Aluminium Alloy
6060 - T5 Extrusions

Dalsteel Metals Pty Limited

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 - 0.60
Silicon (Si)	0.30 - 0.60
Iron (Fe)	0.10 - 0.30
Zinc (Zn)	0.0 - 0.15
Others (Total)	0.0 - 0.15
Titanium (Ti)	0.0 - 0.10
Manganese (Mn)	0.0 - 0.10
Copper (Cu)	0.0 - 0.10
Other (Each)	0.0 - 0.05
Chromium (Cr)	0.0 - 0.05
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/cm³
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

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CONTACT

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REVISION HISTORY

Datasheet Updated 13 November 2018

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