

Nickel Alloy Wire

Alloy: WWHASX
Class: ERNiCrMo-2

Conforms to Certification: AWS A5.14
ASME SFA A5.14

Alloy: ERNiCrMo-2 (Alloy HASX)
Weld Process: GMAW, GTAW Welding Processes

AWS Chemical Composition Requirements

C = 0.05 – 0.15 Cu = 0.5 max
Mn = 1.0 max Ni = Remainder
Fe = 17.0 – 20.0 Co = 0.5 to 2.5
P = 0.04 max Cr = 20.5 – 23.0
S = 0.03 max Mo = 8.0 – 10.0
Si = 1.0 max W = 0.2 – 1.0
Other = 0.50 max

Deposited All Weld Metal Properties % (AW)

Tensile Strength 99,000psi
Elongation 27%

Deposited Chemical Composition % (Typical)

C = 0.10 Cr = 22.0 Ni = Balance
Fe = 19.5 Mo = 9.75

Deposited Charpy-V-Notch Impact Properties %

Not applicable

Application

ERNiCrMo-2 is used for welding nickel-chromium-molybdenum base materials to itself, steel and other nickel base alloys. Can clad steel using GTAW, GMAW, welding processes. Can weld on high nickel base alloys exposed to high temperatures.

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.

