	4
Over 90 up to & incl. 115	370	420	4
Over 115 up to & incl.140	350	410	4

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REVISION HISTORY

Datasheet Updated	09 January 2014

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