



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

SELECTRODE 1248

Flame Cuttable
Manganese Electrode

INTERNATIONAL CLASSIFICATIONS

AWS/ASME A 5.13 EFeMnC
DIN 8555: E7-UM-250 KP

EN14700 EFe9

FEATURES & APPLICATIONS

For repair of rail equipment and construction equipment manufactured of manganese steel.

Joining and cladding electrode for manganese steel that can be flame cut

- Spray transfer allows for smooth uniform overlays.
- Work hardens easily in service.
- Rare alloy that can be flame cut.
- Also available as a special tubular MIG wire as product code 7248. (see page 13.0)

ALL WELD METAL ANALYSIS (TYPICAL WEIGHT %)

Microstructure: In the as deposited condition the microstructure consists of a soft manganese alloy austenite which rapidly work hardens under impact loading.

Flux Color: Dark Grey

C	Ni	Mn	Si	S	P	Cr	Fe
.60	3.65	16.0	.08	.01	.015	3.75	bal

TYPICAL MECHANICAL PROPERTIES

Undiluted Weld Metal

Tensile Strength

Elongation

Hardness

Work Hardness

Maximum Value Up to:

116,000 PSI (800 MPa)

38%

Brinell 170-220, Rockwell B87-96

Vickers 180-230

Brinell 380-550 Rockwell C43-47

Vickers 400-580

WELDING CURRENT & INSTRUCTIONS**Recommended Current:** DC Reverse (+) or AC

Diameter (mm)	1/8 (3.25)	5/32 (4.0)	3/16 (5.0)
Minimum Amperage	90	125	160
Maximum Amperage	125	170	225

Welding Techniques: Clean metal of oils and fatigued sections. Most importantly, do not allow weld interpass temperature to exceed 500°F (260°C).

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	Recovery Rate
1/8 (3.25)	14" (350)	.94 oz (26g)	17 (38)	24 (53)	110	120%
5/32 (4.0)	14" (350)	1.45 oz (41g)	11 (24)	19 (42)	150	120%
3/16 (5.0)	14" (350)	2.3 oz (64g)	7 (16)	13 (29)	195	120%

APPROXIMATE ELECTRODE PACKAGING & DIMENSIONS

Diameter (mm)	1/8 (3.25)	5/32 (4.0)	3/16 (5.0)
Length (mm)	14" (350)	14" (350)	14" (350)
Electrodes / lb	12	8	6
Electrodes / kg	26	18	13