

Constellium ALPLAN® 2017A High-Strength Rolled Precision Aluminum Plate, Milled Both Sides

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

Material Notes:

ALPLAN® 2017A precision plates combine a very good dimensional stability with a high level of mechanical strength and elongation. The outstanding flatness, the low roughness and high quality of the milled surfaces, protected by a plastic film, make surface milling by the end user superfluous. This combination of properties enables significant cost savings in machining. Applications include: reference plates, machine housings and lateral panels, transport tables, jigs. Information provided by manufacturer

Order this product through the following link:

http://www.lookpolymers.com/polymer_Constellium-ALPLAN-2017A-High-Strength-Rolled-Precision-Aluminum-Plate-Milled-Both-Sides.php

Physical Properties	Metric	English	Comments
Density	2.78 g/cc	0.100 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	125	125	
	@Thickness 7.90 - 25.0 mm	@Thickness 0.311 - 0.984 in	
	125	125	
	@Thickness 25.0 - 60.0 mm	@Thickness 0.984 - 2.36 in	
	125	125	
	@Thickness 60.0 - 155 mm	@Thickness 2.36 - 6.10 in	
Tensile Strength	>= 370 MPa	>= 53700 psi	Temper T451; Standard EN 485-2
	@Thickness 60.0 - 80.0 mm	@Thickness 2.36 - 3.15 in	
	>= 385 MPa	>= 55800 psi	Temper T451; Standard EN 485-2
	@Thickness 40.0 - 60.0 mm	@Thickness 1.57 - 2.36 in	
	>= 390 MPa	>= 56600 psi	Temper T451; Standard EN 485-2
	@Thickness 7.90 - 12.5 mm	@Thickness 0.311 - 0.492 in	
	>= 390 MPa	>= 56600 psi	Temper T451; Standard EN 485-2
	@Thickness 12.5 - 40.0 mm	@Thickness 0.492 - 1.57 in	
	415 MPa	60200 psi	

Mechanical Properties	Metric @Thickness 7.90 - 25.0 mm	English @Thickness 0.311 - 0.984 in	Comments Typical Strength; Standard EN 485-2
	415 MPa	60200 psi	Typical Strength; Standard EN 485-2
	@Thickness 25.0 - 60.0 mm	@Thickness 0.984 - 2.36 in	
	415 MPa	60200 psi	Typical Strength; Standard EN 485-2
	@Thickness 60.0 - 155 mm	@Thickness 2.36 - 6.10 in	
	>= 495 MPa	>= 71800 psi	Temper T451; Standard EN 485-2
	@Thickness 80.0 - 115 mm	@Thickness 3.15 - 4.53 in	
Tensile Strength, Yield	>= 240 MPa	>= 34800 psi	Temper T451; Standard EN 485-2
	@Strain 0.200 %, Thickness 60.0 - 80.0 mm	@Strain 0.200 %, Thickness 2.36 - 3.15 in	
	>= 245 MPa	>= 35500 psi	Temper T451; Standard EN 485-2
	@Strain 0.200 %, Thickness 40.0 - 60.0 mm	@Strain 0.200 %, Thickness 1.57 - 2.36 in	
	>= 250 MPa	>= 36300 psi	Temper T451; Standard EN 485-2
	@Strain 0.200 %, Thickness 12.5 - 40.0 mm	@Strain 0.200 %, Thickness 0.492 - 1.57 in	
	>= 260 MPa	>= 37700 psi	Temper T451; Standard EN 485-2
	@Strain 0.200 %, Thickness 7.90 - 12.5 mm	@Strain 0.200 %, Thickness 0.311 - 0.492 in	
	265 MPa	38400 psi	Typical Strength; Standard EN 485-2
	@Strain 0.200 %, Thickness 25.0 - 60.0 mm	@Strain 0.200 %, Thickness 0.984 - 2.36 in	
	265 MPa	38400 psi	Typical Strength; Standard EN 485-2
	@Strain 0.200 %, Thickness 60.0 - 155 mm	@Strain 0.200 %, Thickness 2.36 - 6.10 in	
	270 MPa	39200 psi	Typical Strength; Standard EN 485-2
	@Strain 0.200 %, Thickness 7.90 - 25.0 mm	@Strain 0.200 %, Thickness 0.311 - 0.984 in	
	>= 420 MPa	>= 60900 psi	Temper T451; Standard EN 485-2
	@Strain 0.200 %, Thickness 7.90 - 25.0 mm	@Strain 0.200 %, Thickness 0.311 - 0.984 in	

Mechanical Properties	Thickness 80.0 - 115 Metric mm	@Strain 0.200 %, English Thickness 3.15 - 4.53 in	Comments
Elongation at Break	>= 6.0 % @Thickness 80.0 - 115 mm	>= 6.0 % @Thickness 3.15 - 4.53 in	Temper T451; Standard EN 485-2
	>= 7.0 % @Thickness 60.0 - 80.0 mm	>= 7.0 % @Thickness 2.36 - 3.15 in	Temper T451; Standard EN 485-2
	>= 12 % @Thickness 12.5 - 40.0 mm	>= 12 % @Thickness 0.492 - 1.57 in	Temper T451; Standard EN 485-2
	>= 12 % @Thickness 40.0 - 60.0 mm	>= 12 % @Thickness 1.57 - 2.36 in	Temper T451; Standard EN 485-2
	>= 13 % @Thickness 7.90 - 12.5 mm	>= 13 % @Thickness 0.311 - 0.492 in	Temper T451; Standard EN 485-2
	17 % @Thickness 60.0 - 155 mm	17 % @Thickness 2.36 - 6.10 in	Typical Elongation
	20 % @Thickness 7.90 - 25.0 mm	20 % @Thickness 0.311 - 0.984 in	Typical Elongation
	20 % @Thickness 25.0 - 60.0 mm	20 % @Thickness 0.984 - 2.36 in	Typical Elongation
Modulus of Elasticity	72.0 GPa	10400 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	23.6 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature 20.0 - 100 $^\circ\text{C}$	13.1 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature 68.0 - 212 $^\circ\text{F}$	
Thermal Conductivity	125 - 140 W/m-K	868 - 972 BTU-in/hr-ft ² - $^\circ\text{F}$	Temper T651

Component Elements Properties	Metric	English	Comments
Aluminum, Al	91.4 - 95.5 %	91.4 - 95.5 %	as balance
Chromium, Cr	<= 0.10 %	<= 0.10 %	

Component Elements Properties	Metric	English	Comments
Copper, Cu	3.5 - 4.5 %	3.5 - 4.5 %	
Iron, Fe	<= 0.70 %	<= 0.70 %	
Magnesium, Mg	0.40 - 1.0 %	0.40 - 1.0 %	
Manganese, Mn	0.40 - 1.0 %	0.40 - 1.0 %	
Silicon, Si	0.20 - 0.80 %	0.20 - 0.80 %	
Zinc, Zn	<= 0.25 %	<= 0.25 %	
Zr+Ti	<= 0.25 %	<= 0.25 %	

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