

DIN 3.2315

JIS 6082

ASTM 6082

GB 6082

BS H30

BS Grade AL2

BS 6082

ISO AlSiMgMn

NF A-SGM0.7

UNS A96082



6082 O Aluminum Sheet

Applications

Material Handling

Lifting Equipment

Cranes

Food Industry

Food Industry Containers

Mining Industry

Mining Equipment

Other Mining Equipment

Construction

Building Structures

Civil Engineering

High Stressed Applications

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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	16 %	
Hardness, Brinell	23.0 °C	40 [-]	
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	130 - 150 MPa	
Yield strength	23.0 °C	83 MPa	
Yield strength Rp0.2	23.0 °C	85 MPa	

Thermal

Property	Temperature	Value
Coefficient of thermal expansion	23.0 °C	2.3E-5 1/K
Melting point		555 - 580 °C
Specific heat capacity	23.0 °C	890 J/(kg·K)
Thermal conductivity	23.0 °C	180 - 220 W/(m·K)

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	3.8E-8 Ω·m	

Chemical properties

Property	Value	Comment
Aluminium	95.2 - 98.3 %	Balance
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 %	each 0.05, total 0.15, Rest Al, Total
Silicon	0.7 - 1.3 %	
Titanium	0 - 0.1 %	
Zinc	0 - 0.2 %	

Technological properties

Property	
Application areas	Highly stressed applications, Trusses, Bridges, Cranes, Transport applications, Ore skips, Beer barrels, Milk churns

Brazing Good

**General
machinability** Good

Soldering general Good

Welding 6082 has very good weldability but strength is lowered in the weld zone. When welded to itself, alloy 4043 wire is recommended. If welding 6082 to 7005, then the wire used should be alloy 5356. Gas: Good; Arc: Good; Resistance: Good

Workability Cold: Good
