WELDWIRE COMPANY, INC. **Technical Information**

Nickel Alloy Wire

Alloy: WWNA62 Conforms to Certification: AWS A5.14
Class: ERNiCrFe-5 ASME SFA A5.14

Alloy: ERNiCrFe-5 (Alloy 62)
Weld Process: GMAW, GTAW Welding Processes

AWS Chemical Composition Requirements

C = 0.08 max	Cu = 0.50 max
Mn = 1.0 max	Ni = 70.0 min
Fe = 6.0 – 10.0	Co = 0.12 max
P = 0.03 max	Cr = 14.0 – 17.0
S = 0.015 max	Nb+Ta = 1.5 – 3.0
Si = 0.35 max	Other = 0.50 max

Deposited All Weld Metal Properties % (AW)

Tensile Strength	80,000psi
Yield Strength	40,000psi
Elongation	30%

Deposited Chemical Composition % (Typical)

Ni = 73.0 Cr = 15.5 Nb = 2.2
Fe = 8.0

Deposited Charpy-V-Notch Impact Properties %

Not applicable

Application

ERNiCrFe-5 is used primarily for gas tungsten arc and gas metal arc matching composition base metals. It is also used for welding Inconel 601 and Incoloy 800. It can be used to weld dissimilar metal combinations such as steel, stainless steel, Inconel and Incoloy alloys.

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

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