



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

Email : sales@ppnonferrous.co.uk

## Aluminium 2011 data sheet.

Alloy 2011 is a high mechanical strength material that machines exceptionally well. It is well suited to use in automatic lathes, as it is a free machining alloy.

The excellent machining characteristics of 2011 allow it to be cut into complex and detailed shapes successfully.

Alloy 2011 is typically used for the following applications...

- Appliance parts & trims
- Automotive trims
- Fasteners & fittings
- Ordnance

Aluminium 2011 is available from us in bar in the following sizes...

**In the drawn condition:**

**3mm dia - 3" dia**

**In the extruded condition:**

**20mm dia- 180mm dia**

**Chemical & Physical Properties**

## Typical Chemical Composition

Elements	Min %	Max %
Al	Remainder	
Bi	0.20	0.6
Cu	4.5	6.0
Fe		0.50
Others each		0.05
Others total		0.15
Pb	0.20	0.6
Si		0.40
Zn		0.30

## Typical Mechanical Properties

Property/unit	Condition	Temp	Size	Min
Tensile strength (n/mm <sup>2</sup> )	T3 (bar)	RT	<= 40MM	320
0.2% Proof Stress (N/mm <sup>2</sup> )	T3 (bar)	RT	<= 40MM	270
Elongation in 5.65√Cross sectional Area	T3 (bar)	RT	<= 40MM	10
Elongation in 50mm %	T3 (bar)	RT	<= 40MM	8
Tensile strength (n/mm <sup>2</sup> )	T3 (bar)	RT	>40< = 50MM	300
0.2% Proof Stress (N/mm <sup>2</sup> )	T3 (bar)	RT	>40< = 50MM	250
Elongation in 5.65√Cross sectional Area	T3 (bar)	RT	>40< = 50MM	10
Tensile strength (n/mm <sup>2</sup> )	T3 (bar)	RT	>50< = 80MM	280
0.2% Proof Stress (N/mm <sup>2</sup> )	T3 (bar)	RT	>50< = 80MM	210
Elongation in 5.65√Cross sectional Area	T8 (bar)	RT	>50< = 80MM	10
Tensile strength (n/mm <sup>2</sup> )	T8 (bar)	RT	<= 80MM	370
0.2% Proof Stress	T8 (bar)	RT	<= 80MM	270



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<b>(N/mm<sup>2</sup>)</b>				
<b>Elongation in 5.65√Cross sectional Area</b>	T8 (bar)	RT	<= 80MM	8
<b>Elongation in 50mm %</b>	T8 (bar)	RT	<= 80MM	6

## Tolerances

<b>Diameter</b>	<b>Tolerance</b>
8mm – 18mm	+/- 0.30mm
18mm – 25mm	+/- 0.35mm
25mm – 40mm	+/- 0.40mm
40mm – 50mm	+/- 0.45mm
50mm – 65mm	+/- 0.50mm
65mm – 80mm	+/- 0.70mm
80mm – 100mm	+/- 0.90mm
100mm – 120mm	+/- 1.00mm
120mm – 150mm	+/- 1.20mm
150mm – 180mm	+/- 1.40mm
180mm – 220mm	+/- 1.70mm
220mm – 270mm	+/- 2.00mm
270mm – 320mm	+/- 2.50mm

The information 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.