

## PRODUCT OVERVIEW

**POLYWEAR 50**—is a nickel chrome silicon boron continuous cast rod that form complex borides and carbides in a nickel matrix. POLYWEAR 50 is designed for a wide range of applications, such as metal to metal sliding, and a combination of wear, corrosion, oxidation or galling. Deposits maintain a high level of hardness up to 1200°F. POLYWEAR 50 yields smooth deposits and can be applied to low and medium carbon steels, cast iron and stainless steels.

### TYPICAL DEPOSIT CHARACTERISTICS:

⇒ Abrasion Resistance	Good
⇒ Impact Resistance:	Good
⇒ Corrosion Resistance:	Good
⇒ Hardness-single layer:	45-56 HRC
⇒ Deposit Cross Checks:	No
⇒ Magnetic:	No
⇒ Machineability	Grinding
⇒ Hot Hardness	Up to 1200°F

\*Two layers on carbon steel

### SPECIFICATION:

AWS 5.21 ERCNiCr-B

## APPLICATION

- ⇒ Shaft sleeves
- ⇒ Bushings
- ⇒ Valves
- ⇒ Pump parts
- ⇒ Dies
- ⇒ Oil extraction screws
- ⇒ Centrifuges

## NOMINAL CHEMICAL COMPOSITION (wt%)

C	Cr	Si	B	Ni
0.6	13.0	3.7	2.5	Bal

## RECOMMENDED GTAW PARAMETERS:

Diameter	Current	Voltage	Amperage	Shielding Gas
.156" (4.0mm)	DCEN	18-22	120-160	Argon
.187" (4.8mm)	DCEN	18-22	160-190	Argon

## RECOMMENDED WELDING PARAMETERS:

Diameter	Tip Size	Flame	Position
.156" (4.0mm)	4	Neutral-1X	Flat
.187" (4.8mm)	5	Neutral-1X	Flat

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