



PRODUCT

DATA SHEET

Nickel Alloy Wire

Weld Process: GMAW & GTAW

Alloy: ERNiCrMo-9 (Alloy G3) Class: ERNiCrMo-9
 Conforms to Certification: AWS A5.14 / ASME SFA 5.14

Alloy: DMG-3

AWS Chemical Composition Requirements

C = 0.015 max Cu = 1.5 – 2.5
 Mn = 1.0 max Ni = Remainder
 Fe = 18.0 – 21.0 Co = 5.0 max
 P = 0.04 max Cr = 21.0 – 23.5
 S = 0.03 max Nb+Ta = 0.50 max
 Si = 1.0 max Mo = 6.0 – 8.0
 W = 1.5 max Other = 0.50 max

C = 0.01 Cr = 22.0 Ni = Balance
 Cu = 2.0 Mo = 7.1 Fe = 20.5
 Co = 2.75

Deposited All Weld Metal Properties % (AW)

Tensile Strength 96,000psi
 Elongation 29%

Deposited Chemical Composition % (Typical)

Deposited Charpy-V-Notch Impact Properties %

Not applicable

Application

ERNiCrMo-9 is used for welding nickel-chromium-molybdenum base materials to themselves, steel and other nickel base alloys, and for cladding steels.

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.



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