Latrobe LSSâ„¢ 135M Nitriding Steel (ASTM A355 Class A)

Category : Metal , Ferrous Metal , Alloy Steel , Carbon Steel , Medium Carbon Steel

Material Notes:

TLS 135M Nitriding Steel is a high-aluminum and chromium modification of AISI 4140 alloy steel. The aluminum addition promotes the formation of aluminum nitride compounds when tools manufactured from this steel are surface nitrided. The result is a nitrided surface which exhibits high hardness and good resistance to abrasion and wear, along with a strong and tough inner core in the piece. TLS 135M is supplied in the prehardened condition at a hardness of approximately 28 to 32 Rockwell C. In this condition, tools can be machined or ground, and then nitrided. Additional heat treatment is normally not required. Typical applications for TLS 135M steel include injection and extrusion feed screws, machine parts, pump parts, bushings, shafts, pinions, crankshafts, cams, camshafts, gears, valve sleeves, chuck jaws, dowel pins, and thread guides.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-135M-Nitriding-Steel-ASTM-A355-Class-A.php

Physical Properties	Metric	English	Comments
Specific Gravity	7.86 g/cc	7.86 g/cc	
Density	7.86 g/cc	0.284 lb/inÂ³	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	22	22	5 inches; Mid-Radius
	27	27	3 inches; Mid-Radius
	30	30	5 inches; Surface
	30	30	3 inches; Surface
	30	30	Up to 1.5 inches; Un-Nitrided
Tensile Strength, Ultimate	772 MPa	112000 psi	5 inches; Un-Nitrided
	862 MPa	125000 psi	3 inches; Un-Nitrided
	965 MPa	140000 psi	Up to 1.5 inches; Un-Nitrided
Tensile Strength, Yield	655 MPa	95000 psi	5 inches; Un-Nitrided
	689 MPa	99900 psi	3 inches; Un-Nitrided
	827 MPa	120000 psi	Up to 1.5 inches; Un-Nitrided
Modulus of Elasticity	207 GPa	30000 ksi	
Machinability	70 - 75 %	70 - 75 %	1% Carbon Steel

Thermal Properties	Metric	English	Comments
CTE, linear	11.68 Âµm/m-Â°C @Temperature 0.000 - 500 Â°C	6.489 Âµin/in-Â°F @Temperature 32.0 - 932 Â°F	
Thermal Conductivity	51.9 W/m-K	360 BTU-in/hr-ftÂ²-Â°F	

Component Elements Properties	Metric	English	Comments
Aluminum, Al	1.15 %	1.15 %	
Carbon, C	0.40 %	0.40 %	
Chromium, Cr	1.6 %	1.6 %	
Iron, Fe	95.6 %	95.6 %	
Manganese, Mn	0.60 %	0.60 %	
Molybdenum, Mo	0.35 %	0.35 %	
Silicon, Si	0.30 %	0.30 %	

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