

Aluminium Alloy 6060
Material Data Sheet
Scope

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

Application

This material is used for architectural sections for windows, doors and curtain walls, truck and trailer flooring, pneumatic installation and railway applications, irrigation, heating and cooling pipes, furniture and office equipment, heat sink sections, electronic modules and electro-motor housings and interior fittings, frame systems, lighting, ladder, railings and fences.

Supplied Forms

- Extrusions

Temper Types

The most common temper for 6060 aluminium is: T5 - Cooled from an elevated temperature shaping process and artificially aged.

Fabrication

- Solderability: Good
- Weldability - Gas: Good
- Weldability - Arc: Very Good
- Weldability - Resistance: Good
- Brazability: Very good
- Anodising: Very Good
- Workability - Cold: Good
- Machinability: Acceptable

Chemical Composition

Element	% Present
Manganese (Mn)	0.0 - 0.10
Iron (Fe)	0.10 - 0.30
Magnesium (Mg)	0.35 - 0.60
Silicon (Si)	0.30 - 0.60
Copper (Cu)	0.0 - 0.10
Zinc (Zn)	0.0 - 0.15
Titanium (Ti)	0.0 - 0.10
Aluminium (Al)	Balance

Mechanical properties at room temperature

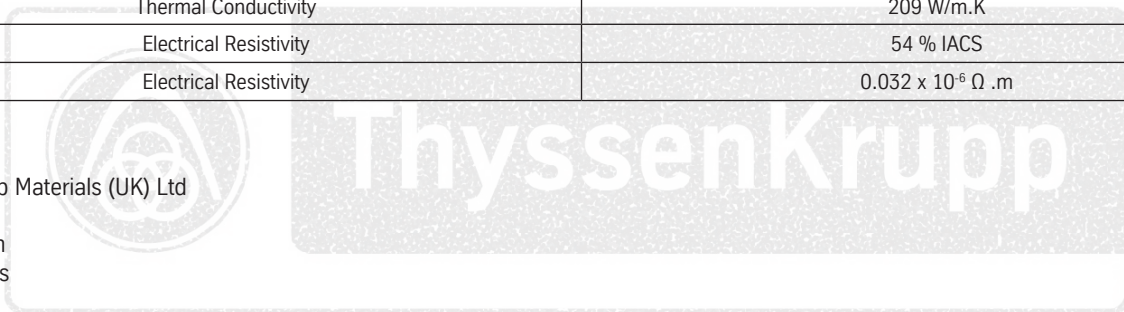
Property	Value
Proof Stress	185 MPa
Tensile Strength	220 MPa
Elongation	13 %
Shear Strength	140 MPa
Hardness Brinell	80 HV

Reference data for some physical properties (for guidance only)

Property	Value
Density	2.70 Kg/m ³
Melting Point	655 °C
Thermal Expansion	23.4 x 10 ⁻⁶ /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	209 W/m.K
Electrical Resistivity	54 % IACS
Electrical Resistivity	0.032 x 10 ⁻⁶ Ω .m

Editor

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Important Note

Information given in this data sheet about the condition or usability of materials respectively products are no warranty for their properties, but act as a description.

The information, we give on for advice, comply to the experiences of the manufacturer as well as our own. We cannot give warranty for the results of processing and application of the products.