

### SPECIFICATIONS

Commercial	7075 - OBSOLETE
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#### Applications:

Aircraft and military highly stressed structural components. Rolling stock for machine parts and tools (for rubber and plastics). Screws and bolts, nuts. Rivets. Nuclear applications.

#### Characteristic Properties:

Heat treatable very high strength alloy with a strength slightly lower than 7010. Very high fatigue strength. Joining preferably by rivets, adhesives or screws. Corrosion protection is recommended also in outdoor atmosphere.

#### Precautions and Warnings:

Care to be taken when selecting temper (and other thermal treatment) for balance of properties. May be clad with 7072 for better protection against stress corrosion cracking.

### CHEMICAL COMPOSITION

BS 2L95(1971) Alloy L95	
Element	% Present
Zinc (Zn)	5.1 - 6.4
Magnesium (Mg)	2.1 - 2.9
Copper (Cu)	1.2 - 2
Iron (Fe)	0.5 max
Silicon (Si)	0.4 max
Manganese (Mn)	0.3 max
Chromium (Cr)	0.1 - 0.25
Titanium + Zirconium (Ti+Zr)	0.2 max
Others (Total)	0.15 max
Other (Each)	0.05 max
Tin (Sn)	0.05 max
Nickel (Ni)	0.05 max
Lead (Pb)	0.05 max
Aluminium (Al)	Balance

### ALLOY DESIGNATIONS

Aluminium alloy L95 - 7075 is covered by standard BS 2L95 (1971). BS2L95 (1971) was superseded by BS EN 2126 on 15 October 1996.

### TEMPER TYPES

The most common temper for L95 - 7075 aluminium is:

- T651 - Solution heat treated, stress relieved by stretching then artificially aged

### SUPPLIED FORMS

L93 - 7075 aluminium is supplied in Plate

- Plate

### GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.81 g/cm <sup>3</sup>
Melting Point	635 °C
Thermal Expansion	23.5 x10 <sup>-6</sup> /K
Modulus of Elasticity	72 GPa
Thermal Conductivity	134-160 W/m.K
Electrical Resistivity	40 % IACS

*'Typical' Physical Properties are given*

### MECHANICAL PROPERTIES

These Mechanical properties are for Plate in the T651 temper

Thickness (mm)	Proof Strength (Min)	Tensile Strength (Min)	Elongation % (Min)
Over 6 to & incl. 12.5	450	530	8
Over 12.5 up to & incl. 25	450	530	6
Over 25 up to & incl. 40	450	530	5
Over 40 up to & incl. 63	440	510	5
Over 63 up to & incl. 90	410	500	5

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## REVISION HISTORY

Datasheet Updated	09 January 2014
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