

Nickel Alloy Wire

Alloy: WWG-2

Conforms to Certification: AWS A5.14

Class: ERNiCrMo-8

ASME SFA A5.14

Alloy: ERNiCrMo-8 (Alloy G-2)

Weld Process: GMAW, GTAW Welding Processes

AWS Chemical Composition Requirements

C = 0.03 max	Cu = 0.7 – 1.2
Mn = 1.0 max	Ni = 47.0 – 52.0
Fe = Remainder	Ti = 0.7 – 1.5
P = 0.03 max	Cr = 23.0 – 26.0
S = 0.03 max	Mo = 5.0 – 7.0
Si = 1.0 max	Other = 0.50 max

Deposited All Weld Metal Properties % (AW)

Tensile Strength	91,000psi
Elongation	27%

Deposited Chemical Composition % (Typical)

C = 0.01	Cr = 24.75	Ni = 50.5
Cu = 0.90	Mo = 6.1	Fe = Balance
Si = 0.70		

Deposited Charpy-V-Notch Impact Properties %

Not applicable

Application

ERNiCrMo-8 is used for welding nickel-chromium-molybdenum base materials to itself, steel and other nickel base alloys, and for cladding steel with NI-CR-MO weld materials.

Recommended Welding Parameters for TIG and MIG Welding of Nickel Alloys

<u>Process</u>	<u>Diameter of Wire</u>	<u>Voltage (V)</u>	<u>Amperage (A)</u>	<u>Gas</u>
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

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

