

EDRO P1FM #31 Free Machining Holder Steel

Category : Metal , Ferrous Metal , Alloy Steel

Material Notes:

EDRO #31 P1-FM is a free machining low alloy steel supplied prehardened to 262-321 HB. P1-FM is characterized by excellent machinability, uniform and consistent hardness in all dimensions, good resistance to indentation (compressive strength), excellent ductility, excellent flatness, dimensionally stable, smooth as rolled surfaces, weldable, and excellent thermal conductivity. P1-FM is an improved grade designed specifically for plastic and rubber molding applications. Chemical composition and thermal treatments provide physical properties and microstructures designed to provide reduced mold maintenance costs, safe weld repair, dimensional stability, and lower mold production costs due to less cutting tool wear and increased cutting speeds. Applications: plastic and rubber molds, plastic mold bases, constructional parts, plastic extrusion. Information provided by EDRO

Order this product through the following link:

http://www.lookpolymers.com/polymer_EDRO-P1FM-31-Free-Machining-Holder-Steel.php

Physical Properties	Metric	English	Comments
Density	7.81 g/cc	0.282 lb/in ³	Prehardened to 293 HB
	@Temperature 199 °C	@Temperature 390 °F	
	7.86 g/cc	0.284 lb/in ³	Prehardened to 293 HB
	@Temperature 20.0 °C	@Temperature 68.0 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	293	293	
Tensile Strength, Ultimate	945 MPa	137000 psi	Longitudinal Tests from 3" rolled plate at 293 HB
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Tensile Strength, Yield	800 MPa	116000 psi	Longitudinal Tests from 3" rolled plate at 293 HB
	@Strain 0.200 %, Temperature 20.0 °C	@Strain 0.200 %, Temperature 68.0 °F	
Elongation at Yield	18 %	18 %	in 2"
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Reduction of Area	58 %	58 %	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Modulus of Elasticity	186 GPa	27000 ksi	
	@Temperature 199 °C	@Temperature 390 °F	
	207 GPa	30000 ksi	
	@Temperature 20.0 °C	@Temperature 68.0 °F	

Mechanical Properties	Metric	English	Comments
	47.5 J @Temperature 20.0 °C	35.0 ft-lb @Temperature 68.0 °F	Longitudinal Charpy V-notch Tests from a 3" rolled plate at 293 HB
	74.6 J @Temperature 300 °C	55.0 ft-lb @Temperature 572 °F	Longitudinal Charpy V-notch Tests from a 3" rolled plate at 293 HB

Thermal Properties	Metric	English	Comments
CTE, linear	11.0 $\mu\text{m}/\text{m}\cdot\text{°C}$	6.10 $\mu\text{in}/\text{in}\cdot\text{°F}$	
	@Temperature 20.0 - 199 °C	@Temperature 68.0 - 390 °F	

Descriptive Properties	Value	Comments
Color Code	Blue Red Stripe	

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