Unibraze E308L-16

DESCRIPTION:

Primarily designed for welding type 308L base metal with low or medium carbon content, the UNIBRAZE E308L-16 all-position electrode contains low carbon to avert carbide precipitation during welding as well as weld service. Excellent for welding 18Cr-8Ni steels. It has a smooth running arc that results in a uniform weld bead that is flat to slightly convex. The controlled silicon content provides maximum corrosion/ cracking resistance. The high purity core wire gives very low carbon content.

APPLICATIONS:

UNIBRAZE E308L-16 electrode designed for ease of use on types 304L, 301, 302, 303, 308 and 321. It is used on typical brewery, food, and pharmaceutical equipment. Also for architectural fabrication.

TYPICAL ALL WELD METAL PROPERTIES:

Microstructure: Austenite with 3-9% ferrite. Typical ferrite number is 6.

Weld Metal Analysis

Carbon (C)	0.02	Manganese (Mn)	0.80
Silicon (Si)	1.00	Sulphur (S)	0.01
Phosphorus (P)	0.02	Chrome (C)	19.5
Nickel (N)	10.0	Molybdenum (Mo)	0.75
Copper (Cu)	0.05	Iron (Fe)	Balance

TYPICAL MECHANICAL PROPERTIES:

Undiluted Weld Metal	**Maximum Value Up to:**
Tensile Strength	77,500 PSI (530 MPa)
Yield Strength	54,000 PSI (370 MPa)
Elongation	38%
Impact Energy	35J: -157ºF (-105ºC)
Hardness	Brinell 205, Rockwell B94

CONFORMANCES AND APPROVALS:

AWS/ASME A 5.4: E 308L-16	EN 1600: E 19 9 L R 32
DIN 8556: E19.9LR 26	ISO 3581 E19.9 L R 32
NFA 81-343: EZ 19.9 LR 26	BS 2926 - 1984 19.9L R

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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	70	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" (300)	.3 oz. (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)	1 oz (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

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