

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.

DEPOSIT CHARACTERISTICS

- ⇒ Abrasion Resistance: Good
- ⇒ Impact Resistance: Good
- ⇒ Corrosion Resistance: Good
- ⇒ Hardness: HRC 43-49
- ⇒ Deposit Layers: 2 Layers
- ⇒ Crossing Checking: *Possible
- ⇒ Hot Wear Hardness: Good
- ⇒ Machineability: Carbide Tools

* Proper control of preheat, interpass temperature, and slow cooling required to establish crack free deposits.

PolyStel 12 CHEMISTRY, PERFORMANCE, AND SPECIFICATIONS

This alloy conforms to AWS 5.21 ERCoCr-B chemical composition requirements.

Specifications

- ⇒ AWS 5.21 ERCoCr-B
- ⇒ UNS R30012

RECOMMENDED WELDING PARAMETERS

| Diameter | Current | Voltage | Amperage |
|---------------|---------|---------|----------|
| .062" (1.6mm) | DC- | 20-24 | 80-100 |
| .125" (3.2mm) | DC- | - | 115-135 |

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.

SIZES AND PACKAGING

| | | | |
|-----------------|------------------|-----------------|------------------|
| Diameter | Packaging | Diameter | Packaging |
| .035" (.09mm) | Various | .093" (2.4mm) | 11 lb (5kg) |
| .045" (1.2mm) | Various | .125" (3.2mm) | 11 lb (5kg) |
| .062" (1.6mm) | 11 lb (5.0kg) | .156" (4.0mm) | 11 lb (5kg) |
| .080" (2.03mm) | 11 lb (5.0kg) | .187" (4.8mm) | 11 lb (5kg) |
| | | .250" (6.4mm) | 11 lb (5kg) |