Crucible Steel Maxel® 2000 Stainless Steel

Category : Metal , Ferrous Metal , Stainless Steel

Material Notes:

Maxel 2000 is a free-machining stainless holder block steel which is based on the nominal analysis of Type 414L rather than Type 420. It is supplied pre-hardened to about HRC 37. Due to its unique chemistry, Maxel 2000 exhibits a very uniform hardness, free from hard spots and free from carbide segregation. Because Maxel 2000 has a low carbon content and contains nickel, it offers better corrosion resistance than typical Type 420F stainless holder block, and also better than Type 420 stainless mold steels. Although Maxel 2000 is resulfurized for easier machining, its low carbon content makes it extremely tough so it resists chipping and cracking much better than Type 420F holder block. Its low carbon content also reduces the risk of welding cracks because there is no formation of highhardness untempered martensite which commonly forms in weldments of the higher carbon grades such as Type 420 which has 0.30 %C. Due to its lower overall alloy content, Maxel 2000 also has higher thermal conductivity than Type 420F stainless holder block. This increases the effectiveness of cooling water and allows for shorter cycle times and improved productivity.Information provided by Crucible Specialty Metals.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Crucible-Steel-Maxel-2000-Stainless-Steel.php

Physical Properties	Metric	English	Comments
Density	7.75 g/cc	0.280 lb/in³	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	37	37	Pre-hardened
Tensile Strength, Ultimate	1170 - 1240 MPa	170000 - 180000 psi	
Tensile Strength, Yield	965 - 1030 MPa @Strain 0.200 %	140000 - 150000 psi @Strain 0.200 %	
Elongation at Break	15 - 17 %	15 - 17 %	
Reduction of Area	50 - 60 %	50 - 60 %	
Modulus of Elasticity	200 GPa	29000 ksi	
Charpy Impact	9.00 J	6.64 ft-lb	Transverse
	23.0 J	17.0 ft-lb	Longitudinal

Thermal Properties	Metric	English	Comments
CTE, linear	10.4 µm/m-°C @Temperature 0.000 - 100 °C	5.78 µin/in-°F @Temperature 32.0 - 212 °F	
	11.0 µm/m-°C	6.11 µin/in-°F	

Thermal Properties	Metric	English	Comments
	@Temperature 0.000 - 315 °C	@Temperature 32.0 - 599 °F	
Thermal Conductivity	24.9 W/m-K @Temperature 100 °C	173 BTU-in/hr-ft²-°F @Temperature 212 °F	

Component Elements Properties	Metric	English	Comments
Carbon, C	0.040 %	0.040 %	
Chromium, Cr	12.5 %	12.5 %	
Iron, Fe	84.21 %	84.21 %	As Remainder
Molybdenum, Mo	0.30 %	0.30 %	
Nickel, Ni	2.75 %	2.75 %	
Sulfur, S	0.20 %	0.20 %	

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