



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

**SELECTRODE**  
**1142**  
**High Strength Nickel Iron**  
**Cast Iron**

**INTERNATIONAL CLASSIFICATIONS**

**AWS/ASME A 5.15 E NiFe-CI-A**  
**DIN 8573: E NiFe-1 BG23**

**ISO 1071: ENiFE**  
**NFA 81-342: E Ni BG 23**

**FEATURES & APPLICATIONS**

Universal electrode for joining a wide variety of ductile, nodular and malleable cast irons. Ideally suited for the repair of meehanite dies.

Non-overheating, hard driving, Ferro-Nickel electrode for penetrating dirty-rusty contaminated cast irons.

- Excellent for joining cast iron to steel.
- Extremely strong arc drive penetrates surface contaminants.
- Special slag composition can be welded over without creating porosity.
- Extra nickel content insures crack resistant machinable welds.
- Also available in TIG form as product code 6044.

**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	Al	Cu	Fe	Misc	Ni
1.9	.030	<2.3	--	3.8	.97	.6	<45	1.9	ba1

**TYPICAL MECHANICAL PROPERTIES**

<b>Undiluted Weld Metal</b>	<b>Maximum Value Up to:</b>
Tensile Strength	74,000 PSI (550 MPa)
Yield Strength	54,000 PSI (390 MPa)
Elongation	22%
Hardness	Rockwell B 88-90, Brinell 180, Vickers 189

## WELDING CURRENT & INSTRUCTIONS

**Recommended Current:** DC Reverse (+), or AC

Diameter (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)	3/16 (5.0)
Minimum Amperage	50	70	100	130
Maximum Amperage	80	110	140	175

**Welding Techniques:** If possible, remove any surface contamination with the proper solvents. Adjust the welding machine to the lowest proper setting that yields good welding conditions.

**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 (3.2)	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
3/16 (5.0)	14" (350)	1.6 oz (45g)	10 (22)	19 (42)	160

## APPROXIMATE ELECTRODE PACKAGING & DIMENSIONS

Diameter (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)	3/16 (5.0)
Length	12" (350)	14" (350)	14" (350)	14" (350)
Electrodes / lb	28	15	10	6
Electrodes / kg	62	33	22	13.2