

Classed as being a non heat treatable, commercially pure grade, 1050 has a 99.5% aluminium content and is noted for its excellent cold formability, corrosion resistance and aesthetic qualities. Grade 1050 is the most commonly used Aluminium for general sheet metal work where strength is not essential.

The corrosion resistance of 1050 Aluminium means it can be utilised in many different atmospheres including industrial and marine environments. These factors combined with a capability for a highly polished finish, the ability to be formed easily via bending or spinning and excellent anodising and joining properties are behind its popularity in the marketplace.

Chemical Composition

Aluminium	99.5 min	Manganese	0.05 max
Iron	0.40 max	Copper	0.05 max
Silicon	0.25 max	Magnesium	0.05 max
Zinc	0.07 max	Titanium	0.05 max

Related Specifications

EN AW1050A	BS1470: 1050
AA1050A	A91050
UNS A91050	BS -1B / 5L36
A1050	DIN 3.0255 - Al99.5
UNI 9001/2	L-3051

Key Features

- Excellent cold forming properties
- Very good anodising capability
- Easily joined
- High corrosion resistance
- Desirable reflective aesthetic appearance

Typical Physical Properties

Melting Point	635°C
Density	2.71 g/cm ³
Thermal conductivity	230 W/m°K
Thermal expansion coefficient	24 x 10 ⁻⁶
Electrical Conductivity	61.6 IACS
Electrical resistivity	0.0282 microhm m
Modulus of elasticity	69 GPa

Fabrication Properties

Cold Formability	Excellent
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Machinability	Poor
Soldering / Brazing	Excellent
Oxy-acetylene welding	Excellent
Gas-shielded arc welding	Excellent
Resistance welding	Excellent

Typical Applications

The 1050 grade is often used for general fabrication and sheet metal work, kitchenware, heat transfer components, boiler making, chemical and pharmaceutical process plant equipment, food industry vessels and containers, architectural flashings, lamp reflectors, cable sheathing and panelling.

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