

PRODUCT OVERVIEW

PolyStel 12 has excellent resistance to many forms of chemical and mechanical degradation over a wide temperature range. PolyStel 12 attributes are its anti-galling properties, abrasion, corrosion resistance, and oxidation resistant up to its melting range. It can be applied to all weldable steels, including stainless steels.

APPLICATION

Typical applications include saw teeth, shaft sleeves, bushings, burner tips, and turbine blades.

SIZES AND PACKAGING

Diameter	Packaging
.093" (2.4mm)	11 lb (5.0kg)
.125" (3.2mm)	11 lb (5.0kg)
.157" (4.0mm)	11 lb (5.0kg)

PolyStel 12 CHEMISTRY, PERFORMANCE, AND SPECIFICATIONS (typical weight %)

C	Mn	Si	Cr	Fe	Mo	Ni	W	Co
1.6	0.8	1.0	29	3.0	1.0	3.0	8.5	Bal

Hardness

- ⇒ Room Temperature: 68°F (20°C) Up to 50HRC
- ⇒ Work Hardened: Up to 58 HRC

Elevated Temperatures

- ⇒ 750°F (400°C): Up to 44HRC
- ⇒ 1110°F (600°C): Up to 40HRC
- ⇒ 1475°F (800°C): Up to 37HRC
- ⇒ 1620°F (900°C): Up to 35 HRC

Specifications

- ⇒ AWS 5.13 ECoCr-B

RECOMMENDED WELDING PARAMETERS

Diameter	Recommended Current	Amperage	Position
.093" (2.4mm)	AC or DC Reverse (+)	65-85	Flat, horizontal
.125" (3.17mm)	AC or DC Reverse (+)	80-110	Flat, horizontal
.156" (4.0mm)	AC or DC Reverse (+)	100-130	Flat, horizontal

The properties listed are typical and not to be construed as guaranteed values. Actual properties may vary depending on customer operating conditions. Polymet makes no warranties of merchantability and fitness for a particular purpose, except as expressly stated in Polymet's terms and conditions.