DURAMAX STAINLESS ELECTRODE DM316H-16

Classification: **E316H-16** **AWS A5.4 / ASME SFA 5.4**

Description, Characteristics & Applications:

DURAMAX 316H-16 is often utilized for welding Type 316 and similar chemical composition alloys in wrought or cast form. This electrode's higher carbon content assures higher tensile and creep strengths at elevated temperatures. The presence of molybdenum provides creep resistance at higher temperature levels.

DM316H-16 is well suited for nuclear plants, power facilities, and the petrochemical industry. It welds furnace parts, turbine components, and superheater headers.

Typical Chemical Composition (%)

AWS Spec.	C	Cr	Ni	Mo	Mn	Si	P	S	Cu	
A5.4	0.04-0.08	17.0-20.0	11.0-14.0	2.0 - 3.0	0.5 - 2.5	1.00 max	0.04 max	0.03 max	0.75 max	
Typical	0.05	18.0	12.0	2.12	1.20	0.65	0.03	0.01	0.14	

Typical Mechanical Properties as Welded

Tensile Strength (n/mm²)	Yield Strength (n/mm²)	Elongation (%)	Hardness	Ferrite WRC (FN)	CVN Impacts (J)
					@ +20 °C
520 Min	300 Min	30% Min	-------	3 - 10 FN	60-80 J

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