

PRODUCT OVERVIEW

PolyStel 1M—a cobalt-based metal cored wire, produces a deposit that exhibits excellent abrasion and corrosion resistance for applications where severe abrasion and moderate impact are encountered. PolyStel 1M contains a higher percentage of carbides than deposits than PolyStel 6 and 12. This contributes to the exceptional wear resistance and superior hardness of this alloy. PolyStel 1M derives its high temperature hardness and matrix toughness from the addition of tungsten. Due to the high sensitivity to check cracking, when welding this alloy, proper precautions should be made to minimize cooling stresses. This alloy can be applied to any weldable steel, including all grades of stainless steel.

TYPICAL DEPOSIT CHARACTERISTICS:

| | |
|-------------------------|----------|
| ⇒ Abrasion Resistance | High |
| ⇒ Impact Resistance: | Moderate |
| ⇒ Corrosion Resistance: | Good |
| ⇒ Deposit Layers: | 2 max |
| ⇒ Deposit Cross Checks: | * No |
| ⇒ Magnetic: | No |
| ⇒ Hot Wear Hardness | Good |
| ⇒ Machineability: | Grind |

* With proper preheat and slow cooling

SPECIFICATION:

AWS A5.21

ERCCoCr-C

APPLICATION

- ⇒ Hydropulper disc
- ⇒ Mixer blades & rotors
- ⇒ Conveyor screws
- ⇒ Pump sleeves

NOMINAL CHEMICAL COMPOSITION (wt%)

This alloy conforms to AWS A5.21-2011 ERCCoCr-C chemical composition requirements

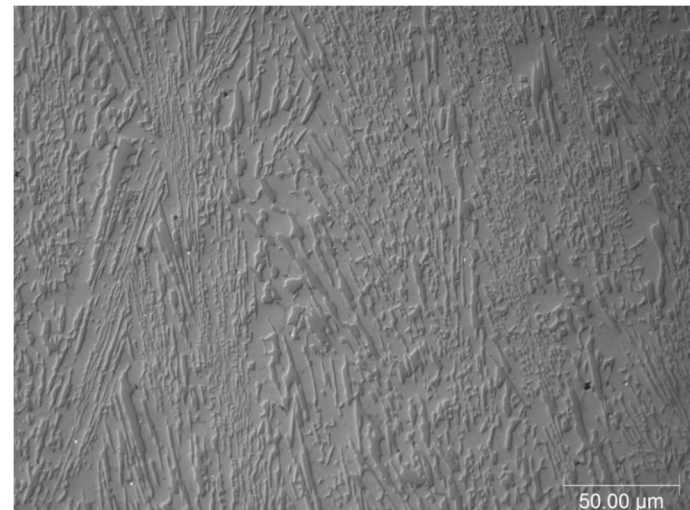
RECOMMENDED WELDING PARAMETERS:

| Diameter | Current | Voltage | Amperage | Shielding Gas | Wire Extension | Position |
|---------------|---------|---------|----------|---------------|----------------|----------|
| .045" (1.2mm) | DCEP | 25-27 | 180-200 | Argon | 1/2" - 3/4" | Flat |
| .062" (1.6mm) | DCEP | 26-28 | 280-300 | Argon | 1/2" - 3/4" | Flat |

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

STANDARD SIZES & PACKAGING:

| Diameter | Packaging |
|---------------|-----------|
| .045" (1.2mm) | 33# Spool |
| .062" (1.6mm) | 33# Spool |



500X microstructure