

6082 F Aluminum Sheet

Properties

General

Property	Temperature	Value
Density	23.0 °C	2.7 g/cm³

Mechanical

Property	Temperature	Value	Comment
Elastic modulus	23.0 °C	70 GPa	Typical for Wrought 6000 Series Aluminium
Plane-Strain Fracture Toughnes	23.0 °C	22 - 35 MPa·√m	Typical for Wrought 6000 Series Aluminium
Poisson's ratio	23.0 °C	0.33 [-]	Typical for Wrought 6000 Series Aluminium
Shear modulus	23.0 °C	26 - 26.5 GPa	Typical for Wrought 6000 Series Aluminium

Thermal

Property	Temperature	Value	Comment
Coefficient of thermal expansion	23.0 °C	1.6E-5 - 2.4E-5 1/K	Typical for Wrought 6000 Series Aluminium

Melting point		555 - 655 °C	Typical for Wrought 6000 Series Aluminium
Specific heat capacity	23.0 °C	887 - 963 J/(kg·K)	Typical for Wrought 6000 Series Aluminium
Thermal conductivity	23.0 °C	170 - 220 W/(m·K)	Typical for Wrought 6000 Series Aluminium

Electrical

Property	Temperature	Value	Comment
Electrical conductivity	23.0 °C	2.10E+7 - 3.40E+7 S/m	Typical for Wrought 6000 Series Aluminium
Electrical resistivity	23.0 °C	2.9E-8 - 5E-8 Ω·m	Typical for Wrought 6000 Series Aluminium

Chemical properties

Property	Value
Chromium	0.25 %
Copper	0.1 %
Iron	0.5 %
Magnesium	0.6 - 1.2 %
Manganese	0.4 - 1 %
Other	each 0.05, total 0.15, Rest Al
Silicon	0.7 - 1.3 %
Titanium	0.1 %
Zinc	0.2 %

Technological properties

Property

Workability Excellent workability.
