

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 is encountered. POLYSTEL 1M contains a higher percentage of carbides than deposits from POLYSTEL 6 and 12 which contribute 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 A5.21-2011 ERCCoCr-C

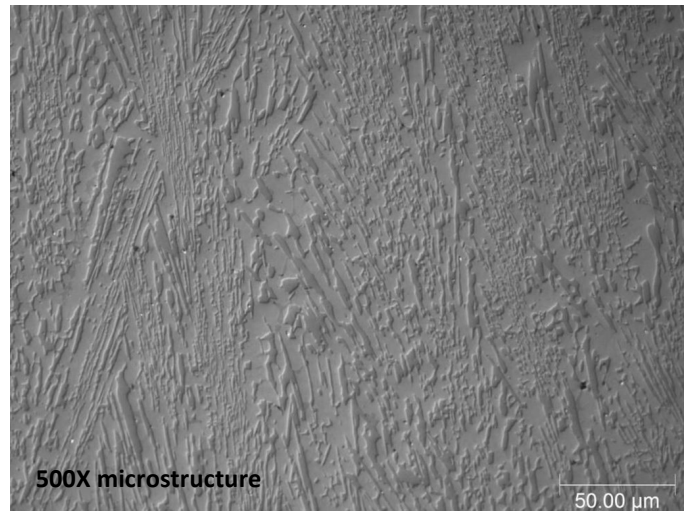
APPLICATION

- ⇒ 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	Part Number
.045" (1.2mm)	33# Spool	001M045LWS00
.062" (1.6mm)	33# Spool	001M062LWS00