

## NICKEL ALLOY WIRE DMHASG

Alloy: ERNiCrMo-1 (Hastelloy G) Weld Process: GMAW & GTAW AWS A5.14 / ASME SFA 5.14

### Application

ERNiCrMo-1 is used for welding nickel-chromium-molybdenum base materials. Can use the GTAW, GMAW, welding processes for cladding steel with the ERNiCrMo-1 weld material.

### AWS Chemical Composition Requirements

C	Mn	Fe	P	S	Si	Cu	Ni	Co	Cr	Nb+Ta	Mo	Other	W
0.05 max	1.0 - 2.0	18.0 - 21.0	0.04 max	0.03 max	1.0 max	1.5 - 2.5	Remainder	2.5 max	21.0 - 23.5	1.75 - 2.50	5.5 to 7.5	0.50 max	1.0 max

### Deposited Chemical Composition % (Typical)

C	Mn	Fe	Cr	Ni	Cu	Mo	Nb/Ta
0.03	1.5	20.5	22.0	Remainder	2.0	6.50	2.1

### Deposited All Weld Metal Properties % (AW)

Tensile Strength	Elongation	Charpy-V-Notch Impact
97,000psi	34.5%	Not applicable

### Recommended Welding Parameters for TIG and MIG Welding of Nickel Alloys

Process	Diameter of Wire	Voltage (V)	Amperage (A)	Gas
Tig	.035 inches x 36	12 - 15	60 - 90	100% Argon
	.045 inches x 36	13 - 16	80 - 110	100% Argon
	1/16 inches x 36	14 - 18	90 - 130	100% Argon
	3/32 inches x 36	15 - 20	120 - 175	100% Argon
	1/8 inches x 36	15 - 20	150 - 220	100% Argon
MIG	.035 inches	26 - 29	150 - 190	75% Argon + 25% Helium
	.045 inches	28 - 32	180 - 220	75% Argon + 25% Helium
	1/16 inches	29 - 33	200 - 250	75% Argon + 25% Helium

### Notes

Note: Other shielding Gases may be used for Mig and Tig welding. Shielding gases are chosen taking Quality, Cost, and Operability into consideration.

If additional information is needed Contact Weldwire Company, Inc. 800-523-1266