

## Assab Steels 718HH Plastic Mold Material

Category : Metal , Ferrous Metal , Alloy Steel , Chrome-moly Steel

### Material Notes:

IMPAX SUPREME is a premium-quality vacuum-degassed Cr-Ni-Mo-alloyed steel which is supplied in the hardened and tempered condition. IMPAX SUPREME is manufactured to consistently high quality standards with a very low sulfur content, giving a steel with the following characteristics: Good polishing and photo etching properties Good machinability High purity and good homogeneity Uniform hardness Applications: Injection moulds for thermoplastics Extrusion dies for thermoplastics Blow moulds Forming tools, press-brake dies (possibly flame hardened or nitrided) Structural components, shafts. AISI P20 modified, W.-Nr. 1.2738

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Assab-Steels-718HH-Plastic-Mold-Material.php](http://www.lookpolymers.com/polymer_Assab-Steels-718HH-Plastic-Mold-Material.php)

Physical Properties	Metric	English	Comments
Density	7.81 g/cc	0.282 lb/in <sup>3</sup>	
	7.75 g/cc	0.280 lb/in <sup>3</sup>	
	@Temperature 200 °C	@Temperature 392 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	325	325	tempering at 600°C
	340 - 380	340 - 380	hardness supplied.
	450	450	tempering at 400°C
	500	500	tempering at 200°C
Tensile Strength, Ultimate	979 MPa	142000 psi	R <sub>m</sub> . Bar. 310 HB
	@Thickness 25.4 mm, Temperature 200 °C	@Thickness 1.00 in, Temperature 392 °F	
Tensile Strength, Yield	1080 MPa	156000 psi	R <sub>p</sub> . Bar. 310 HB
	@Diameter 25.4 mm	@Diameter 1.00 in	
Tensile Strength, Yield	827 MPa	120000 psi	R <sub>p0.2</sub> . bar. Hardness: 310 HB
	@Diameter 25.4 mm	@Diameter 1.00 in	
Modulus of Elasticity	986 MPa	143000 psi	R <sub>p0.2</sub> . bar. 310 HB
	@Diameter 25.4 mm	@Diameter 1.00 in	
Modulus of Elasticity	205 GPa	29700 ksi	
	200 GPa	29000 ksi	
	@Temperature 200 °C	@Temperature 392 °F	

Mechanical Properties	Metric	English	Comments
Impact Test	30.0 J	22.1 ft-lb	310 HB
	@Diameter 25.4 mm, Temperature 20.0 °C	@Diameter 1.00 in, Temperature 68.0 °F	
	130 J	95.9 ft-lb	310 HB
	@Diameter 25.4 mm, Temperature 200 °C	@Diameter 1.00 in, Temperature 392 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	12.7 µm/m-°C	7.06 µin/in-°F	
	@Temperature 20.0 - 200 °C	@Temperature 68.0 - 392 °F	
Specific Heat Capacity	0.460 J/g-°C	0.110 BTU/lb-°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Thermal Conductivity	29.1 W/m-K	202 BTU-in/hr-ft <sup>2</sup> -°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
	29.5 W/m-K	205 BTU-in/hr-ft <sup>2</sup> -°F	
	@Temperature 200 °C	@Temperature 392 °F	

Component Elements Properties	Metric	English	Comments
Carbon, C	0.37 %	0.37 %	
Chromium, Cr	2.0 %	2.0 %	
Iron, Fe	94.722 %	94.722 %	
Manganese, Mn	1.4 %	1.4 %	
Molybdenum, Mo	0.20 %	0.20 %	
Nickel, Ni	1.0 %	1.0 %	
Silicon, Si	0.30 %	0.30 %	
Sulfur, S	0.0080 %	0.0080 %	

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215, Fengxian District, Shanghai City, China