Latrobe Staminal™ Shock Resisting Die Steel

Category : Metal , Ferrous Metal , Alloy Steel , Tool Steel , Air-Hardening Steel , Oil-Hardening Steel

Material Notes:

Staminal is an air or oil hardening die steel containing a large percentage of nickel combined with a proper balance of other alloying elements for deep hardening and extreme toughness. For tools, dies, or other parts which operate in the range of Rockwell C 56-58 and where maximum toughness is required, Staminal is suggested. It is well suited for applications where extreme pressures are involved, such as cams, gear, other machinery parts, and master hobs. Non-deforming characteristics make it a good selection for intricate shear blades, forming dies, hobs for cold hobbing, swaging dies, punches and stamps. It has also been found to give long life for mandrels for both hot and cold work. Staminal possesses good non-deforming characteristics and is relatively easy to heat treat because of its wide hardening range. However, Staminal will be found somewhat more difficult to machine than many other steels because of its high annealed hardness.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-Staminal-Shock-Resisting-Die-Steel.php

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	36	36	Oil Quenched from 871°C; 649°C Temper Temperature
	45	45	Oil Quenched from 871°C; 538°C Temper Temperature
	49	49	Oil Quenched from 871°C; 427°C Temper Temperature
	54	54	Oil Quenched from 871°C; 316°C Temper Temperature
	56	56	Oil Quenched from 871°C; 204°C Temper Temperature
Tensile Strength, Ultimate	1310 MPa	190000 psi	Oil Quenched from 871°C; 649°C Temper Temperature
	1520 MPa	220000 psi	Oil Quenched from 871°C; 538°C Temper Temperature
	1690 MPa	245000 psi	Oil Quenched from 871°C; 427°C Temper Temperature
	1860 MPa	270000 psi	Oil Quenched from 871°C; 316°C Temper Temperature
	1970 MPa	285000 psi	Oil Quenched from 871°C; 204°C Temper Temperature
Tensile Strength, Yield	1140 MPa	165000 psi	Oil Quenched from 871°C; 649°C Temper Temperature
	1345 MPa	195100 psi	Oil Quenched from 871°C; 538°C Temper Temperature
	1515 MPa	219700 psi	Oil Quenched from 871°C; 427°C Temper Temperature

Mechanical Properties	Metric	English	Comments
	1670 MPa	242000 psi	Oil Quenched from 871°C; 204°C Temper Temperature
Elongation at Break	5.0 %	5.0 %	in 2"; Oil Quenched from 871°C; 204°C Temper Temperature
	11 %	11 %	in 2"; Oil Quenched from 871°C; 316°C Temper Temperature
	12 %	12 %	in 2"; Oil Quenched from 871°C; 427°C Temper Temperature
	13 %	13 %	in 2"; Oil Quenched from 871°C; 538°C Temper Temperature
	15 %	15 %	in 2"; Oil Quenched from 871°C; 649°C Temper Temperature
Reduction of Area	20 %	20 %	Oil Quenched from 871°C; 204°C Temper Temperature
	25 %	25 %	Oil Quenched from 871°C; 316°C Temper Temperature
	27 %	27 %	Oil Quenched from 871°C; 427°C Temper Temperature
	28 %	28 %	Oil Quenched from 871°C; 538°C Temper Temperature
	35 %	35 %	Oil Quenched from 871°C; 649°C Temper Temperature
Charpy Impact	13.0 J	9.59 ft-lb	103°C Temper Temperature
	24.0 J	17.7 ft-lb	

Component Elements Properties	Metric	English	Comments
Carbon, C	0.55 %	0.55 %	
Chromium, Cr	0.40 %	0.40 %	
Iron, Fe	93.87 %	93.87 %	
Manganese, Mn	0.90 %	0.90 %	
Molybdenum, Mo	0.45 %	0.45 %	
Nickel, Ni	2.7 %	2.7 %	
Silicon, Si	1.0 %	1.0 %	
Vanadium, V	0.13 %	0.13 %	

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