

## Aluminium 2014 Data sheet.

2014 is a copper based, high strength aluminium. Machinability of the material is good in the annealed state but somewhat more difficult in heat treated conditions. The alloy is easily cold worked in the T3 and T4 tempers.

Aluminium 2014 is has the following uses...

- Contribution to the manufacture of aircraft structures
- Truck frame

Aluminium 2014 is available from us in bar, hexagon, tube and flats in a range of sizes...

**Round bars: from ¼" dia - 12" dia**

### Chemical & Physical Properties

#### Typical Chemical Composition

Elements	Min %	Max %
Al	Remainder	
Cr		0.10
Cu	3.9	5.0
Fe		0.50
Mg	0.20	0.8
Mn	0.40	1.2
Ni		0.10



Tel : (0044) (0)1384 868080 Fax : (0044) (0)1384 482088

Email : sales@ppnonferrous.co.uk

Others each		0.05
Others total		0.15
Si	0.50	0.9
Ti		0.15
Zn		0.25
Zr+Ti		0.20

### Typical Mechanical Composition

Property/unit	Condition	Temp	Size	Min	Max
Tensile Strength (N/mm <sup>2</sup> )	H13	RT	<= 18mm	210	300
0.2% Proof Stress (N/mm <sup>2</sup> )	H13	RT	<= 18mm	190	
Elongation in 100mm %	H13	RT	<= 18mm	5	
Tensile Strength (N/mm <sup>2</sup> )	T4	RT	<= 18mm	380	
0.2% Proof Stress (N/mm <sup>2</sup> )	T4	RT	<= 18mm	255	
Elongation in 100mm %	T4	RT	<= 18mm	18	
Tensile Strength (N/mm <sup>2</sup> )	T6	RT	<= 18mm	440	
0.2% Proof Stress (N/mm <sup>2</sup> )	T6	RT	<= 18mm	415	
Elongation in 100mm %	T6	RT	<= 18mm	9	
Tensile Strength (N/mm <sup>2</sup> )	T62	RT	<= 18mm	440	
0.2% Proof Stress (N/mm <sup>2</sup> )	T62	RT	<= 18mm	415	
Elongation in 100mm %	T62	RT	<= 18mm	9	

### Tolerances

Bar :

Diameter	Tolerance
8mm – 18mm	+/- 0.22mm
18mm – 25mm	+/- 0.25mm



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<b>25mm – 40mm</b>	<b>+/- 0.30mm</b>
<b>40mm – 50mm</b>	<b>+/- 0.35mm</b>
<b>50mm – 65mm</b>	<b>+/- 0.40mm</b>
<b>65mm – 80mm</b>	<b>+/- 0.45mm</b>
<b>80mm – 100mm</b>	<b>+/- 0.55mm</b>
<b>100mm – 120mm</b>	<b>+/- 0.65mm</b>
<b>120mm – 150mm</b>	<b>+/- 0.80mm</b>
<b>150mm – 180mm</b>	<b>+/- 1.00mm</b>
<b>180mm – 220mm</b>	<b>+/- 1.15mm</b>
<b>220mm – 270mm</b>	<b>+/- 1.30mm</b>
<b>270mm – 320mm</b>	<b>+/- 1.60mm</b>

The information given above is based on our current knowledge and is given in good faith; however the company will accept no liability in respect of any third party reliance thereon.