

Aluminium Alloy 6262

Aluminium alloy 6262 is a heat treatable alloy with very good corrosion resistance and strength. Additions of bismuth to the alloy mean that 6262 has excellent machinability and surface finish.

High-speed steel or carbide tooling can be used to obtain smooth finishes. Heavy cutting requires oil lubricant but light cutting can be done dry.

Alloy 6262 can be used in place of 2011 when higher corrosion resistance and better anodising response is required.

Applications

6262 is commonly used in: Commonly used in the manufacture of:

- ◆ Screw machine products
- ◆ Camera parts
- ◆ Nuts
- ◆ Couplings
- ◆ Marine fittings
- ◆ Decorative hardware and appliance fittings
- ◆ Hinge pins
- ◆ Oil line fittings
- ◆ Valves and valve parts

Chemical Composition

Element	% Present
Si	0.4-0.8%
Fe	0.7%
Cu	0.15-0.4%
Cr	0.4-0.14%
Mn	0.15%
Mg	0.8-1.2%
Zn	0.25%
Ti	0.15%
Pb	0.4-0.7%
Bi	0.4-0.7%
Al	Balance

Alloy Designations

Aluminium alloy 6262 also corresponds to the following standard designations and specifications:

AA6262 Al 1.0Mg 0.6Si Pb
A96262

Physical Properties

Property	Value
Density	2.71 g/cm ³
Melting Point	582°C
Modulus of Elasticity	68.3 GPa
Electrical Resistivity	0.039x10 ⁻⁶ Ω.m
Thermal Conductivity	172 W/m.K
Thermal Expansion	23.4x10 ⁻⁶ /K

Mechanical Properties

Temper	T6	T9
Proof Stress 0.2% (MPa)	240	330
Tensile Strength (MPa)	290	360
Shear Strength (MPa)	-	-
Elongation A5 (%)	8	3
Hardness Vickers (HV)	-	-

Temper

The most common tempers for 6262 aluminium are:

- ◆ T6 - Solution heat treated and artificially aged
- ◆ T9 - Solution heat-treated, artificially aged, and cold-worked.

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All Data is indicative only and must not be seen as a substitute for the full specification from which it is drawn. In particular, the mechanical property requirements vary widely with temper, product form and product dimensions. For more complete details please refer to the relevant specification – The BS EN Specifications for aluminium are listed on a separate Datasheet.

Fabrication

Process	Rating
Workability – Cold	Poor
Machinability	Excellent
Weldability – Gas	Excellent
Weldability – Arc	Excellent
Weldability – Resistance	Excellent
Brazability	Excellent
Solderability	-

Welding

Alloy 6262 is readily weldable by all commercial methods and can also be brazed.

Supplied Forms

Alloy 6262 is supplied by Aalco as round bar.

Alloy Designations

Aluminium alloy 5754 also corresponds to the following standard designations and specifications:

A95754	Al Mg3
Al 3.1Mg Mn Cr	AW-5754

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