

1060 H18 Aluminum Strip

Properties

General

Property	Temperature	Value
Density	23.0 °C	2.71 g/cm³

Mechanical

Property	Temperature	Value	Comment
Bending Fatigue Strength	23.0 °C	45 MPa	
Elastic modulus	23.0 °C	69 GPa	
Elongation A50	23.0 °C	1 - 6 %	
Hardness, Brinell	23.0 °C	35 [-]	
Plane-Strain Fracture Toughness	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	110 - 130 MPa	
Yield strength Rp0.2	23.0 °C	85 - 125 MPa	

Thermal

Property	Temperature	Value	Comment
Coefficient of thermal expansion	20.0 °C	2.36E-5 1/K	
	100.0 °C	2.36E-5 1/K	
Melting point		645 - 655 °C	
Specific heat capacity	23.0 °C	900 - 963 J/(kg·K)	Typical for Wrought 1000 Series Aluminium
Thermal conductivity	23.0 °C	230 - 234 W/(m·K)	

Electrical

Property	Temperature	Value
Electrical conductivity	23.0 °C	3.50E+7 - 3.60E+7 S/m
Electrical resistivity	23.0 °C	2.78E-8 - 2.86E-8 Ω·m

Chemical properties

Property	Value
Aluminium	99.6 %
Copper	0.05 %
Iron	0.35 %
Magnesium	0.03 %
Manganese	0.03 %
Other	each 0.03

Silicon	0.25 %
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Titanium	0.03 %
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Vanadium	0.05 %
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Zinc	0.05 %
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Technological properties

Property

Brazing	general: possible with commercial processes and methods
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Corrosion properties	Stress corrosion cracking: no damage during operation and laboratory tests, general: very good, without protection in industrial or seawater atmosphere
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General machinability	General: not suitable (O, H12), poor (H14, H16, H18)
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Workability	general (condition): good (O, H12, H14), acceptable (H16, H18)
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