

## Alloy Specification Sheet – 1050



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

Element	% Present
Silicon	0.25
Iron	0.4
Copper	0.05
Manganese	0.05
Magnesium	0.05
Zinc	0.07
Titanium	0.05
Aluminium	Balance

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

Mechanical Property	H12	H14	H16	H18	O
Proof Stress 0.2% (Mpa)	85	105	120	140	35
Tensile Strength (Mpa)	100	115	130	150	80
Shear Strength (Mpa)	60	70	80	85	50
Elongation A5 (%)	12	10	7	6	42
Hardness Vickers (HV)	30	36	-	44	20

Physical Property	Value
Density	2.71 g/cm <sup>3</sup>
Melting Point	650°C
Modulus of Elasticity	71 GPa
Electrical Resistivity	0.0282 x 10 <sup>-6</sup> Ωm
Thermal Conductivity	222 W/mK
Thermal Expansion	24 x 10 <sup>-6</sup> / K

Alloy 1050 is extremely ductile, making it particularly suited to forming.

Fabrication Process	Rating
Workability – Cold	Excellent
Machinability	Poor
Weldability – Gas	Excellent
Weldability –Arc	Excellent
Weldability –Resistance	Excellent
Brazability	Excellent
Solderability	Excellent

### Applications:-

- Food Industry Containers
  - Lamp Reflectors
  - Cable Sheathing
- Architectural Flashings
- Chemical Process Plant Equipment.

