Carpenter Pyromet® CTX-3 Superalloy, Heat Treatment for Brazing Cycles over 982°C

Category : Metal , Superalloy , Iron Base

Material Notes:

Data provided by Carpenter Technology Corporation.Pyromet® alloy CTX-3 is a high strength, precipitation hardenable superalloy which exhibits a low CTE over a broad temperature range. This alloy also possess high hot hardness and good thermal fatigue resistance. It is weldable, brazable, and can be chromium plated. This material offers significant improvement in notched stress-rupture strength over Pyromet alloy CTX-1. Retained hot-cold work is not required for good stress rupture properties and is not affected by stress orientation.Pyromet® is a registered trademark of Carpenter Technology Corporation.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Carpenter-Pyromet-CTX-3-Superalloy-Heat-Treatment-for-Brazing-Cycles-over-982C.php

Physical Properties	Metric	English	Comments
Density	8.28 g/cc	0.299 lb/in³	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	1160 MPa	168000 psi	
Tensile Strength, Yield	760 MPa @Strain 0.200 %	110000 psi @Strain 0.200 %	
Elongation at Break	9.0 %	9.0 %	In 50 mm
Reduction of Area	14 %	14 %	
Modulus of Elasticity	159.9 GPa	23190 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	7.50 µm/m-°C @Temperature 25.0 - 416 °C	4.17 µin/in-°F @Temperature 77.0 - 781 °F	
	7.70 µm/m-°C @Temperature 25.0 - 260 °C	4.28 µin/in-°F @Temperature 77.0 - 500 °F	

Component Elements Properties	Metric	English	Comments
Aluminum, Al	<= 0.25 %	<= 0.25 %	
Boron, B	<= 0.012 %	<= 0.012 %	
Carbon, C	<= 0.050 %	<= 0.050 %	

Component Elements Properties	Metric	English	Comments
Cobalt, Co	13 - 15 %	13 - 15 %	
Copper, Cu	<= 0.50 %	<= 0.50 %	
Iron, Fe	39 %	39 %	as remainder
Manganese, Mn	<= 0.50 %	<= 0.50 %	
Nb + Ta	4.5 - 5.5 %	4.5 - 5.5 %	
Nickel, Ni	37 - 39 %	37 - 39 %	
Niobium, Nb (Columbium, Cb)	<= 5.5 %	<= 5.5 %	
Phosphorous, P	<= 0.015 %	<= 0.015 %	
Silicon, Si	<= 0.50 %	<= 0.50 %	
Sulfur, S	<= 0.015 %	<= 0.015 %	
Tantalum, Ta	<= 5.5 %	<= 5.5 %	
Titanium, Ti	1.25 - 1.75 %	1.25 - 1.75 %	

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