DURAMAX™
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PRODUCT DATA SHEET

Nickel Alloy Wire

Weld Process: GMAW, GTAW & SAW

Alloy: ERNiCrMo-10 (Alloy 622) Class: ERNiCrMo-10
Conforms to Certification: AWS A5.14 / ASME SFA 5.14

Alloy: DMNA622

AWS Chemical Composition Requirements

C = 0.015 max	Cu = 0.50 max
Mn = 0.50 max	Ni = Remainder
Fe = 2.0 – 6.0	Co = 2.5 max
P = 0.02 max	Cr = 20.0 – 22.5
S = 0.01 max	Mo = 12.5 – 14.5
Si = 0.08 max	V = 0.35 max
Other = 0.50 max	W = 2.5 – 3.5

Deposited Chemical Composition % (Typical)

C = 0.008	Cr = 21.5	Ni = Balance
Fe = 3.1	Mo = 13.5	W = 3.0

Deposited All Weld Metal Properties % (AW)

Tensile Strength	115,000psi
Yield Strength	82,000psi
Elongation	38%

Deposited Charpy-V-Notch Impact Properties %

Not applicable

Application

ERNiCrMo-10 is used for welding nickel-chromium-molybdenum base materials to themselves, steel and other nickel base alloys, and for cladding steels. Can be used to weld duplex, super duplex stainless steels.

Recommended Welding Parameters for TIG,MIG, and SAW 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

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

SAW	3/32 inches	28 – 30	275 – 350	Suitable Flux may be used
	1/8 inches	29 – 32	350 – 450	Suitable Flux may be used
	5/32 inches	30 – 33	400 – 550	Suitable Flux may be used

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

Note: Both agglomerated and fused fluxes can be used for submerged arc welding.

Note: The chemical composition of the flux mainly affects the chemistry of the weld metal and consequently its corrosion resistance and mechanical properties.