

## SPECIFICATIONS

Commercial	2024 - Obsolete
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### Applications:

High strength fabricated or machined items in aircraft industries, general engineering, machinery, military equipment, truck wheels. Screw machine products. Structural applications. Rivets.

### Characteristic Properties:

Heat treatable alloy. Very good machining characteristics. High strength alloy with a strength slightly higher than 2014(A) and 2017A and 2030. High fatigue strength. Suitable for welding only by resistance welding. Corrosion resistance only with cladding or other protection.

## CHEMICAL COMPOSITION

BS 2L97(1971)  
Alloy L97

Element	% Present
Copper (Cu)	3.8 - 4.9
Magnesium (Mg)	1.2 - 1.8
Manganese (Mn)	0.3 - 0.9
Iron (Fe)	0.5 max
Silicon (Si)	0.5 max
Titanium + Zirconium (Ti+Zr)	0.2 max
Zinc (Zn)	0.2 max
Chromium (Cr)	0.1 max
Nickel (Ni)	0.05 max
Lead (Pb)	0.05 max
Tin (Sn)	0.05 max
Aluminium (Al)	Balance

## ALLOY DESIGNATIONS

Aluminium alloy L97 - 2024 is covered by standard BS 2L97 (1971)

## TEMPER TYPES

The most common temper for L97 - 2024 aluminium plate is:

- T351 - Solution heat treated then stress relieved by stretching. Equivalent to T4 condition.

## SUPPLIED FORMS

L97 - 2024 aluminium is supplied in the following forms:

- Plate

## GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2790 g/cm <sup>3</sup>
Melting Point	640 °C
Thermal Expansion	23.10 x10 <sup>-6</sup> /K
Modulus of Elasticity	73000 GPa
Thermal Conductivity	121 W/m.K

## MECHANICAL PROPERTIES

Thickness (mm)	Proof Strength (Min)	Tensile Strength (Min)	Elongation % (Min)
Over 6 up to & incl. 12.5	280	430	10
Over 12.5 up to & incl. 25	280	430	10
Over 25 up to & incl. 40	280	420	9
Over 40 up to & incl. 63	270	410	9
Over 63 up to & incl. 90	270	410	8
Over 90 up to & incl. 115	270	400	8
Over 115 up to & incl. 140	260	390	7

## CONTACT

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## REVISION HISTORY

Datasheet Updated	09 January 2014
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