

Aluminium Alloy 3L63 T6 Tube

SPECIFICATIONS

Commercial	2014A
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Applications:
High strength drawn tubing.

Characteristic Properties:
Heat treatable alloy. High mechanical strength slightly higher than 2011 and 2017A.

CHEMICAL COMPOSITION

BS 3L63(1971) Alloy 3L63	
Element	% Present
Copper (Cu)	3.9 - 5
Manganese (Mn)	0.4 - 1.2
Silicon (Si)	0.5 - 0.9
Magnesium (Mg)	0.2 - 0.8
Iron (Fe)	0.5 max
Nickel (Ni)	0.2 max
Zinc (Zn)	0.2 max
Titanium + Zirconium (Ti+Zr)	0.2 max
Chromium (Cr)	0.1 max
Tin (Sn)	0.05 max
Lead (Pb)	0.05 max
Aluminium (Al)	Balance

ALLOY DESIGNATIONS

Aluminium alloy 3L63 - 2014A is covered by standard BS EN 4L63 (1971)

TEMPER TYPES

The most common tempers for 3L63 - 2014A aluminium tubing is:

- T6 - Solution heat treated and artificially aged
- H111 - Some work hardening imparted by shaping processes but less than required for H11 temper

SUPPLIED FORMS

3L63 - 2014A aluminium is supplied as drawn tube

- Tube

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.8 g/cm ³
Melting Point	640 °C
Thermal Expansion	22.8 x10 ⁻⁶ /K
Modulus of Elasticity	73 GPa
Thermal Conductivity	134-155 W/m.K

MECHANICAL PROPERTIES

BS 3L63(1971) Tube	
Property	Value
Proof Stress	370 Min MPa
Tensile Strength	450 Min MPa
Elongation A50 mm	7 Min %

CONTACT

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REVISION HISTORY

Datasheet Updated	07 January 2014
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