

1060 O Aluminum Coil

Properties

General

Property	Temperature	Value
Density	23.0 °C	2.7 - 2.71 g/cm³

Mechanical

Property	Temperature	Value	Comment
Bending Fatigue Strength	23.0 °C	20 MPa	
Elastic modulus	23.0 °C	69 GPa	
Elongation	23.0 °C	31 - 43 %	
Elongation A100	23.0 °C	22 %	
Elongation A50	23.0 °C	15 - 43 %	
Fatigue strength	23.0 °C	21 MPa	for 5x10 ⁸ cycles
Hardness, Brinell	23.0 °C	19 - 23 [-]	500 kg load, 10 mm ball
	23.0 °C	22 - 35 MPa·√m	Typical for Wrought 1000 Series Aluminium

Plane-Strain
Fracture
Toughnes

Poisson's ratio	23.0 °C	0.33 [-]	Typical for Wrought 1000 Series Aluminium
Shear modulus	23.0 °C	25 GPa	
Shear strength	23.0 °C	50 MPa	
Tensile strength	23.0 °C	55 - 95 MPa	
Yield strength	23.0 °C	21 MPa	
Yield strength Rp0.2	23.0 °C	15 - 30 MPa	

Thermal

Property	Temperature	Value	Comment
Coefficient of thermal expansion	20.0 °C	2.36E-5 1/K	
	23.0 °C	2.4E-5 1/K	
	100.0 °C	2.36E-5 1/K	
Melting point		645 - 655 °C	
Specific heat capacity	23.0 °C	900 J/(kg·K)	
Thermal conductivity	23.0 °C	230 - 234 W/(m·K)	unstated value
	25.0 °C	234 W/(m·K)	unstated value

Electrical

Property	Temperature	Value	Comment
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Electrical conductivity	23.0 °C	3.50E+7 - 3.60E+7 S/m	Typical/derived value
Electrical resistivity	23.0 °C	2.78E-8 - 2.86E-8 Ω·m	
Specific Electrical conductivity		62 % IACS	Typical value

Chemical properties

Property	Value
Aluminium	99.6 - 100 %
Copper	0 - 0.05 %
Iron	0 - 0.35 %
Magnesium	0 - 0.03 %
Manganese	0 - 0.03 %
Other	each 0.03
Silicon	0 - 0.25 %
Titanium	0 - 0.03 %
Vanadium	0 - 0.05 %
Zinc	0 - 0.05 %

Technological properties

Property	
Brazing	general: possible with commercial processes and methods
Corrosion properties	Stress corrosion cracking: no damage during operation and laboratory tests, general: very good, without protection in industrial or seawater atmosphere
General	

machinability

General: not suitable (O, H12), poor (H14, H16, H18)

Workability

general (condition): good (O, H12, H14), acceptable (H16, H18)
