

L111 T6511

## Chemical Properties

Element	Chemical Composition %
Silicon (Si)	0.70 - 1.30
Magnesium (Mg)	0.50 - 1.20
Manganese (Mn)	0.40 - 1.00
Iron (Fe)	0.0 - 0.50
Chromium (Cr)	0.0 - 0.25
Titanium (Ti)	0.0 - 0.20
Zinc (Zn)	0.0 - 0.20
Copper (Cu)	0.0 - 0.10
Nickel (Ni)	0.0 - 0.10
Lead (Pb)	0.0 - 0.05
Tin (Sn)	0.0 - 0.05
Aluminium (Al)	Balance

## Mechanical Properties

Dimension (mm)	Proof Strength	Tensile Strength	Elongation
Up to & incl. 20	255 Min	295 Min	7% Min
Over 20 up to & incl. 150	270 Min	310 Min	8% Min
Over 150 up to & incl. 200	240 Min	280 Min	5% Min

## Physical Properties

Property	Value
Density	2710 g/cm <sup>3</sup>
Melting Point	650 °C
Thermal Expansion	23.10 x 10 <sup>-6</sup> /K
Modulus of Elasticity	70000 GPa
Thermal Conductivity	167-216 W/m.K

## Temper Types

The most common temper for L111-6082 aluminium are:

T4 - Solution heat treated and naturally aged to a substantially stable condition

T5 - Cooled from an elevated temperature shaping process and artificially aged

T6 - Solution heat treated and artificially aged

T6511 - Solution heat treated and stress-relieved by stretching then artificially aged with minor

straightening after aging - Equivalent to T4 condition

## Disclaimer

This data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

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