

## Aleris Weldural Aluminum Alloy, 500 mm Thickness

Category : Metal , Nonferrous Metal , Aluminum Alloy , 2000 Series Aluminum Alloy

### Material Notes:

Sample treatment not specified for property data. Applications include precise mechanical parts with high dimensional stability, machine components, molds, and refrigeration engineering. Good weldability and machinability. Fair corrosion resistance.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Aleris-Weldural-Aluminum-Alloy-500-mm-Thickness.php](http://www.lookpolymers.com/polymer_Aleris-Weldural-Aluminum-Alloy-500-mm-Thickness.php)

Physical Properties	Metric	English	Comments
Density	2.84 g/cc	0.103 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	130	130	
Hardness, Knoop	163	163	Estimated from Brinell
Hardness, Rockwell A	49.4	49.4	Estimated from Brinell
Hardness, Rockwell B	79	79	Estimated from Brinell
Hardness, Vickers	149	149	Estimated from Brinell
Tensile Strength, Ultimate	>= 310 MPa	>= 45000 psi	Minimum
	345 MPa	50000 psi	Typical
Tensile Strength, Yield	>= 230 MPa	>= 33400 psi	Minimum
	@Strain 0.200 %	@Strain 0.200 %	
	295 MPa	42800 psi	Typical
	@Strain 0.200 %	@Strain 0.200 %	
Elongation at Break	>= 0.50 %	>= 0.50 %	Minimum
	1.5 %	1.5 %	Typical
Modulus of Elasticity	73.8 GPa	10700 ksi	
Machinability	70 %	70 %	

Thermal Properties	Metric	English	Comments
CTE, linear	22.5 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	12.5 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 20.0 - 100 $^\circ\text{C}$	@Temperature 68.0 - 212 $^\circ\text{F}$	

Thermal Conductivity Thermal Properties	130 W/m-K Metric	902 BTU-in/hr-ft <sup>2</sup> -°F English	Comments
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Component Elements Properties	Metric	English	Comments
Aluminum, Al	93 %	93 %	
Copper, Cu	5.8 - 6.8 %	5.8 - 6.8 %	
Iron, Fe	<= 0.40 %	<= 0.40 %	
Magnesium, Mg	<= 0.10 %	<= 0.10 %	
Manganese, Mn	0.20 - 0.40 %	0.20 - 0.40 %	
Other, total	<= 0.15 %	<= 0.15 %	
Silicon, Si	<= 0.30 %	<= 0.30 %	
Titanium, Ti	0.020 - 0.10 %	0.020 - 0.10 %	
Zinc, Zn	<= 0.10 %	<= 0.10 %	
Zirconium, Zr	0.10 - 0.25 %	0.10 - 0.25 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00000590 ohm-cm	0.00000590 ohm-cm	

## Contact Songhan Plastic Technology Co.,Ltd.

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