DURAMAX STAINLESS ELECTRODE DM308H-16

Classification: **E308H-16** **AWS A5.4 / ASME SFA 5.4**

Description, Characteristics & Applications:

DURAMAX E308H-16 has a nominal composition (wt.-%) of 19.5 Cr and 10 Ni. This electrode has a restricted carbon content of 0.04%-0.08%. This provides for higher tensile and creep strengths at elevated temperatures. These electrodes are used for welding Type 304H base metal as well as similar alloys in wrought or cast form, such as AISI grades 301, 302, 304, and 305. The weld metal ferrite content is normally targeted for 5 FN to minimize the effect of sigma embrittlement in high-temperature service.
DM308H-16 electrode features a smooth arc transfer with very little spatter and easy slag removal. It is particularly suited for welding food processing equipment and in petroleum and chemical processing plants.

Typical Chemical Composition (%)

AWS Spec.	C	Cr	Ni	Mo	Mn	Si	P	S	Cu	
A5.4	0.04-0.08	18.0-21.0	9.0-11.0	0.75 max	0.5 - 2.5	1.00 max	0.04 max	0.03 max	0.75 max	
Typical	0.05	19.5	9.37	0.08	0.97	0.84	0.022	0.007	0.09	

Typical Mechanical Properties as Welded

Tensile Strength (n/mm²)	Yield Strength (n/mm²)	Elongation (%)	Hardness	Ferrite WRC (FN)	CVN Impacts (J) @ °C
520 Min	300 Min	30% Min	-------	Typically 5	-------

Typical Welding Parameters DCEP or AC

Diameter	Type of Current	Amperage Range		Voltage Range
		Flat	Out of Position	
3/32"	DCEP or AC	70 - 80	65 - 80	20 - 23
1/8"	DCEP or AC	80 - 110	75 - 95	21 - 24
5/32"	DCEP or AC	120 - 160	100 - 120	22 - 25
3/16"	DCEP or AC	170 - 190	Not recommended	23 - 25

NOTE: Maintaining a proper welding procedure, including pre-heat and interpass temperatures, may be critical depending on the type and thickness of material being welded.
POLARITY: DCEP or AC
DCEP = DC, Electrode Positive (reverse polarity) has the most weld penetration.
AC: medium weld penetration (can have more spatter)
WELDING POSITIONS: All Positions
USE LESS AMPS ON THIN METAL; MORE AMPS ON THICK METAL