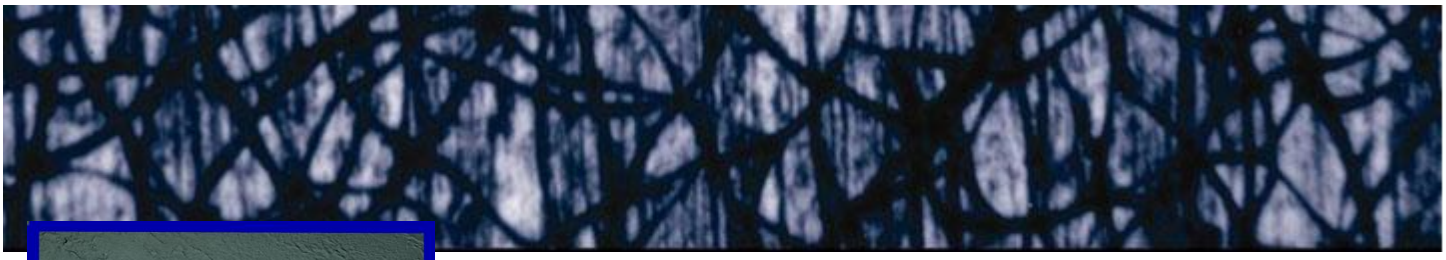

TM 133(Nickel Boron) is a state of the art coating providing a very low coefficient of friction. It works well in wear applications without reduction of hardness experienced with other coatings. TM 133 is an engineered surface deposit, which is readily applied to a variety of substrates that produce an extremely slick, abrasion & wear resistant surface. This coating has a columnar structure with a nodular surface that provides it with superior abrasion resistance and superior resistance to fretting and galling. TM 133 has three times the wear resistance of a Mid-Phosphorus Electroless Nickel. TM 133 has a lower coefficient of friction than coatings containing PTFE. Unlike PTFE, which will start to decompose at 600° F, TM 133 will maintain its integrity up to the melting point of the deposit.

USER BENEFITS

Uniform Coating
Pleasing Light Gray Color
Excellent Release Properties
Very Hard Deposit
Extreme Abrasion Resistance
Can Be Applied to any Metal

PROPERTIES	TYPICAL VALUE
Hardness (VHN)	
As Plated	63-65 RC
Heat Treated	Up to 74 RC
Chemical Composition	
Nickel	89-95%
Thallium	2.5-6.0%
Boron	2.5-5.0%
Melting Range	1922-2102 F/ 1050-1150 C
Thickness Controllability	.00001-.010”
Wear Resistance	
(Falex Test per ASTM D 2714)	Weight Loss in grams: .0002”
Corrosion Resistance (.001” Deposit ASTM-117)	200 Hours (Can be improved considerably with an undercoat of TM 103)

This deposit can be used as a replacement for Hard Chrome, Carbide and even Titanium Nitride

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