

## Latrobe LSS™ L6 Tool Steel (ASTM L6)

Category : Metal , Ferrous Metal , Alloy Steel , Carbon Steel , High Carbon Steel , Tool Steel , Oil-Hardening Steel

### Material Notes:

TLS L6 tool steel is a versatile, oil-hardening tool steel that is characterized by very good toughness. TLS L6 tool steel is suitable for use as tools, dies, and machine parts which require a good combination of hardness and toughness. The relatively high nickel content results in an alloy with greater impact toughness compared to the other common oil-hardening grades. Typical applications for TLS L6 tool steel include punches and dies, cold forming tools, and coining dies. 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-LSS-L6-Tool-Steel-ASTM-L6.php](http://www.lookpolymers.com/polymer_Latrobe-LSS-L6-Tool-Steel-ASTM-L6.php)

Physical Properties	Metric	English	Comments
Specific Gravity	7.86 g/cc	7.86 g/cc	
Density	7.86 g/cc	0.284 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	62	62	Air Cooled from 760°C, 30 minutes
	63.5	63.5	Air Cooled from 788°C, 30 minutes
	63.5	63.5	Air Cooled from 843°C, 30 minutes
Modulus of Elasticity	207 GPa	30000 ksi	
Machinability	75 %	75 %	1% Carbon Steel
Charpy Impact	1.36 J	1.00 ft-lb	V-Notch; Oil Quenched from 816°C for 4 hours; 150°C Temper Temperature
	4.75 J	3.50 ft-lb	V-Notch; Oil Quenched from 816°C for 4 hours; 205°C Temper Temperature
	6.78 J	5.00 ft-lb	V-Notch; Oil Quenched from 816°C for 4 hours; 316°C Temper Temperature

Thermal Properties	Metric	English	Comments
CTE, linear	11.81 µm/m-°C	6.561 µin/in-°F	
	@Temperature 21.0 - 149 °C	@Temperature 69.8 - 300 °F	
	14.36 µm/m-°C	7.978 µin/in-°F	
	@Temperature 21.0 - 538 °C	@Temperature 69.8 - 1000 °F	

Thermal Properties	Metric	English	Comments
Thermal Conductivity	34.0 W/m-K	740 BTU-in/hr-ft <sup>2</sup> -°F	

Component Elements Properties	Metric	English	Comments
Carbon, C	0.70 %	0.70 %	
Chromium, Cr	0.70 %	0.70 %	
Iron, Fe	96.35 %	96.35 %	
Manganese, Mn	0.60 %	0.60 %	
Nickel, Ni	1.4 %	1.4 %	
Silicon, Si	0.25 %	0.25 %	

Chemical Properties	Metric	English	Comments
Critical Temperature	719 °C	1330 °F	Ac1

## Contact Songhan Plastic Technology Co.,Ltd.

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