



Manufacturers of Custom Welding Lines for Resale
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SELECTRODE 1178 E385-16

INTERNATIONAL CLASSIFICATIONS

AWS/ASME A 5.4 E 385-16
EN 1600: E 20 25 5 Cu N L R 12

FEATURES & APPLICATIONS

1178 is used for welding materials of similar chemical composition which are used for fabrication of equipment and vessels for handling of sulfuric acid and chloride containing media. This filler metal may also find applications for joining type 317L material where improved corrosion resistance in specific media is needed. In order to reduce the propensity for fissuring and hot cracking, the low melting constituents such as carbon, silicon, and phosphorus are controlled to lower levels in this alloy.

ALL WELD METAL ANALYSIS (TYPICAL WEIGHT %)

Flux Color: Grey

C	Si	S	Cr	Mn	Ni	Mo	Cu	Fe
.019	.70	.019	20.3	2.0	25.4	4.6	1.6	Bal.

TYPICAL MECHANICAL PROPERTIES

Undiluted Weld Metal

Tensile Strength
Yield Strength
Elongation

Maximum Value Up to:

88,000 PSI (607 MPa)
65,000 PSI (452 MPa)
37%

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	90
Maximum Amperage	85	110	135

Welding Techniques: Remove all surface contamination. Weld with a short arc and use stringer beads. Keep heat input to a minimum.

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
3/32 (2.5)	12" (300)	.53oz. (15g)	23(50)	17(37)	70	100%
1/8 (3.25)	14" (350)	1.8oz. (51g)	12(26)	13(29)	95	100%
5/32 (4.0)	14" (350)	2.4oz (66g)	9 (20)	10(22)	110	100%

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	23	12	10
Electrodes / kg	50	26	22