



Manufacturers of Custom Welding Lines for Resale
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SELECTRODE
1139
Bi-Metal Ferro-Nickel
Cast Iron

INTERNATIONAL CLASSIFICATIONS

AWS/ASME A 5.15 E NiFe-CI
ISO 1071: E NiFe

DIN 8573: E NiFe-1 BG 21
NFA 81-342: E NiFe BG 21

FEATURES & APPLICATIONS

For joining of all weldable cast iron grades to themselves or to low carbon steel alloys.

Unique "Bi-Metal" core Ferro Nickel electrode with extra strong arc drive to penetrate contaminants

- Extra strong arc drive facilitates joining in all positions.
- High efficiency weld metal transfer totally eliminates electrode overheating.
- Excellent performance on poor quality porous castings.

ALL WELD METAL ANALYSIS (TYPICAL WEIGHT %)

Microstructure: Consists of an iron-nickel- austenite with finely distributed graphite.

Flux Color: Black

C	S	Mn	P	Si	Misc	Cu	Fe	Al	Ni
1.9	.030	<2.3	--	3.8	1 MAX	2.3	<45	.97	Bal

TYPICAL MECHANICAL PROPERTIES

Undiluted Weld Metal

Maximum Value Up to:

Tensile Strength	76,000 psi (525 MPa)
Yield Strength	53,000 psi (370 MPa)
Elongation	29%
Hardness	Rockwell B 87-90, Brinell 179 Vickers 197

WELDING CURRENT & INSTRUCTIONS

Recommended Current: DC Reverse (+) or AC

Diameter (mm)	3/32 (2.5)	1/8(3.25)	5/32 (4.0)
Minimum Amperage	50	70	100
Maximum Amperage	70	100	130

Welding Techniques: Guide the electrode at a steep angle keeping the arc length short. Use short staggered beads when welding restrained parts.

Welding Positions: Flat, Vertical up, Horizontal, Overhead

Deposition Rates:

Diameter (mm)	Length (mm)	Weldmetal/ Electrode	Electrodes per lb (kg) of Weldmetal	Arc Time of Deposition min/ lb (kg)	Amperage Settings
3/32 (2.5)	12" (300)	.44 oz (13g)	36 (80)	45 (100)	70
1/8 (3.25)	14"(350)	.76 oz (21g)	21 (47)	22 (49)	90
5/32 (4.0)	14" (350)	1.07 oz (31g)	15 (32)	20 (45)	120

APPROXIMATE ELECTRODE PACKAGING & DIMENSIONS

Diameter (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
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Length (mm)	12" (300)	14" (350)	14" (350)
Electrodes / lb	28	14	10
Electrodes / kg	62	32	22