

Constellium ALPLAN® 6082 Rolled Precision Aluminum Plate, Milled Both Sides

Category : Metal , Nonferrous Metal , Aluminum Alloy , 6000 Series Aluminum Alloy

Material Notes:

Precision plates in ALPLAN® 6082 are milled on both sides and have a very low level of residual stress, thus avoiding excessive deformation during machining. Thanks to its very good dimensional stability and the elimination of surface milling operations, ALPLAN® 6082 plates enable to realize significant cost and time savings in machining, when compared to normal rolled plates. Information provided by manufacturer

Order this product through the following link:

http://www.lookpolymers.com/polymer_Constellium-ALPLAN-6082-Rolled-Precision-Aluminum-Plate-Milled-Both-Sides.php

Physical Properties	Metric	English	Comments
Density	2.70 g/cc	0.0975 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	105	105	
	@Thickness 9.90 - 25.0 mm	@Thickness 0.390 - 0.984 in	
	105	105	
	@Thickness 25.0 - 60.0 mm	@Thickness 0.984 - 2.36 in	
	105	105	
	@Thickness 60.0 - 140 mm	@Thickness 2.36 - 5.51 in	
Tensile Strength	>= 276 MPa	>= 40000 psi	Temper T651; Standard EN 485-2
	@Thickness 100 - 140 mm	@Thickness 3.94 - 5.51 in	
	>= 295 MPa	>= 42800 psi	Temper T651; Standard EN 485-2
	@Thickness 12.5 - 60.0 mm	@Thickness 0.492 - 2.36 in	
	>= 295 MPa	>= 42800 psi	Temper T651; Standard EN 485-2
	@Thickness 60.0 - 100 mm	@Thickness 2.36 - 3.94 in	
	>= 300 MPa	>= 43500 psi	Temper T651; Standard EN 485-2
	@Thickness 9.90 - 12.5 mm	@Thickness 0.390 - 0.492 in	
	350 MPa	50800 psi	Typical Strength

Mechanical Properties	@Thickness 9.90 - 25.0 mm Metric	@Thickness 0.390 - 0.984 in English	Comments
	350 MPa	50800 psi	Typical Strength
	@Thickness 25.0 - 60.0 mm	@Thickness 0.984 - 2.36 in	
	350 MPa	50800 psi	Typical Strength
	@Thickness 60.0 - 140 mm	@Thickness 2.36 - 5.51 in	
Tensile Strength, Yield	>= 240 MPa	>= 34800 psi	Temper T651; Standard EN 485-2
	@Strain 0.200 %, Thickness 12.5 - 60.0 mm	@Strain 0.200 %, Thickness 0.492 - 2.36 in	
	>= 240 MPa	>= 34800 psi	Temper T651; Standard EN 485-2
	@Strain 0.200 %, Thickness 60.0 - 100 mm	@Strain 0.200 %, Thickness 2.36 - 3.94 in	
>= 240 MPa	>= 34800 psi	Temper T651; Standard EN 485-2	
@Strain 0.200 %, Thickness 100 - 140 mm	@Strain 0.200 %, Thickness 3.94 - 5.51 in		
	>= 255 MPa	>= 37000 psi	Temper T651; Standard EN 485-2
	@Strain 0.200 %, Thickness 9.90 - 12.5 mm	@Strain 0.200 %, Thickness 0.390 - 0.492 in	
	305 MPa	44200 psi	Typical Strength
	@Strain 0.200 %, Thickness 9.90 - 25.0 mm	@Strain 0.200 %, Thickness 0.390 - 0.984 in	
	310 MPa	45000 psi	Typical Strength
	@Strain 0.200 %, Thickness 25.0 - 60.0 mm	@Strain 0.200 %, Thickness 0.984 - 2.36 in	
	310 MPa	45000 psi	Typical Strength
	@Strain 0.200 %, Thickness 60.0 - 140 mm	@Strain 0.200 %, Thickness 2.36 - 5.51 in	
Elongation at Break	>= 6.0 %	>= 6.0 %	Temper T651; Standard EN 485-2
	@Thickness 100 - 140 mm	@Thickness 3.94 - 5.51 in	
	>= 7.0 %	>= 7.0 %	Temper T651; Standard EN 485-2
	@Thickness 60.0 - 100 mm	@Thickness 2.36 - 3.94 in	

Mechanical Properties	Metric	English	Comments
	@Thickness 12.5 - 60.0 mm	@Thickness 0.492 - 2.36 in	Temper T651; Standard EN 485-2
	>= 9.0 %	>= 9.0 %	
	@Thickness 9.90 - 12.5 mm	@Thickness 0.390 - 0.492 in	Temper T651; Standard EN 485-2
	11 %	11 %	
	@Thickness 9.90 - 25.0 mm	@Thickness 0.390 - 0.984 in	Typical Elongation
	11 %	11 %	
	@Thickness 25.0 - 60.0 mm	@Thickness 0.984 - 2.36 in	Typical Elongation
	11 %	11 %	
	@Thickness 60.0 - 140 mm	@Thickness 2.36 - 5.51 in	Typical Elongation
Modulus of Elasticity	69.0 GPa	10000 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	23.4 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	13.0 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 20.0 - 100 $^\circ\text{C}$	@Temperature 68.0 - 212 $^\circ\text{F}$	
Thermal Conductivity	150 - 170 W/m-K	1040 - 1180 BTU-in/hr-ft ² - $^\circ\text{F}$	Temper T651

Component Elements Properties	Metric	English	Comments
Aluminum, Al	95.45 - 98.3 %	95.45 - 98.3 %	as balance
Chromium, Cr	<= 0.25 %	<= 0.25 %	
Copper, Cu	<= 0.10 %	<= 0.10 %	
Iron, Fe	<= 0.50 %	<= 0.50 %	
Magnesium, Mg	0.60 - 1.2 %	0.60 - 1.2 %	
Manganese, Mn	0.40 - 1.0 %	0.40 - 1.0 %	
Silicon, Si	0.70 - 1.3 %	0.70 - 1.3 %	
Zinc, Zn	<= 0.20 %	<= 0.20 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00000360 - 0.00000420 ohm-cm	0.00000360 - 0.00000420 ohm-cm	Temper T651

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China