DURAMAX NICKEL ALLOY ELECTRODE DMHAST-B2

Classification: **ENiMo-7** **AWS A5.11 / ASME SFA 5.11**

Description, Characteristics & Applications:

DURAMAX HAST-B2 is a nickel-molybdenum flux-coated electrode developed specifically for welding similar base metals such as Hastelloy B2 to itself or to steel and nickel alloys. Common base metals that can also be welded would include ASTM B333, B335, B619, B622 and B626 all of which have UNS number N10665. DMHAST-B2 has a controlled low level of carbon, iron and cobalt which together with the nickel and molybdenum gives this electrode excellent resistance to pitting and stress corrosion cracking commonly caused by acids.
The most common application of DMHAST-B2 would be in the chemical processing industries on parts exposed to all concentrations and temperatures of hydrochloric acid. It is also used on parts subjected to sulfuric, phosphoric and acetic acids. DMHAST-B2 should not be used in the presence of cupric or ferric salts which may develop where iron or copper bearing alloys have come in contact with acids.

Typical Chemical Composition (%)

AWS Spec.	C	Mn	Fe	P	S	Si	Cu	Ni	Co	Cr
A5.11	0.02 max	1.75 max	2.25 max	0.04 max	0.03 max	0.20 max	0.50 max	REM	1.0 max	1.0 max
Typical	0.01	1.20	1.50	0.01	0.02	0.11	0.35	REM	0.40	0.60

AWS Spec.	Mo	W	TOE							
A5.11	26.0-30.0	1.0 max	0.50 max							
Typical	28.50	0.45	<0.50							

Typical Mechanical Properties as Welded

Tensile Strength (n/mm²)	Yield Strength (n/mm²)	Elongation (%)
807	-----	28% 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