

## Kennametal Stellite Stellite® 190 PM with P/M Processing

Category : Metal , Nonferrous Metal , Cobalt Alloy , Superalloy

### Material Notes:

Adhesive wear test data: P/M 0.32. Applications: vane plugs, fuel metering pins, spacer bushings, ball (bearings) blanks, race (bearings) blanks, diesel engine exhaust, fluid valve seats, saw cutter inserts, 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-190-PM-with-PM-Processing.php](http://www.lookpolymers.com/polymer_Kennametal-Stellite-Stellite-190-PM-with-PM-Processing.php)

Physical Properties	Metric	English	Comments
Density	8.50 g/cc	0.307 lb/in <sup>3</sup>	P/M (98%)

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	596	596	Converted from Rockwell C hardness.
	312	312	Converted from Rockwell C hardness
	@Temperature 760 Â°C	@Temperature 1400 Â°F	
	427	427	Converted from Rockwell C hardness
@Temperature 649 Â°C	@Temperature 1200 Â°F		
Hardness, Knoop	533	533	Converted from Rockwell C hardness
	@Temperature 538 Â°C	@Temperature 1000 Â°F	
	720	720	Converted from Rockwell C hardness.
	372	372	Converted from Rockwell C hardness
@Temperature 760 Â°C	@Temperature 1400 Â°F		
Hardness, Rockwell A	513	513	Converted from Rockwell C hardness
	@Temperature 649 Â°C	@Temperature 1200 Â°F	
	643	643	Converted from Rockwell C hardness
	@Temperature 538 Â°C	@Temperature 1000 Â°F	
80	80	Converted from Rockwell C hardness. Beyond normal Rockwell B range, for comparison only.	
Hardness, Rockwell B	107	107	

Mechanical Properties	Metric @Temperature 760 Â°C	English @Temperature 1400 Â°F	Comments
Hardness, Rockwell C	58	58	Hot hardness.
	34 @Temperature 760 Â°C	34 @Temperature 1400 Â°F	Hot hardness.
	46 @Temperature 649 Â°C	46 @Temperature 1200 Â°F	Hot hardness.
	54 @Temperature 538 Â°C	54 @Temperature 1000 Â°F	Hot hardness.
Hardness, Vickers	649	649	Converted from Rockwell C hardness.
	326 @Temperature 760 Â°C	326 @Temperature 1400 Â°F	Converted from Rockwell C hardness
	454 @Temperature 649 Â°C	454 @Temperature 1200 Â°F	Converted from Rockwell C hardness
	575 @Temperature 538 Â°C	575 @Temperature 1000 Â°F	Converted from Rockwell C hardness
Tensile Strength, Ultimate	621 MPa	90100 psi	
	518 MPa @Temperature 538 Â°C	75100 psi @Temperature 1000 Â°F	
	518 MPa @Temperature 649 Â°C	75100 psi @Temperature 1200 Â°F	
	518 MPa @Temperature 760 Â°C	75100 psi @Temperature 1400 Â°F	
Elongation at Break	<= 1.0 %	<= 1.0 %	in 25.4 mm
	<= 1.0 % @Temperature 538 Â°C	<= 1.0 % @Temperature 1000 Â°F	in 25.4 mm
	<= 1.0 %	<= 1.0 %	

Mechanical Properties	Metric	English	Comments
	@Temperature 649 Â°C	@Temperature 1200 Â°F	in 25.4 mm
	<= 1.0 %	<= 1.0 %	
	@Temperature 760 Â°C	@Temperature 1400 Â°F	in 25.4 mm

Component Elements Properties	Metric	English	Comments
Boron, B	1.0 %	1.0 %	
Carbon, C	3.1 %	3.1 %	
Chromium, Cr	26 %	26 %	
Cobalt, Co	42.9 %	42.9 %	As remainder
Iron, Fe	<= 5.0 %	<= 5.0 %	
Manganese, Mn	<= 1.0 %	<= 1.0 %	
Molybdenum, Mo	<= 1.0 %	<= 1.0 %	
Nickel, Ni	<= 3.0 %	<= 3.0 %	
Other	<= 2.0 %	<= 2.0 %	
Silicon, Si	<= 1.0 %	<= 1.0 %	
Tungsten, W	14 %	14 %	

## Contact Songhan Plastic Technology Co.,Ltd.

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