



Manufacturers of Custom Welding Lines for Resale
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SELECTRODE 1183 309L - 16

INTERNATIONAL CLASSIFICATIONS

AWS/ASME A 5.4 E 309L – 16
ISO 3581: E23 12 LR 32

EN: E23 12 LR 32

FEATURES & APPLICATIONS

Wherever maximum ductility is required when joining dissimilar steels to themselves or to stainless steels

Extra strong and tough stainless steel electrode for joining steels to stainless steels

- Highly recommended for joining hard to weld steels
- Moisture resistant coating provides sound porosity free deposits
- Slag is self removing

ALL WELD METAL ANALYSIS (TYPICAL WEIGHT %)

Microstructure: Austenite with a ferrite number of 8

Flux Color: Grey

C	Mn	Si	Cr	Ni	Fe
.04	1.8	.6	23.3	12.5	bal

TYPICAL MECHANICAL PROPERTIES

Undiluted Weld Metal

Maximum Value Up to:

Tensile Strength	110,000 PSI (750 MPa)
Yield Strength	76,000 PSI (530 MPa)
Elongation	32%
Impact Energy	50J: 68°F (20°C)
Hardness	Brinell 219, Rockwell C 14

WELDING CURRENT & INSTRUCTIONS

Recommended Current: DC Reverse (+) or AC

Diameter (mm)	1/16 (1.6)	5/64 (2.0)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
Minimum Amperage	25	30	55	75	90
Maximum Amperage	35	50	75	110	140

Welding Techniques: Material to be welded should be clean of all contaminants. Maintain a short arc and use stringer beads rather than a weave technique.

Welding Positions: Flat, Horizontal, Vertical up, 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
1/16 (1.6)	10" (250)	.13oz (3.6g)	125 (275)	55 (121)	30	100%
5/64 (2.0)	12" (300)	.14oz (4g)	114 (251)	47 (103)	40	100%
3/32 (2.5)	12" (350)	.3oz (9g)	50 (109)	35 (76)	65	100%

1/8 (3.25)	14" (350)	.7oz (20g)	22 (49)	21 (46)	95	100%
5/32 (4.0)	14" (350)	1oz (29g)	15 (33)	18 (40)	120	100%

APPROXIMATE ELECTRODE PACKAGING & DIMENSIONS

Diameter (mm)	1/16 (1.6)	5/64 (2.0)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
Length (mm)	10" (250)	12" (300)	12" (300)	14"(350)	14"(350)
Electrodes / lb	67	42	28	13	9
Electrodes / kg	147	92	62	29	20