Aleris Weldural Aluminum Alloy, 200 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-200-mm-Thickness.php

Physical Properties	Metric	English	Comments
Density	2.84 g/cc	0.103 lb/in³	

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	>= 370 MPa	>= 53700 psi	Minimum
	440 MPa	63800 psi	Typical
Tensile Strength, Yield	>= 270 MPa @Strain 0.200 %	>= 39200 psi @Strain 0.200 %	Minimum
	335 MPa @Strain 0.200 %	48600 psi @Strain 0.200 %	Typical
Elongation at Break	>= 3.0 %	>= 3.0 %	Minimum
	6.5 %	6.5 %	Typical
Modulus of Elasticity	73.8 GPa	10700 ksi	
Machinability	70 %	70 %	
Shear Strength	259 MPa	37600 psi	Calculated

Thermal Properties	Metric	English	Comments
CTE, linear	22.5 µm/m-°C @Temperature 20.0 -	12.5 µin/in-°F @Temperature 68.0 -	

Thermal Properties	Metric	English	Comments
	100 °C	212 °F	
Thermal Conductivity	130 W/m-K	902 BTU-in/hr-ft²-°F	

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	

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