

6082 T651 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	72 GPa	
Elongation	23.0 °C	2.3 %	
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
Tensile strength	23.0 °C	320 MPa	
Yield strength	23.0 °C	270 MPa	

Thermal

Property	Temperature	Value	Comment
	23.0 °C	2.3E-5 1/K	

Coefficient of thermal expansion

Melting point

[580 °C](#)

Specific heat capacity

23.0 °C

[890 J/\(kg·K\)](#)

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
Aluminium	95.2 - 98.3 %
Chromium	0 - 0.25 %
Copper	0 - 0.1 %
Iron	0 - 0.5 %
Magnesium	0.6 - 1.2 %
Manganese	0.4 - 1 %
Other	0 - 0.15 %
Silicon	0.7 - 1.3 %
Titanium	0 - 0.1 %

Zinc

[0 - 0.2 %](#)

Technological properties

Property

Workability

Excellent workability.
