# Dalsteel Metals Pty Limited

## **SPECIFICATIONS**

Commercial	6026
EN	6026

Aluminium alloy 6026 is a recent developed alloy meeting the following European Environmental Protection Directives:

# 2000/53/CE-ELV – For the automotive sector # 2002/95/CE-RoHS – For the electrical and electronics sector

Alloy 6026 does not contain  $\operatorname{Tin}(\operatorname{Sn})$  which can cause weakness and cracking of machined parts when subjected to stress and high temperature.

Alloy 6026 has excellent corrosion resistance and is suitable for anodising to provide both decorative and hard anodised finishes.

Alloy 6026 is a good alternative to alloys 6061 and 6082. Extruded Bars in alloy 6026 have the same minimum tensile strength as alloys 2011 & 2030.

### **Applications**

6026 can be used in place of alloys 6082 or 6081, especially where the finished parts require extensive machining

- $\sim$  Machined Parts Especially on high speed automatic lathes
- ~ Decorative Anodising
- ~ Hard Anodising
- ~ Hot Forging
- ~ Automotive Components such as Brake Systems
- ~ Electrical & Electronic Parts

### CHEMICAL COMPOSITION

Element	% Present
Bismuth (Bi)	0.50 - 1.50
Silicon (Si)	0.60 - 1.40
Magnesium (Mg)	0.60 - 1.20
Manganese (Mn)	0.20 - 1.00
Copper (Cu)	0.20 - 0.50
Iron (Fe)	0.0 - 0.70
Lead (Pb)	0.0 - 0.40
Zinc (Zn)	0.0 - 0.30
Chromium (Cr)	0.0 - 0.30
Titanium (Ti)	0.0 - 0.20
Others (Total)	0.0 - 0.15
Other (Each)	0.0 - 0.05
Tin (Sn)	0.0 - 0.05
Aluminium (Al)	Balance

### TEMPER TYPES

The most common temper for 6026 aluminium is:

 T9 - Solution heat treated, artificially aged and cold worked

## SUPPLIED FORMS

Alloy 6026 is typically supplied as extruded and/or drawn bar

Bar

### GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.72 g/cm <sup>3</sup>
Thermal Expansion	23.4 x10 <sup>-6</sup> /K
Modulus of Elasticity	69 GPa
Thermal Conductivity	172 W/m.K
Electrical Resistivity	$0.039~\text{x}10^{\text{-}6}~\Omega$ .m

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### MECHANICAL PROPERTIES

6026 T9 Extruded and Drawn Bar	
Property	Value
Proof Stress	330 Min MPa
Tensile Strength	360 Min MPa
Elongation A50 mm	4 Min %
Hardness Brinell	95 Min HB

### MACHINABILITY

6026 can be used in place of alloys 6082 or 6081, especially where the finished parts require extensive machining on high speed automatic lathes and machining centres

### WELDABILITY

Weldability of alloy 6026 is good

## CONTACT

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# **REVISION HISTORY**

Datasheet Updated 07 October 2021

# **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.

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