PT-MAT™ P-NM50S.

General Information :

PT-MAT™ P-NM50S is a metal powder where very hard particles of spherical cast tungsten carbide (SFTC) are mixed with a NiCrBSi alloy matrix specially designed for applications on non-magnetic austenitic stainless steel used in the petroleum industry..
PT-MAT™ P-NM50S can be applied through PTA welding (Plasma Transfer Arc)or Laser cladding.

Applications :

PT-MAT™ P-NM50S is applied through plasma powder surfacing or laser cladding on low alloy to high alloy steel.
Typical applications are equipment submitted to abrasive wear with moderate impact and corrosion.
Very efficient coating for mining applications, industrial fans and downhole drilling equipment (non mag drill collars, stabilizers, radial bearing, kick rings etc...).
This material is also ideal for repair work of previously hard faced equipments..

Composition (weight)

50 % (Ni,Cr,B,Si matrix powder)
50% PT-MAT™ -SFTC (Spherical cast tungsten carbide)

Physical properties:

Hardness:	
(Ni,Cr,B,Si matrix powder)	30-35 HRC
PT-MAT™ -SFTC:	2650-3000 $HV_{0,1}$
Melting point:	
(Ni,Cr,B,Si matrix powder)	< 1200°C
PT-MAT™ -SFTC	2860°C
Density:	
(Ni,Cr,B,Si matrix powder)	8.4 g/cm³
PT-MAT™ -SFTC	16.4 g/cm³
Apparent density (Hall):	6.9 g/cm^3
Flow rate (Hall) :	9-10 seconds

Typical sizing available : 45-150 microns (+325-100 mesh) or 53-180 microns (+270-80 mesh).

Packaging:

10 lbs plastic bottles.
Other packaging available on request (plastic or metal pails).