

## Aluminium

## 2011 T3 Bar

Datasheet Updated  
05 August 2021

### RANGE

Product Form	Imperial Sizes	Metric Sizes
Round Bar	3/16"- 16"	6mm - 50mm

### SPECIFICATIONS

Commercial	2011 T3
EN	2011 T3

Extruded and drawn machining bar with high mechanical strength that machines exceptionally well.

### CHEMICAL COMPOSITION

BS EN 573-3  
Alloy 2011

Element	% Present
Silicon (Si)	0.00 - 0.40
Iron (Fe)	0.00 - 0.70
Copper (Cu)	5.00 - 6.00
Lead (Pb)	0.20 - 0.40
Bismuth (Bi)	0.20 - 0.60
Zinc (Zn)	0.00 - 0.30
Others (Total)	0.00 - 0.15
Other (Each)	0.00 - 0.05
Aluminium (Al)	Balance

### ALLOY DESIGNATIONS

Aluminium alloy 2011 also corresponds to the following standard designations and specifications **but may not be a direct equivalent** :

- AlCu6BiPb
- FC1
- A92011
- CB60
- 3.1655

### TEMPER TYPES

The most common temper for 2011 aluminium bar - extruded and drawn - is:

- T3

### SUPPLIED FORMS

- Bar

### APPLICATIONS

2011 is typically used in applications that require parts manufactured by repetition machining. These applications may include:

- Appliance parts & trim
- Automotive trim
- Fasteners and fittings
- Ordnance

## CHARACTERISTICS

- Machining at high speeds produces fine chips that are easily removed. The excellent machining characteristics allow the production of complex and detailed parts. In some circumstances 2011 can replace free machining brass without the need for alterations to tooling.
- It has poor corrosion resistance, which means parts made from 2011 tend to be anodised to provide additional surface protection.
- Alloy 2011 has extremely poor weldability and thus welding is not recommended. However, as it is used for machined parts there is rarely a need to weld this alloy.

## MECHANICAL PROPERTIES

### BS EN 755-2

#### Rod and Bar Up to 200mm Dia. or 60mm A/F

Property	Value
Elongation A50 mm	12 Min %
Proof Stress	125 Min MPa
Tensile Strength	275 Min MPa
Hardness Brinell	95 HB
Elongation A	14 Min %

### BS EN 755-2

#### Extruded and Drawn Bar Up to 200mm Dia. or 60mm A/F

Property	Value
Proof Stress	270 Min MPa
Tensile Strength	320 Min MPa
Hardness Brinell	90 Min HB
Elongation A	10 Min %

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