

STOODY® CP2000

Open Arc Welding Wire

Stoody CP2000 is a specially formulated chromium carbide alloy designed to produce a high concentration of uniformly distributed small primary chromium carbides in an austenitic matrix. The optimized formulation results in superior weldability for a broad range of single and multiple layer applications. The high concentration of small primary carbides greatly improves wear resistance and toughness over conventional chromium carbide alloys. It can be applied to carbon, low alloy and manganese steels. In special applications such as coal pulverizer rebuilding, it can be applied to cast iron pulverizer rolls. The deposits can not be machined or forged and can be used in hot wear applications up to 900°F (482°C).

TYPICAL DEPOSIT CHARACTERISTICS

Hardness, HRC	58 – 64
Impact Resistance	Moderate
Surface Cross Checking	Yes
Machinability	No
Magnetic	
On Carbon Steel	Slightly
On Manganese Steel	No
Hot Wear Applications	Up to 900°F (482°C)

ALLOY TYPE

Primary Chromium Carbides in an Austenitic Matrix

TYPICAL APPLICATIONS

- ID pipe & elbow cladding
- Wear plates
- Gyratory mantles
- Multiple layer build up on coal & cement pulverizer rolls & grinding rings.
- Sugar mill rolls

OPERATIONAL CHARACTERISTICS/WELDING PARAMETERS (DCEP)

Diameter, in (mm)	0.045" (1.2 mm)	1/16" (1.6 mm)
Current DCEP, amp	175 – 225	200 – 250
Voltage (volts)	22 – 26	24 – 28
Wire Extension, in (mm)	1/2 – 3/4 (13 – 19)	3/4 – 1 (19 – 25)
Shielding Gas	None	None

Diameter, in (mm)	5/64" (2.0 mm)	3/32" (2.4)
Current DCEP, amp	250 – 300	300 – 500
Voltage (volts)	25 – 28	25 – 28
Wire Extension, in (mm)	1 1/4 – 1 1/2 (32 – 38)	1 – 1 1/2 (25 – 38)
Shielding Gas	None	None

Diameter, in (mm)	7/64" (2.8 mm)	1/8" (3.2 mm)
Current DCEP, amp	400 – 650	450 – 650
Voltage (volts)	28 – 32	29 – 33
Wire Extension, in (mm)	1 1/4 – 1 1/2 (32 – 38)	1 1/4 – 1 1/2 (32 – 38)
Shielding Gas	None	None

STANDARD SIZES & PACKAGING

Diameter	Packaging	Part #
0.045" (1.2 mm)	25 lb (11.3 kg) Plastic Spool, LLW	11931200
0.045" (1.2 mm)	33 lb (15 kg) Wire Basket	11907600
0.045" (1.2 mm)	200 lb (90.7 kg) No Twist Drum	11962500
1/16" (1.6 mm)	25 lb (11.3 kg) Plastic Spool, LLW	11931100
1/16" (1.6 mm)	33 lb (15 kg) Wire Basket	11886500
1/16" (1.6 mm)	50 lb (22.7 kg) Poly Pak	11942000
1/16" (1.6 mm)	200 lb (90.7 kg) No Twist Drum	11962500
1/16" (1.6 mm)	400 lb (181.4 kg) No Twist Drum	12025100
5/64" (2.0 mm)	33 lb (15 kg) Wire Basket	12038100
5/64" (2.0 mm)	50 lb (22.7 kg) Poly Pak	11876600
5/64" (2.0 mm)	200 lb (90.7 kg) Half Pak	11954900
5/64" (2.0 mm)	500 lb (226.8 kg) POP	11942100
3/32" (2.4 mm)	50 lb (22.7 kg) Poly Pak	12038200
7/64" (2.8 mm)	60 lb (27.2 kg) Coil	11890000
7/64" (2.8 mm)	200 lb (90.7 kg) Half Pak	11870400
7/64" (2.8 mm)	500 lb (226.8 kg) POP	11879800
1/8" (3.2 mm)	500 lb (226.8 kg) POP	11870500
1/8" (3.2 mm)	750 lb (340.2 kg) POP	11947500

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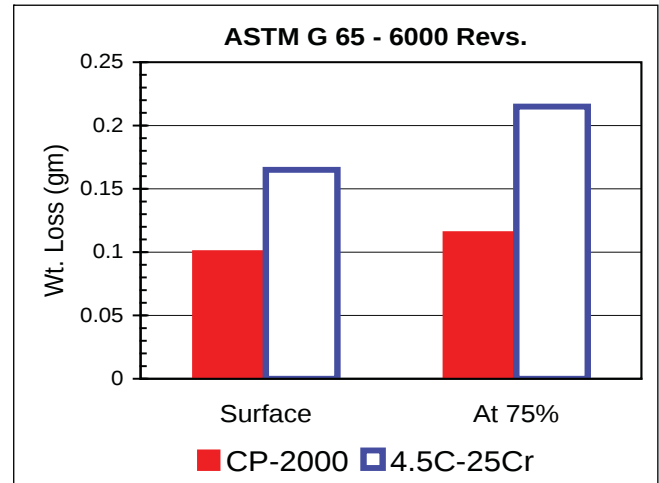
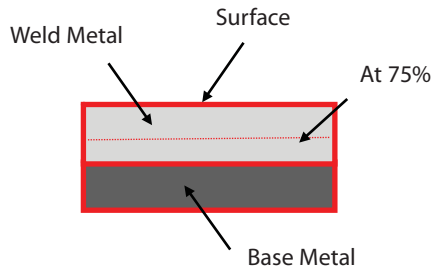
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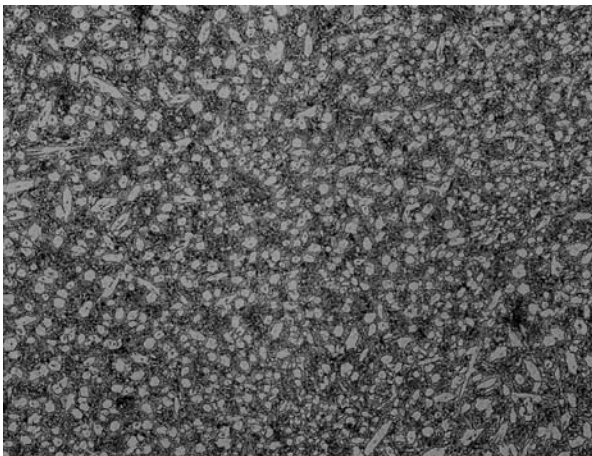
MICROSTRUCTURES



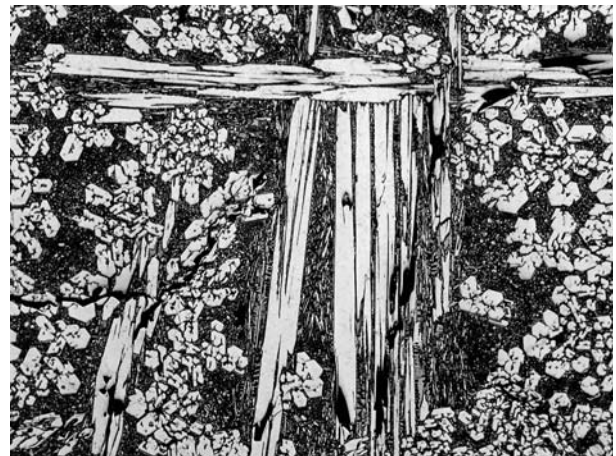
MICROSTRUCTURES

CP2000 vs Standard 4.5C-25Cr Chromium Carbide

CP2000
Weld Face 100X



Standard Chromium Carbide (4.5C-25Cr)
Weld Face 100XA



As shown, CP2000 produces a high concentration of small primary carbides in comparison to a standard chromium carbide of similar chemistry. This results in an optimized combination of wear resistance and toughness.

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