



Manufacturers of Custom Welding Lines for Resale  
www.selectrode.com

**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**

Tensile Strength  
Yield Strength  
Elongation  
Hardness

**Maximum Value Up to:**

76,000 psi (525 MPa)  
53,000 psi (370 MPa)  
11%  
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)
Length (mm)	12" (300)	14" (350)	14" (350)
Electrodes / lb	28	14	10
Electrodes / kg	62	32	22