

## Aluminium

## 2014A 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	2014A T651
EN	2014A 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)	0.025 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 %

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