DURAMAX NICKEL ALLOY ELECTRODE DMHASC276 CTD

Classification: **ENiCrMo-4 AWS A5.11 / ASME SFA 5.11**

Description, Characteristics & Applications:

DURAMAX HASC276 CTD (ENiCrMo-4) has a nominal composition (wt.-%) of 57 Ni, 16 Mo, 15.5 Cr, 5.5 Fe, 4 W, low C. Electrodes of this classification are used for welding low carbon nickel-chromium-molybdenum alloy, for welding the clad side of joints in steel clad with low carbon nickel-chromium-molybdenum alloy, and for welding low carbon nickel-chromium-molybdenum alloy to steel and to other nickel-base alloys. Typical specifications for the nickel-chromium-molybdenum base metals are ASTM B 574, B 575, B 619, B 622, and B 626, all of which have UNS Number N10276.

DMHASC276 CTD offers exceptional resistance to pitting and crevice corrosion. This electrode is formulated to work well in harsh environments as well as pipelines, pressure vessels, chemical processing plants, and oil and gas facilities.

Typical Chemical Composition (%)

AWS Spec.	C	Mn	Fe	P	S	Si	Cu	Ni	Co	Cr
A5.11	0.02 max	1.0 max	4.0 - 7.0	0.04 max	0.03 max	0.20 max	0.50 max	REM	2.5 max	14.5-16.5
Typical	0.005	0.22	5.13	0.007	0.003	0.10	0.03	59.51	0.044	16.09

AWS Spec.	Mo	V	W	TOE						
A5.11	15.0-17.0	0.35 max	3.0 - 4.5	0.50 max						
Typical	15.41	0.04	3.37	<0.50						

Typical Mechanical Properties as Welded

Tensile Strength (n/mm²)	Yield Strength (n/mm²)	Elongation (%)	Typical CVN Impacts @ °C
720	------	40	------

Typical Welding Parameters DCEP

Diameter	Type of Current	Amperage Range		Voltage Range
		Flat	Out of Position	
3/32"	DCEP	70 - 90	65 - 80	20 - 23
1/8"	DCEP	80 - 110	75 - 95	21 - 24
5/32"	DCEP	120 - 160	Not recommended	22 - 25
3/16"	DCEP	170 - 190	Not recommended	23 - 26

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
DCEP: DC, Electrode Positive (reverse polarity) has the most weld penetration
USE LESS AMPS ON THIN METAL; MORE AMPS ON THICK METALS