

Bohler-Uddeholm UDDEHOLM VANADIS 60 Powder Metallurgically Produced Tool Steel

Category : Metal , Ferrous Metal , Alloy Steel , Tool Steel

Material Notes:

Uddeholm Vanadis 60 is a high alloyed powder metallurgical high speed steel suitable for very demanding cold work applications and for cutting tools. The high carbon and alloying content, Co, Mo, W and V, gives an extremely high compressive strength, 69 HRC, combined with a very good abrasive wear resistance. For cutting tool applications Uddeholm Vanadis 60 offers a unique combination of high wear resistance, hot hardness and good toughness compared to all other HSS. The P/M process ensures a good machinability and grindability together with a good dimensional stability during heat treatment. Vanadis 60 is characterized by: High wear resistance Maximum compressive strength Good through hardening properties Good toughness Good dimensional stability on heat treatment Very good temper resistance Applications: Uddeholm Vanadis 60 is a high alloyed high performance PM high speed steel with an addition of cobalt. Uddeholm Vanadis 60 is particularly suitable for cold work tooling where highest wear resistance and highest compressive strength are required at the same time.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Bohler-Uddeholm-UDDEHOLM-VANADIS-60-Powder-Metallurgically-Produced-Tool-Steel.php

Physical Properties	Metric	English	Comments
Density	7.92 g/cc	0.286 lb/in ³	soft annealed
	7.78 g/cc	0.281 lb/in ³	soft annealed
	@Temperature 600.0 °C	@Temperature 1112 °F	
Density	7.83 g/cc	0.283 lb/in ³	soft annealed
	@Temperature 399 °C	@Temperature 750 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	<= 340	<= 340	Soft annealed
Hardness, Rockwell C	62 - 69	62 - 69	austenitizing 1760-2156°F, temper 3 x 1hr at 1040°F
Modulus of Elasticity	248 GPa	36000 ksi	(hardened and tempered)
	138 GPa	20000 ksi	hardened and tempered
	@Temperature 600.0 °C	@Temperature 1112 °F	
Modulus of Elasticity	221 GPa	32000 ksi	hardened and tempered
	@Temperature 399 °C	@Temperature 750 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	10.6 µm/m-°C	5.90 µin/in-°F	hardened and tempered

Thermal Properties	@Temperature 399 °C Metric	@Temperature 750 °F English	Comments
	11.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	6.10 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	hardened and tempered
	@Temperature 600.0 °C	@Temperature 1112 °F	
Specific Heat Capacity	0.418 J/g-°C	0.100 BTU/lb-°F	hardened and tempered
	@Temperature 20.0 °C	@Temperature 68.0 °F	
	0.502 J/g-°C	0.120 BTU/lb-°F	hardened and tempered
	@Temperature 399 °C	@Temperature 750 °F	
	0.586 J/g-°C	0.140 BTU/lb-°F	hardened and tempered
	@Temperature 600.0 °C	@Temperature 1112 °F	
Thermal Conductivity	21.0 W/m-K	146 BTU-in/hr-ft ² -°F	hardened and tempered
	@Temperature 20.0 °C	@Temperature 68.0 °F	
	24.0 W/m-K	167 BTU-in/hr-ft ² -°F	hardened and tempered
	@Temperature 600.0 °C	@Temperature 1112 °F	
	25.0 W/m-K	174 BTU-in/hr-ft ² -°F	hardened and tempered
	@Temperature 399 °C	@Temperature 750 °F	

Component Elements Properties	Metric	English	Comments
Carbon, C	2.3 %	2.3 %	
Chromium, Cr	4.2 %	4.2 %	
Cobalt, Co	10.5 %	10.5 %	
Molybdenum, Mo	7.0 %	7.0 %	
Tungsten, W	6.5 %	6.5 %	
Vanadium, V	6.5 %	6.5 %	

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