

## Bohler-Uddeholm BÖHLER W360 ISOBLOC® Hot Work Tool Steel

Category : Metal , Ferrous Metal , Tool Steel , Hot Work Steel

### Material Notes:

BÖHLER W360 ISOBLOC was developed as a tool steel for dies and punches in warm and hot forging. The steel can be used for a variety of applications where hardness and toughness are required. Properties  
 High hardness (recommended in use: 52 – 57 HRC)  
 Exceptional toughness  
 High temper resistance  
 Good thermal conductivity  
 Can be cooled with water  
 Homogeneous microstructure  
 Applications and uses  
 Dies and punches in warm and hot forging  
 Tooling for high speed presses  
 Toughness-critical cold work applications  
 Extrusion tooling, e.g. dies  
 Core pins and inserts in die-casting dies  
 Specific applications in the plastic processing sector

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Bohler-Uddeholm-BHLER-W360-ISOBLOC-Hot-Work-Tool-Steel.php](http://www.lookpolymers.com/polymer_Bohler-Uddeholm-BHLER-W360-ISOBLOC-Hot-Work-Tool-Steel.php)

Physical Properties	Metric	English	Comments
Density	7.60 g/cc	0.275 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	52 - 57	52 - 57	typical range of application

Thermal Properties	Metric	English	Comments
CTE, linear	11.1 µm/m-°C	6.17 µin/in-°F	
	@Temperature 20.0 - 100 °C	@Temperature 68.0 - 212 °F	
	11.5 µm/m-°C	6.39 µin/in-°F	
	@Temperature 20.0 - 200 °C	@Temperature 68.0 - 392 °F	
	11.9 µm/m-°C	6.61 µin/in-°F	
	@Temperature 20.0 - 300 °C	@Temperature 68.0 - 572 °F	
	12.3 µm/m-°C	6.83 µin/in-°F	
	@Temperature 20.0 - 400 °C	@Temperature 68.0 - 752 °F	
12.8 µm/m-°C	7.11 µin/in-°F		
@Temperature 20.0 - 500 °C	@Temperature 68.0 - 932 °F		
13.2 µm/m-°C	7.33 µin/in-°F		
@Temperature 20.0 - 600 °C	@Temperature 68.0 - 1110 °F		
13.6 µm/m-°C	7.56 µin/in-°F		

Thermal Properties	Metric	English	Comments
	@ Temperature 20.0 - 700 °C	@ Temperature 68.0 - 1290 °F	
Thermal Conductivity	31.5 W/m-K	219 BTU-in/hr-ft <sup>2</sup> -°F	
	@Temperature 100 °C	@Temperature 212 °F	
	31.9 W/m-K	221 BTU-in/hr-ft <sup>2</sup> -°F	
	@Temperature 500 °C	@Temperature 932 °F	
	32.3 W/m-K	224 BTU-in/hr-ft <sup>2</sup> -°F	
	@Temperature 200 °C	@Temperature 392 °F	
	32.5 W/m-K	226 BTU-in/hr-ft <sup>2</sup> -°F	
	@Temperature 400 °C	@Temperature 752 °F	
	32.6 W/m-K	226 BTU-in/hr-ft <sup>2</sup> -°F	
	@Temperature 300 °C	@Temperature 572 °F	

Component Elements Properties	Metric	English	Comments
Carbon, C	0.50 %	0.50 %	
Chromium, Cr	4.5 %	4.5 %	
Iron, Fe	91 %	91 %	As Balance
Manganese, Mn	0.25 %	0.25 %	
Molybdenum, Mo	3.0 %	3.0 %	
Silicon, Si	0.20 %	0.20 %	
Vanadium, V	0.55 %	0.55 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.0000590 ohm-cm	0.0000590 ohm-cm	

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