DURAMAX E316LMn-16 - DM316LMn-16
FLUX COATED STAINLESS STEEL ELECTRODE

Classification: AWS A5.4 / ASME SFA 5.4

Typical Application & Characteristics

This is a fully austenitic alloy with a maximum ferrite content of 0.5 FN. In critical applications for cryogenic and corrosion-resistant service. One of the primary uses of this electrode is for the joining of similar and dissimilar cryogenic steels for applications down to -425°F [-269°C]. Similar steels include stainless steels such as UNS S30453 and S31653. This electrode also exhibits good corrosion resistance in acids and seawater, and is particularly suited to the corrosion conditions found in urea synthesis plants. It is also non-magnetic. The high Mn-content of the alloy helps to stabilize the austenitic microstructure and aids in hot cracking resistance.

Chemical Composition Requirements (%)

C	Mn	Si	S	P	Cr	Ni	Cu	Mo	N
0.04 max	5.0 - 8.0	0.90 max	0.03 max	0.04 max	18.0 - 21.0	15.0 - 18.0	0.75 max	2.0 - 3.0	0.10 - 0.25

Typical Mechanical Properties

Tensile Strength	Yield Strength	Elongation	Impact Energy	wrc FN
550 MPa min	300 MPa min	20%	-196°C = 60 (J)	0.5 max

Sizes available and recommended currents (DC +) or (AC)

Dia. (mm)	Amperage	Weldmetal/ Electrode	Electrodes per lb (kg) of Weldmetal	Arc Time of Deposition min / lb (kg)	Amperage Settings	Recovery Rate
5/64 (2.0mm)	30 ~ 50	.14 oz (4g)	114 (251)	47 (103)	40	100%
3/32 (2.5mm)	55 ~ 75	.3 oz (9g)	50 (109)	35 (76)	65	100%
1/8 (3.2mm)	75 ~ 110	.7 oz (20g)	22 (49)	21 (46)	95	100%
5/32 (4.0mm)	90 ~ 140	1 oz (29g)	15 (33)	18 (40)	120	100%

POLARITY: DCEP or AC
DCEP = DC, Electrode Positive (reverse polarity) has the most weld penetration.
AC: medium weld penetration (can be more spatter)
USE LESS AMPS ON THIN METAL; MORE AMPS ON THICK METALS
WELDING POSITIONS: Flat, Horizontal, Vertical-up and Overhead positions

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The above information is to be use as a guideline and is taken directly from the manufacturers Technical Data Sheet. If additional information is needed please contact at us at (800) 692-5930