

Aluminium Alloy

L61 'O' Sheet



SPECIFICATIONS

Commercial	3103
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Applications:

Equipment for heating and cooling: heat exchangers, air condition evaporators, motor vehicle radiators, freezer linings, office equipment. Tubing, piping, containers, closures. Cladding alloy. Pressure vessels, aircraft and military components.

Characteristic Properties:

Very good resistance to atmospheric corrosion. Very good weldability. Good formability by pressing, drawing and roll forming. Medium strength alloy. Better mechanical properties (in particular at elevated temperatures) than 1xxx-alloys. Properties very close to those of 3003.

Precautions and Warnings:

Actual performance requires careful design of tools, lubrication and metal surface condition.

CHEMICAL COMPOSITION

BS 4L61(1985) Alloy L61	
Element	% Present
Manganese (Mn)	0.9 - 1.5
Iron (Fe)	0.7 max
Silicon (Si)	0.5 max
Magnesium (Mg)	0.3 max
Zinc (Zn)	0.2 max
Others (Total)	0.15 max
Copper (Cu)	0.1 max
Chromium (Cr)	0.1 max
Titanium + Zirconium (Ti+Zr)	0.1 max
Other (Each)	0.05 max
Aluminium (Al)	Balance

The material shall be supplied annealed (O).

ALLOY DESIGNATIONS

Aluminium alloy L61 - 3103 is covered by standard BS EN 4L61 (1985)

TEMPER TYPES

The most common tempers for L61 - 3103 aluminium is:

- O - Soft

SUPPLIED FORMS

L61 - 3103 aluminium is supplied in the following forms:

- Sheet
- Strip

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.73 g/cm ³
Melting Point	655 °C
Thermal Expansion	23.1 x10 ⁻⁶ /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	160 W/m.K
Electrical Resistivity	42 % IACS

MECHANICAL PROPERTIES

BS 4L61(1985) Sheet 0.4mm to 0.8mm	
Property	Value
Elongation A50 mm	20 Min %
Tensile Strength	90 Min - 130 Max N/mm ²

Mechanical properties relate to material with a nominal thickness of 0.4mm up to and including 0.8mm. The specification contains other values for different material thicknesses.

CONTACT

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REVISION HISTORY

Datasheet Updated	09 January 2014
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