

## Latrobe DuraTech<sup>®</sup> M48 Powder Metal High Speed Steel (ASTM M48)

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

### Material Notes:

DuraTech M48 super high speed steel is a high-performance high speed steel which exhibits superior hot (red) hardness compared to T15 and M42 high speed steels, and wear resistance comparable to that of T15. DuraTech M48 can be heat treated to 70 HRC, and the high cobalt content enables the steel to maintain high hardness at elevated service temperatures. Vanadium carbides provide the high wear resistance, and the fine grain size, small carbides, and superior cleanliness of the powder metallurgy (PM) microstructure maximize the toughness of the steel. DuraTech M48 offers improved cutting tool life compared to the M-series high speed steels. Typical applications include form tools, broaches, milling cutters, hobs, and any special cutting tool where high hot hardness is required. Information Provided by Timken Latrobe Steel. Timken sold Latrobe in December 2006. They are now Latrobe Specialty Steels Co.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Latrobe-DuraTech-M48-Powder-Metal-High-Speed-Steel-ASTM-M48.php](http://www.lookpolymers.com/polymer_Latrobe-DuraTech-M48-Powder-Metal-High-Speed-Steel-ASTM-M48.php)

Physical Properties	Metric	English	Comments
Specific Gravity	8.26 g/cc	8.26 g/cc	
Density	8.25 g/cc	0.298 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	65.5	65.5	Oil Quenched from 1199 <sup>°</sup> C, 3 minutes
	67	67	Oil Quenched from 1177 <sup>°</sup> C, 5 minutes
	68	68	Oil Quenched from 1149 <sup>°</sup> C, 10 minutes
Modulus of Elasticity	214 GPa	31000 ksi	
Machinability	10 - 15 %	10 - 15 %	1% Carbon Steel

Component Elements Properties	Metric	English	Comments
Carbon, C	1.55 %	1.55 %	
Chromium, Cr	4.0 %	4.0 %	
Cobalt, Co	9.0 %	9.0 %	
Iron, Fe	66.5 %	66.5 %	
Manganese, Mn	0.20 %	0.20 %	
Molybdenum, Mo	5.25 %	5.25 %	
Silicon, Si	0.40 %	0.40 %	

Component Elements Properties	Metric	English	Comments
Vanadium, V	3.1 %	3.1 %	

Chemical Properties	Metric	English	Comments
Critical Temperature	835 Â°C	1540 Â°F	Ac1

## 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