

Smooth deposits enriched with Niobium Carbide and Chromium Carbide offer the ultimate combination of abrasion resistance and high temperature hardness retention



- ❑ 1/3 the cost of Tungsten Carbide electrodes with superior wear properties.
- ❑ Average hardness equivalent to Rockwell C 64 - 68.
- ❑ High percentage of hardness retention up to 1600°F (860°C).
- ❑ Replaces Stellite in many applications.

INTERNATIONAL SPECIFICATIONS	AWS - None DIN 8555 E10-UM-65-GR
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APPLICATIONS:

For protecting all iron based parts subject to severe fine particle abrasion. Also excellent in wear applications at elevated temperatures.

MICROSTRUCTURE:

In the as welded condition the microstructure consists of an austenitic alloy matrix (bulk hardness of RC 61-63) and a large proportion of chromium and complex alloy carbides (RA 78-81).

ALL WELD METAL ANALYSIS (Typical Weight %):

C	Mn	Si	Cr	Mo+Nb+V+W
8	2	2	26	14

FLUX COLOR: Black

TYPICAL MECHANICAL PROPERTIES:**Undiluted Weld Metal**

Hardness:

Wear Co-efficient:

Maximum Value Up to:1st Pass RC 64-66 Vickers 8402nd Pass RC 66-68 Vickers 880

.5%

RECOMMENDED CURRENT: DC Reverse (+) or Straight (-), AC**RECOMMENDED AMPERAGE SETTINGS:**

Diameter (mm)	1/8(3.25)	5/32 (4.0)	3/16 (5.0)
Minimum Amperage	105	130	170
Maximum Amperage	135	170	240

WELDING POSITIONS: Flat, Horizontal, Half up**DEPOSITION RATES:**

Diameter (mm)	Length (mm)	Weldmetal/ Electrode	Electrodes per lb (kg) of Weldmetal	Arc Time of Deposition min/lb (kg)	Amperage Setting
1/8 (3.25)	14" (350)	1.42oz (40g)	11 (25)	27 (59)	120
5/32 (4.0)	18" (450)	2.74oz (79g)	6 (13)	17 (38)	165
3/16 (5.0)	18" (450)	4.45oz (128g)	3.6 (8)	11.6 (25.6)	225

WELDING TECHNIQUES:

Select the minimum required amperage and utilize a medium arc gap. For smooth flat welds use a 3 x weave. There is minimal slag which can be overwelded without prior removal. Only 2 passes are required for development of the full benefits of this alloy. Cross crack stress relieving is normal.