Crucible Steel CPM® Nu-Die® EZ Tool Steel

Category : Metal , Ferrous Metal , Tool Steel

Material Notes:

CRUCIBLE CPM Nu-Die EZ is a new, patented die and mold steel designed for service as die casting dies and plastic injection molds. It is supplied in the prehardened condition, and is easily machined using conventional chip-making methods.This unique die and mold steel provides:Freedom from Distortion in Heat TreatmentFreedom from Worry over Heat Treatment QualityFreedom from EDM DamageCPM Nu-Die EZ is based upon the chemical composition of AISI H13 hot work steel to which sulfur has been added to provide machinability in the prehardened condition. It is manufactured by the Crucible Particle Metallurgy (CPM) Process which permits the addition of sulfur without detrimental effects on tool performance. Unlike the sulfides which form in conventionally-produced, resulfurized H13, the sulfides in this steel are small and uniformly distributed.Information provided by Crucible Industries

Order this product through the following link:
http://www.lookpolymers.com/polymer_Crucible-Steel-CPM-Nu-Die-EZ-Tool-Steel.php

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

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	45	45	
Modulus of Elasticity	207 GPa	30000 ksi	
Charpy Impact	12.2 J	9.00 ft-lb	V-notch

Thermal Properties	Metric	English	Comments
CTE, linear	11.0 µm/m-°C @Temperature 21.1 - 93.3 °C	6.10 µin/in-°F @Temperature 70.0 - 200 °F	
	11.5 µm/m-°C @Temperature 21.1 - 204 °C	6.40 µin/in-°F @Temperature 70.0 - 400 °F	
	12.2 µm/m-°C @Temperature 21.1 - 427 °C	6.80 µin/in-°F @Temperature 70.0 - 800 °F	
	12.6 µm/m-°C @Temperature 21.1 - 538 °C	7.00 µin/in-°F @Temperature 70.0 - 1000 °F	
	13.1 µm/m-°C @Temperature 21.1 - 649 °C	7.30 µin/in-°F @Temperature 70.0 - 1200 °F	

Thermal Properties	Metric	English	Comments
Thermal Conductivity	2.19 W/m-K @Temperature 93.3 °C	15.2 BTU-in/hr-ft²-°F @Temperature 200 °F	
	2.31 W/m-K @Temperature 316 °C	16.0 BTU-in/hr-ft²-°F @Temperature 600 °F	

Component Elements Properties	Metric	English	Comments
Carbon, C	0.36 %	0.36 %	
Chromium, Cr	5.5 %	5.5 %	
Iron, Fe	90.2 %	90.2 %	as balance
Manganese, Mn	0.35 %	0.35 %	
Molybdenum, Mo	1.6 %	1.6 %	
Silicon, Si	1.0 %	1.0 %	
Sulfur, S	0.17 %	0.17 %	
Vanadium, V	0.85 %	0.85 %	

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