

POLYTUNG NiBWC

 Open Arc Welding/ Gas Metal Arc
Welding Wire

February, 2024

PRODUCT OVERVIEW

POLYTUNG NiBWC—is a nickel silicon boron matrix system, with tungsten carbide particles. This combination produces a superior microstructure when welded and has excellent fine particle erosion, corrosion, and toughness. The low heat input when welding POLYTUNG NiBWC helps to reduce the amount of tungsten carbide particles going to solution. Deposits are not machinable and can not be flame cut.

TYPICAL DEPOSIT CHARACTERISTICS:

⇒ Abrasion Resistance	Excellent
⇒ Impact Resistance:	Moderate—high
⇒ Deposit Layers:	3 passes
⇒ Deposit Cross Checks:	Yes
⇒ Magnetic:	Yes
⇒ Hot Wear Hardness	900° F
⇒ Machineability:	No

SPECIFICATION:

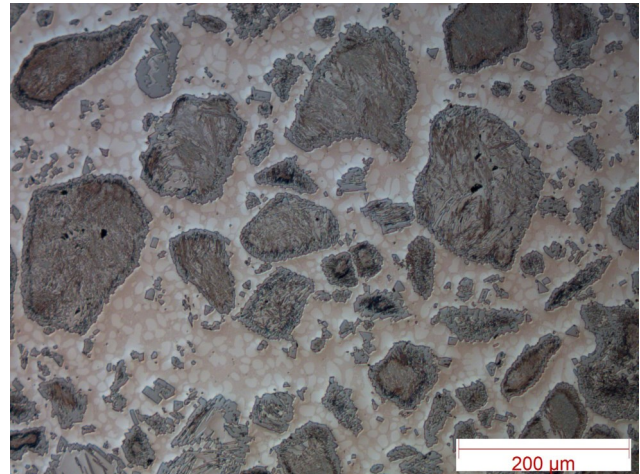
Tungsten Carbides in a Nickel Boron Silicon Matrix

APPLICATION

- ⇒ Dredge cutter teeth & heads
- ⇒ Rotary bucket dredge teeth
- ⇒ Drill bits and drill stabilizers
- ⇒ Mud pumps
- ⇒ Pipe and elbow ID slurry type application
- ⇒ Filter screens

NOMINAL CHEMICAL COMPOSITION (wt%)

W	Si	B	Ni
38-45	2.2	1.0	Bal



RECOMMENDED WELDING PARAMETERS:

The properties listed are typical and not to be construed as guaranteed values. Actual properties may vary depending on customer operating conditions.

Diameter	Current	Voltage	Amperage	Shielding Gas	Wire Extension	Position
.062" (1.6mm)	DCEP	16-20	90-150	100% Ar (Recommended), 75% Ar/25% CO ₂	3/4"	Flat
.093" (2.4mm)	DCEP	17-21	175-250	100% Ar (Recommended), 75% Ar/25% CO ₂ , Open Arc	1"	Flat

STANDARD:

Diameter

- .062" (1.6mm)
- .093" (2.4mm)