

SPECIFICATIONS

Commercial	6060
EN	6060

Aluminium alloy 6060 is a medium strength heat treatable alloy with a strength slightly lower than 6005A. It has very good corrosion resistance and very good weldability plus good cold formability especially in temper T4. It is commonly used alloy for very complex cross sections and has very good anodizing response.

Applications

Alloy 6060 is typically used for extrusions with complex cross sections and/or requiring anodising:

- ~ Architectural sections for windows, doors, curtain walls
- ~ Interior fittings, frame systems, lighting, ladders, railings, fences
- ~ Heat sink sections, electronic modules, electro motor housings
- ~ Flexible assembly systems, special machinery elements
- ~ Truck and trailer flooring, pneumatic installation, railway, inside applications
- ~ Irrigation, heating and cooling pipes
- ~ Furniture, office equipment.

CHEMICAL COMPOSITION

BS EN 573-3:2009 Alloy 6060	
Element	% Present
Magnesium (Mg)	0.35 - 0.6
Silicon (Si)	0.3 - 0.6
Iron (Fe)	0.1 - 0.3
Zinc (Zn)	0.15 max
Others (Total)	0.15 max
Manganese (Mn)	0.1 max
Copper (Cu)	0.1 max
Titanium (Ti)	0.1 max
Chromium (Cr)	0.05 max
Other (Each)	0.05 max
Aluminium (Al)	Balance

TEMPER TYPES

The most common temper for 6060 aluminium is:

- T5 - Cooled from an elevated temperature shaping process and artificially aged

SUPPLIED FORMS

Alloy 6060 is typically supplied as extrusions, specially those with complex shapes and/or requiring anodizing

- Extrusions

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.70 g/cm ³
Melting Point	655 °C
Thermal Expansion	23.4 x10 ⁻⁶ /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	209 W/m.K
Electrical Resistivity	54 % IACS
Electrical Resistivity	0.032 x10 ⁻⁶ Ω .m

MECHANICAL PROPERTIES

BS EN 755-2:2008 Extrusions Up to 150mm Dia., 15mm WT tube, 5mm WT profiles	
Property	Value
Proof Stress	120 Min MPa
Tensile Strength	160 Min MPa
Elongation A50 mm	6 Min %
Hardness Brinell	60 HB
Elongation A	8 Min %

The properties listed above are for material in the T5 condition

WELDABILITY

Weldability – Gas: Good
Weldability – Arc: Very Good
Weldability – Resistance: Good
Brazability: Very Good
Solderability: Good

FABRICATION

Workability – Cold: Good
Machinability: Acceptable
Anodising: Very Good

CONTACT

Address:	Please make contact directly with your local service centre, which can be found via the Locations page of our web site
Web:	www.aalco.co.uk

REVISION HISTORY

Datasheet Updated	13 November 2018
--------------------------	------------------

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.

Please note that the 'Datasheet Update' date shown above is no guarantee of accuracy or whether the datasheet is up to date.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.

Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.