

1100 H18 Aluminum Sheet

Properties

General

Property	Temperature	Value	Comment
Density	23.0 °C	2.7 g/cm³	Typical for Wrought 1000 Series Aluminium

Mechanical

Property	Temperature	Value	Comment
Elastic modulus	23.0 °C	68 - 70 GPa	Typical for Wrought 1000 Series Aluminium
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	150 MPa	

Thermal

Property	Temperature	Value	Comment
Coefficient of thermal expansion	23.0 °C	2.2E-5 - 2.5E-5 1/K	Typical for Wrought 1000 Series Aluminium

Melting point		645 - 660 °C	Typical for Wrought 1000 Series Aluminium
Specific heat capacity	23.0 °C	900 - 963 J/(kg·K)	Typical for Wrought 1000 Series Aluminium
Thermal conductivity	23.0 °C	167 - 244 W/(m·K)	Typical for Wrought 1000 Series Aluminium

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	2.7E-8 - 3E-8 Ω·m	Typical for Wrought 1000 Series Aluminium

Chemical properties

Property	Value
Aluminium	99 %
Copper	0.05 - 0.2 %
Manganese	0.05 %
Zinc	0.1 %

Technological properties

Property	
Brazing	Excellent
Workability	Excellent workability.