RIGHTON BLACKBURNS
METALS AND PLASTICS

EXPERTISE COLLABORATION INTEGRITY

Aluminium

2014 T651 Sheet & Plate

Datasheet Updated
05 August 2021

RANGE

Plate can be cut to customer requirements. Please contact your local Service Centre for further details.

Product Form	Size Range
Plate	1/2" - 4"

SPECIFICATIONS

Commercial	2014 T651
EN	2014 T651

A high strength aluminium alloy which retains its strength after heat treatment.

CHEMICAL COMPOSITION

BS EN 573-3
Alloy 2014

Element	% Present
Silicon (Si)	0.50 - 0.90
Iron (Fe)	0.50 max
Copper (Cu)	3.90 - 5.00
Zinc (Zn)	0.0.25 max
Manganese (Mn)	0.40 - 1.20
Magnesium (Mg)	0.20 - 0.80
Titanium (Ti)	0.15 max
Others (Total)	0.15 max
Chromium (Cr)	0.10 max
Nickel (Ni)	0.10 max
Other (Each)	0.05 max
Titanium + Zirconium (Ti+Zr)	0.20 max
Aluminium (Al)	Balance

TEMPER TYPES

This datasheet relates to temper T651. The most common temper for aluminium alloy 2014A are:

- T3
- T6511
- T651
- T6

SUPPLIED FORMS

- Sheet
- Plate

APPLICATIONS

- High strength aerospace components
- Military vehicles
- Bridges
- Weapons manufacture
- Structural applications

CHARACTERISTICS

- Machinability of aluminium alloy 2014A is very good.
- Resistance to atmospheric attack is poor especially when exposed to water or salt environments. To protect against atmospheric corrosion in storage, lightly coat with lanolin based protective oil.
- Good hard anodising capability
- Good strength levels after heat treatment

MECHANICAL PROPERTIES

BS EN 485-2
Sheet 0.4mm to 6mm

Property	Value
Tensile Strength	440 Min MPa
Proof Stress	390 Min MPa
Hardness Brinell	133 HB

BS EN 485-2
Plate 6mm to 12.5mm

Property	Value
Proof Stress	395 Min MPa
Tensile Strength	450 Min MPa
Elongation A50 mm	7 Min %
Hardness Brinell	135 HB

BS EN 485-2
Plate 12.5mm to 40mm

Property	Value
Proof Stress	400 Min MPa
Tensile Strength	460 Min MPa
Hardness Brinell	138 HB
Elongation A	6 Min %

BS EN 485-2
Plate 40mm to 60mm

Property	Value
Proof Stress	390 Min MPa
Tensile Strength	450 Min MPa
Hardness Brinell	135 HB
Elongation A	5 Min %

BS EN 485-2
Plate 60mm to 80mm

Property	Value
Proof Stress	380 Min MPa
Tensile Strength	435 Min MPa
Hardness Brinell	131 HB
Elongation A	4 Min %

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. Please note that the 'Datasheet Update' date shown above is no guarantee of accuracy or whether the datasheet is up to date.

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