1050 O Aluminum Sheet

Applications

Electrical Engineering | Wires & Cables | Cables | Lamps & Related Equipment | Construction | Lighting | Food Industry | Food Industry Containers | Chemical Industry | Chemical Industry Production | Defense | Military Engineering | Explosives

Request more information

Properties

General

Property	Temperature	Value
Density	23.0 °C	2.7 - 2.71 g/cm³

Mechanical

Property	Temperature	Value	Comment
Elastic modulus	23.0 °C	69 - 71 GPa	
Elongation	23.0 °C	39 %	

Hardness, Brinell	23.0 °C	20 [-]	
Plane-Strain Fracture Toughnes	23.0 °C	22 - 35 MPa·√m	Typical for Wrought 1000 Series Aluminium
Poisson's ratio	23.0 °C	0.33 [-]	Typical for Wrought 1000 Series Aluminium
Shear modulus	23.0 °C	25.9 GPa	Typical for Wrought 1000 Series Aluminium
Tensile strength	23.0 °C	65 - 95 MPa	
Yield strength	23.0 °C	26 MPa	
Yield strength Rp0.2	23.0 °C	20 MPa	

Thermal

Property	Temperature	Value	Comment
Coefficient of thermal expansion	23.0 °C	2.4E-5 1/K	
Melting point		650 °C	
Specific heat capacity	23.0 °C	900 J/(kg·K)	
Thermal conductivity	20.0 °C	231 W/(m·K)	unstated value
	23.0 °C	222 - 230 W/(m·K)	unstated value

Electrical

Property	Temperature	Value	Comment
Electrical conductivity	23.0 °C	3.30E+7 - 3.80E+7 S/m	Typical for Wrought 1000 Series Aluminium

Electrical resistivity	23.0 °C	2.82E-8 Ω·m

Chemical properties

Property	Value	Comment
Aluminium	99.5 - 100 %	Balance
Copper	0 - 0.05 %	
Iron	0 - 0.4 %	
Magnesium	0 - 0.05 %	
Manganese	0 - 0.05 %	
Other	0 - 0.03 %	Each
Silicon	0 - 0.25 %	
Titanium	0 - 0.05 %	
Vanadium	0 - 0.05 %	
Zinc	0 - 0.07 %	

Technological properties

Property	
Application areas	Chemical process plant equipment, Food industry containers, Pyrotechnic powder, Architectural flashings, Lamp reflectors, Cable sheathing
Brazing	Excellent
General machinability	Poor
Soldering general	Excellent
Welding	

	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. Gas: Excellent; Arc: Excellent; Resistance: Excellent
Workability	Cold: Excellent