

Alpase K100-S™ Aluminum Plate

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

Material Notes: K100-S™ features and benefits include: Dimensional stability, fully weldable, anodizable, high elongation, consistent properties - regardless of size, close flatness and tolerances, superior corrosion resistance, can be nickel plated, smoothest aluminum surface finish.

Applications: Can be painted on both sides, including heat-cured finishes; used for mold cooling and heating plates without impregnation; low pressure molds for shoes, skis, etc.; plate for composite tooling requiring vacuum integrity and dimensional stability.

Sizes: Thickness 0.197 -8 inches; Width 38.25, 48.5, and 60.5 inches; Length 96.5 and - 144.5 inches. Data provided by Alpase.

Key Words: Aluminium

Physical Properties	Metric	English	Comments
Density	<u>2.80</u> g/cc	<u>0.101</u> lb/in ³	
Mechanical Properties	Metric	English	Comments
Hardness, Brinell	60.0 - 65.0	60.0 - 65.0	
Tensile Strength, Ultimate	<u>262</u> MPa	<u>38000</u> psi	Typical
Tensile Strength, Yield	<u>124</u> MPa	<u>18000</u> psi	Typical
Elongation at Break	10.0 - 12.0 %	10.0 - 12.0 %	Typical
Modulus of Elasticity	<u>71.0</u> GPa	<u>10300</u> ksi	
Electrical Properties	Metric	English	Comments
Electrical Resistivity	<u>0.00000590</u> ohm-cm	<u>0.00000590</u> ohm-cm	
Thermal Properties	Metric	English	Comments
CTE, linear	<u>23.8</u> µm/m-°C	<u>13.2</u> µin/in-°F	
	@Temperature 20.0 - 100 °C	@Temperature 68.0 - 212 °F	
Thermal Conductivity	<u>117</u> W/m-K	<u>812</u> BTU-in/hr-ft ² -°F	
Component Elements Properties	Metric	English	Comments
Aluminum, Al	94.0 %	94.0 %	as balance
Copper, Cu	0.10 - 0.20 %	0.10 - 0.20 %	
Iron, Fe	0.10 - 0.40 %	0.10 - 0.40 %	
Magnesium, Mg	4.0 - 4.90 %	4.0 - 4.90 %	
Manganese, Mn	0.40 - 1.0 %	0.40 - 1.0 %	
Silicon, Si	0.000 - 0.40 %	0.000 - 0.40 %	
Zinc, Zn	0.000 - 0.25 %	0.000 - 0.25 %	

This data is for reference only and is not intended for engineer or design. Please consult a Clinton aluminum authorized representative.



Contact Clinton Aluminum & Stainless Steel – 800-826-3370