

Weartech International WT-20 Cobalt Hardfacing & Wear Resistant Alloy

Category : Metal , Nonferrous Metal , Cobalt Alloy

Material Notes:

Applications: marine engine valves, control valves for petrochemicals, steel mill rolls, homogenizer valve components
Information provided by Weartech International

Order this product through the following link:

http://www.lookpolymers.com/polymer_Weartech-International-WT-20-Cobalt-Hardfacing-Wear-Resistant-Alloy.php

Physical Properties	Metric	English	Comments
Density	8.73 g/cc	0.315 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	50 - 60	50 - 60	
Hardness, Vickers	250	250	
	@Treatment Temp. 760 °C	@Treatment Temp. 1400 °F	
	360	360	
	@Treatment Temp. 649 °C	@Treatment Temp. 1200 °F	
	430	430	
	@Treatment Temp. 538 °C	@Treatment Temp. 1000 °F	
	520	520	
	@Treatment Temp. 427 °C	@Treatment Temp. 800 °F	
	780	780	
	@Treatment Temp. 25.0 °C	@Treatment Temp. 77.0 °F	
Tensile Strength	414 MPa	60000 psi	As Cast
Elongation at Yield	0.00 - 0.50 %	0.00 - 0.50 %	
Charpy Impact	4.07 J	3.00 ft-lb	As Cast

Thermal Properties	Metric	English	Comments
CTE, linear	13.7 µm/m-°C	7.60 µin/in-°F	
Specific Heat Capacity	0.389 J/g-°C	0.0930 BTU/lb-°F	

Melting Point Thermal Properties	$\leq 1260^{\circ}\text{C}$ Metric	$\leq 2300^{\circ}\text{F}$ English	Comments
Liquidus	1260 $^{\circ}\text{C}$	2300 $^{\circ}\text{F}$	

Component Elements Properties	Metric	English	Comments
Carbon, C	2.5 %	2.5 %	
Chromium, Cr	32 %	32 %	
Cobalt, Co	41.5 - 47.5 %	41.5 - 47.5 %	
Iron, Fe	≤ 3.0 %	≤ 3.0 %	
Nickel, Ni	≤ 3.0 %	≤ 3.0 %	
Silicon, Si	≤ 1.0 %	≤ 1.0 %	
Tungsten, W	17 %	17 %	

Descriptive Properties	Value	Comments
Corrosion Resistance, Hydrochloric Acid Conc. 5.65%	>20 mils/year	RT
	>400 mils/year	Boiling
Corrosion Resistance, Nitric Acid Conc. 25-65%	>20 mils/year	RT
	>400 mils/year	Boiling
Corrosion Resistance, Sulfuric Acid Conc. 5-10%	>400 mils/year	150 $^{\circ}\text{F}$
	>50 mils/year	RT
Relative Wear Performance	Cold Abrasion	Excellent
	Corrosion	Excellent
	Erosion	Excellent
	Hot Abrasion	Excellent
	Impact	Not Recommended
	Metal to Metal	Excellent

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