DURAMAX NICKEL ALLOY ELECTRODE DMNA122

Classification: **ENiCrMo-10 AWS A5.11 / ASME SFA 5.11**

Description, Characteristics & Applications:

DURAMAX NA122 (ENiCrMo-10) has a nominal composition (wt.-%) of 56 Ni, 22 Cr, 13 Mo, 4 Fe, 3 W. Electrodes of this classification are used for welding nickel-chromium-molybdenum alloys, for the welding of the clad side of joints in steel clad with nickel-chromium-molybdenum alloy, to steel and to other nickel-base alloys; and for joining nickel-chromium-molybdenum 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 N06022.
DMNA122 is formulated for welding a wide array of industrial applications including power generation, petroleum and chemical plants, as well as offshore and marine facilities.

Typical Chemical Composition (%)

AWS Spec.	C	Mn	Fe	P	S	Si	Cu	Ni	Co	Cr
A5.11	0.02 max	1.0 max	2.0 - 6.0	0.03 max	0.015 max	0.20 max	0.50 max	REM	2.5 max	20.0-22.5
Typical	0.012	0.16	2.24	0.003	0.001	0.19	0.05	57.34	0.01	22.14

AWS Spec.	Mo	V	W	TOE						
A5.11	12.5-14.5	0.35 max	2.5 - 3.5	0.50 max						
Typical	14.22	0.03	3.45	<0.50						

Typical Mechanical Properties as Welded

Tensile Strength (n/mm²)	Yield Strength (n/mm²)	Elongation (%)
720	-----	38% Min

Typical Welding Parameters DCEP

Diameter	Type of Current	Amperage Range		Voltage Range
		Flat	Out of Position	
3/32"	DCEP	70 - 80	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 - 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
DCEP: DC, Electrode Positive (reverse polarity) has the most weld penetration
USE LESS AMPS ON THIN METAL; MORE AMPS ON THICK METALS