5754 H26 Aluminum Sheet

General

Property	Temperature	Value
Density	20.0 °C	2.66 - 2.68 g/cm³
	23.0 °C	2.66 g/cm³

Mechanical

Property	Temperature	Value	Comment
Bending angle 90°	23.0 °C	1.5 - 3.5 °/t	
Elastic modulus	-270.0 °C	70 GPa	
	20.0 °C	70 - 70.5 GPa	
	23.0 °C	70.5 GPa	
	50.0 °C	69 GPa	
	100.0 °C	68 GPa	
	150.0 °C	66 GPa	
	200.0 °C	63 GPa	
	250.0 °C	57 GPa	
	300.0 °C	50 GPa	
Elongation	20.0 °C	4 %	
Elongation A100	23.0 °C	4 %	
Elongation A50	20.0 °C	4 - 6 %	

	23.0 °C	4 - 6 %	
Elongation A50, transverse	20.0 °C	4 - 6 %	
Hardness, Brinell	20.0 °C	78 [-]	
	23.0 °C	78 [-]	
Plane-Strain Fracture Toughnes	23.0 °C	22 - 35 MPa·√m	Typical for Wrought 5000 Series Aluminium
Poisson's ratio	20.0 °C	0.33 [-]	
Shear modulus	20.0 °C	26.5 - 27 GPa	
	23.0 °C	26.5 GPa	
Tensile strength	20.0 °C	255 - 305 MPa	
	23.0 °C	255 - 305 MPa	
Tensile strength, transverse	20.0 °C	265 - 305 MPa	
Yield strength Rp0.2	20.0 °C	190 - 225 MPa	
	23.0 °C	190 - 225 MPa	
Yield strength Rp0.2, transverse	20.0 °C	190 MPa	

Thermal

Property	Temperature	Value	Comment
Coefficient of thermal expansion	20.0 °C	2.39E-5 1/K	
	100.0 °C	2.39E-5 1/K	

Max service temperature		150 °C	Typical for Wrought 5000 Series Aluminium
Melting point		610 - 640 °C	
Specific heat capacity	20.0 °C	897 - 963 J/(kg·K)	
Thermal conductivity	20.0 °C	132 - 160 W/(m·K)	
	23.0 °C	140 - 160 W/(m·K)	

Electrical

Property	Temperature	Value
Electrical conductivity	20.0 °C	2.00E+7 - 2.30E+7 S/m
	23.0 °C	2.00E+7 - 2.30E+7 S/m
Electrical resistivity	20.0 °C	4.3E-8 - 5.3E-8 Ω·m
	23.0 °C	4.35E-8 - 5E-8 Ω·m

Chemical properties

Property	Value
Chromium	0.3 %
Copper	0.1 %
Iron	0.4 %
Magnesium	2.6 - 3.6 %
Manganese	0.5 %
Other	Mn + Cr = 0.1 - 0.6, each 0.05, total 0.15, Rest Al
Silicon	0.4 %

Titanium	0.15 %
Zinc	0.2 %

Technological properties

Property	
Anodizing	decorative: gut (EQ: sehr gut), Protective: very good
Brazing	hard brazing (with flux/ without flux): poor / sufficient, friction soldering: acceptable, soft brazing with flux: poor
Corrosion properties	Seawater: very good to good, weathering: very good
Workability	Bending / Spinning (cold): good / acceptable, Impact extrusion (cold): sufficient, Deep drawing / upsetting (Condition) good (O) / good (H12)