

# Aluminium Alloy 1050 'O' Sheet



## SPECIFICATIONS

Commercial	1050
EN	1050

Aluminium alloy 1050 is a popular grade of aluminium for general sheet metal work where moderate strength is required.

Alloy 1050 is known for its excellent corrosion resistance, high ductility and highly reflective finish.

Applications - Alloy 1050 is typically used for:

Chemical process plant equipment  
Food industry containers  
Pyrotechnic powder  
Architectural flashings  
Lamp reflectors  
Cable sheathing

## CHEMICAL COMPOSITION

BS EN 573-3:2009 Alloy 1050	
Element	% Present
Iron (Fe)	0.0 - 0.40
Silicon (Si)	0.0 - 0.25
Zinc (Zn)	0.0 - 0.07
Titanium (Ti)	0.0 - 0.05
Manganese (Mn)	0.0 - 0.05
Copper (Cu)	0.0 - 0.05
Magnesium (Mg)	0.0 - 0.05
Other (Each)	0.0 - 0.03
Aluminium (Al)	Balance

## ALLOY DESIGNATIONS

Aluminium alloy 1050 also corresponds to the following standard designations and specifications **but may not be a direct equivalent:**

AA1050A  
S1B  
A91050

## TEMPER TYPES

The most common tempers for 1050 aluminium are:

- O - Soft

## SUPPLIED FORMS

Plain sheet  
Plain sheet with a PVC coating on one side  
Stucco sheet  
Stucco sheet with a PVC coating on one side  
Shate

- Sheet

## GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.71 g/cm <sup>3</sup>
Melting Point	650 °C
Thermal Expansion	24 x10 <sup>-6</sup> /K
Modulus of Elasticity	71 GPa
Thermal Conductivity	222 W/m.K
Electrical Resistivity	0.0282 x10 <sup>-6</sup> Ω .m

## MECHANICAL PROPERTIES

BS EN 485-2:2008 Sheet 0.2mm to 6.00mm	
Property	Value
Proof Stress	20 Min MPa
Tensile Strength	65 -95 MPa
Hardness Brinell	20 HB

Properties above are for materials in the soft 'O' condition

## WELDABILITY

When welding 1050 to itself or an alloy from the same subgroup the recommended filler wire is 1100. For welding to alloys 5083 and 5086 or alloys from the 7XXX series, the recommend wire is 5356. For other alloys use 4043 filler wire.

## FABRICATION

Workability – Cold: Excellent  
Machinability: Poor  
Weldability – Gas: Excellent  
Weldability – Arc: Excellent  
Weldability – Resistance: Excellent  
Brazability: Excellent  
Solderability: Excellent

## 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](http://www.aalco.co.uk)

## REVISION HISTORY

**Datasheet Updated** 13 January 2020

## 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.