

Kennametal Stellite Stellite® 31 PM with P/M Processing; heat treated at 93°C (200°F) and water quenched

Category : Metal , Nonferrous Metal , Cobalt Alloy , Superalloy

Material Notes:

Typical applications include, miscellaneous wear parts. Data provided by the manufacturer, Deloro Stellite Inc. Product of former Deloro Stellite Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Kennametal-Stellite-Stellite-31-PM-with-PM-Processing-heat-treated-at-93C-200F-and-water-quenched.php

Physical Properties	Metric	English	Comments
Density	8.45 g/cc	0.305 lb/in ³	P/M (98%)
	8.61 g/cc	0.311 lb/in ³	Theoretical

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	828 MPa	120000 psi	
	414 MPa	60000 psi	
	@Temperature 760 °C	@Temperature 1400 °F	
	614 MPa	89100 psi	
	@Temperature 649 °C	@Temperature 1200 °F	
	676 MPa	98000 psi	
	@Temperature 538 °C	@Temperature 1000 °F	
Tensile Strength, Yield	497 MPa	72100 psi	
	@Strain 0.200 %	@Strain 0.200 %	
	290 MPa	42100 psi	
	@Strain 0.200 %, Temperature 649 °C	@Strain 0.200 %, Temperature 1200 °F	
	311 MPa	45100 psi	
	@Strain 0.200 %, Temperature 760 °C	@Strain 0.200 %, Temperature 1400 °F	
	331 MPa	48000 psi	
	@Strain 0.200 %, Temperature 538 °C	@Strain 0.200 %, Temperature 1000 °F	
Elongation at Break			in 25.4 mm

Mechanical Properties	Metric	English	Comments
	13 % @Temperature 649 Â°C	13 % @Temperature 1200 Â°F	in 25.4 mm
	14 % @Temperature 538 Â°C	14 % @Temperature 1000 Â°F	in 25.4 mm
	21 % @Temperature 760 Â°C	21 % @Temperature 1400 Â°F	in 25.4 mm

Thermal Properties	Metric	English	Comments
CTE, linear	14.1 Âµm/m-Â°C @Temperature 21.0 - 316 Â°C	7.83 Âµin/in-Â°F @Temperature 69.8 - 601 Â°F	
	14.5 Âµm/m-Â°C @Temperature 21.0 - 427 Â°C	8.06 Âµin/in-Â°F @Temperature 69.8 - 801 Â°F	
	15.1 Âµm/m-Â°C @Temperature 21.0 - 538 Â°C	8.39 Âµin/in-Â°F @Temperature 69.8 - 1000 Â°F	
	15.7 Âµm/m-Â°C @Temperature 21.1 - 649 Â°C	8.72 Âµin/in-Â°F @Temperature 70.0 - 1200 Â°F	
	16.5 Âµm/m-Â°C @Temperature 21.1 - 816 Â°C	9.17 Âµin/in-Â°F @Temperature 70.0 - 1500 Â°F	
	16.6 Âµm/m-Â°C @Temperature 21.1 - 871 Â°C	9.22 Âµin/in-Â°F @Temperature 70.0 - 1600 Â°F	

Component Elements Properties	Metric	English	Comments
Carbon, C	0.50 %	0.50 %	
Chromium, Cr	25.5 %	25.5 %	
Cobalt, Co	50 %	50 %	As remainder
Iron, Fe	<= 2.0 %	<= 2.0 %	
Manganese, Mn	<= 1.0 %	<= 1.0 %	

Component Elements Properties	Metric	English	Comments
Other	<= 2.0 %	<= 2.0 %	
Phosphorous, P	<= 0.040 %	<= 0.040 %	
Silicon, Si	<= 1.0 %	<= 1.0 %	
Sulfur, S	<= 0.040 %	<= 0.040 %	
Tungsten, W	7.5 %	7.5 %	

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