

PRODUCT OVERVIEW

POLYSEL 6 (Cobalt Alloy 6) - a cobalt-based electrode, provides excellent resistance to many forms of chemical and mechanical degradation over a wide temperature range. POLYSEL 6 coated electrodes exhibit outstanding self-mated anti-galling properties. This is why it is used for a wide range of hardfacing applications in valve seats and bearing areas. It can be applied to all weldable steels, including stainless.

APPLICATION

Typical applications include valve seats, bearing areas, tong bits, and food processing equipment. For moderate abrasion resistance combined with resistance to corrosion, erosion, and thermal shock.

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)
.187" (4.8mm)	11 lb (5.0kg)

POLYSEL 6 CHEMISTRY, PERFORMANCE, AND SPECIFICATIONS

Material Chemistry (wt%)

C	Mn	Si	Cr	Fe	Mo	Ni	W	Co
1.2	0.8	1.0	30	2.0	0.5	3.0	6.0	Bal.

Hardness

- ⇒ Room Temperature: 68°F (20°C) Up to 45HRC
- ⇒ Work Hardened: Up to 55 HRC

Elevated Temperatures

- ⇒ 750°F (400°C): Up to 32HRC
- ⇒ 1110°F (600°C): Up to 28HRC
- ⇒ 1475°F (800°C): Up to 22HRC
- ⇒ 1620°F (900°C): Up to 20HRC

Specifications

- ⇒ AWS 5.13 ECoCr-A

RECOMMENDED WELDING PARAMETERS

Diameter	Recommended Current	Amperage	Position
.093" (2.4mm)	AC or DC Reverse (+)	65-85	Flat, horizontal
.125" (3.2mm)	AC or DC Reverse (+)	80-110	Flat, horizontal
.157" (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.