

L102 T4511

Chemical Properties

Element	Chemical Composition %
Copper (Cu)	3.90 - 5.00
Manganese (Mn)	0.40 - 1.20
Silicon (Si)	0.50 - 0.90
Magnesium (Mg)	0.20 - 0.80
Iron (Fe)	0.0 - 0.50
Zinc (Zn)	0.0 - 0.20
Nickel (Ni)	0.0 - 0.20
Titanium + Zirconium (Ti + Zr)	0.0 - 0.20
Chromium (Cr)	0.0 - 0.10
Tin (Sn)	0.0 - 0.05
Lead (Pb)	0.0 - 0.05
Aluminium (Al)	Balance

Mechanical Properties

Thickness (mm)	Proof Strength	Tensile Strength	Elongation
Up to & incl. 10	235 min	370 min	11% min
Over 10 up to & incl. 20	260 min	400 min	11% min
Over 20 up to & incl. 75	270 min	410 min	14% min
Over 75 up to & incl. 150	260 min	400 min	12% min
Over 150 up to & incl. 200	230 min	370 min	8% min
Properties relate to T4511 temper			

Physical Properties

Property	Value
Density	2800 g/cm ³
Melting Point	640 °C
Thermal Expansion	22.8 x 10 ⁻⁶ /K
Modulus of Elasticity	73000 GPa
Thermal Conductivity	134 W/m.K

Temper Types

The most common tempers for L102 - 2014A aluminium are:

T6 - Solution heat treated and artificially aged

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

T4511 - Solution heat treated and stress-relieved by stretching. 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.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.

Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.

□