

5754-H22 Aluminum

Categories: [Metal](#); [Nonferrous Metal](#); [Aluminum Alloy](#); [5000 Series Aluminum Alloy](#)

Material Notes: Data points with the AA note have been provided by the Aluminum Association, Inc. and are NOT FOR DESIGN.

Composition Notes:

Composition information provided by the Aluminum Association and is not for design.

Key Words: Aluminium 5754; AA5754

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	2.67 g/cc	0.0965 lb/in ³	AA; Typical

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	75	75	
Tensile Strength, Ultimate	245 MPa	35500 psi	
Tensile Strength, Yield	185 MPa	26800 psi	0.2% offset
Elongation at Break	15 %	15 %	
Modulus of Elasticity	70.3 GPa	10200 ksi	AA5154; Average of tension and compression
Poissons Ratio	0.33	0.33	AA5154
Shear Modulus	25.9 GPa	3760 ksi	AA5154
Shear Strength	150 MPa	21800 psi	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00000532 ohm-cm	0.00000532 ohm-cm	AA5154

Thermal Properties	Metric	English	Comments
CTE, linear	23.9 $\mu\text{m/m}\cdot^\circ\text{C}$ @Temperature 20.0 - 100 $^\circ\text{C}$	13.3 $\mu\text{in/in}\cdot^\circ\text{F}$ @Temperature 68.0 - 212 $^\circ\text{F}$	AA5154
Specific Heat Capacity	0.900 J/g $\cdot^\circ\text{C}$	0.215 BTU/lb $\cdot^\circ\text{F}$	AA5154
Thermal Conductivity	125 W/m-K	868 BTU-in/hr-ft $^2\cdot^\circ\text{F}$	AA5154

Component Elements Properties	Metric	English	Comments
Aluminum, Al	93.6 - 97.3 %	93.6 - 97.3 %	As remainder
Chromium, Cr	<= 0.30 %	<= 0.30 %	
Copper, Cu	<= 0.10 %	<= 0.10 %	
Cr + Mn	0.10 - 0.60 %	0.10 - 0.60 %	
Iron, Fe	<= 0.40 %	<= 0.40 %	
Magnesium, Mg	2.6 - 3.6 %	2.6 - 3.6 %	
Manganese, Mn	<= 0.50 %	<= 0.50 %	
Other, each	<= 0.05 %	<= 0.05 %	
Other, total	<= 0.15 %	<= 0.15 %	
Silicon, Si	<= 0.40 %	<= 0.40 %	
Titanium, Ti	<= 0.15 %	<= 0.15 %	
Zinc, Zn	<= 0.20 %	<= 0.20 %	

[References](#) for this datasheet.

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.