DURAMAX STAINLESS ELECTRODE DM383-16

Classification: **E383-16** **AWS A5.4 / ASME SFA 5.4**

Description, Characteristics & Applications:

DURAMAX E383-16 the nominal composition (wt %) of this weld metal is 28 Cr, 31.5 Ni, 3.7 Mo, 1 Cu. These electrodes are used to weld base metal of a similar composition to itself and to other grades of stainless steel. DM383-16 weld metal is recommended for sulfuric and phosphoric acid environments. The elements C, Si, P and S are specified at low maximum levels to minimize weld metal hot cracking and fissuring (while maintaining the corrosion resistance) frequently encountered in fully austenitic stainless steel weld metals.

Typical Chemical Composition (%)

AWS Spec.	C	Cr	Ni	Mo	Mn	Si	P	S	Cu	
A5.4	0.03 max	26.5-29.0	30.0-33.0	3.2 - 4.2	0.5 - 2.5	0.90 max	0.02 max	0.02 max	0.6 - 1.5	
Typical	0.02	27.1	31.0	3.5	0.8	0.75	0.01	0.01	0.9	

Typical Mechanical Properties as Welded

Tensile Strength (n/mm²)	Yield Strength (n/mm²)	Elongation (%)	Hardness	Ferrite WRC (FN)	CVN Impacts (J) @ +20 °C
640	440	38% Min	-------	------	70 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