



## ERNiCrMo-8

AWS Chemical Composition Requirements	
Element	Composition (%)
C	0.03 max
Mn	1.0 max
Si	1.0 max
P	0.03 max
S	0.03 max
Cu	0.7 – 1.2
Ni	47.0 – 52.0
Cr	23.0 – 26.0
Mo	5.0 – 7.0
Ti	0.7 – 1.5
Fe	Remainder
Other	0.50 max

Deposited Chemical Composition %	
Element	Composition (%)
C	0.01
Si	0.7
Cu	0.9
Cr	24.75
Ni	50.5
Mo	6.1
Fe	Balance

### Application

ERNiCrMo-8 is a filler metal used for welding nickel-chromium-molybdenum base alloys to themselves, to steel, and to other nickel-based alloys. It is also suitable for cladding steel with Ni-Cr-Mo weld metal, offering excellent corrosion resistance and strength in harsh environments.

Deposited All Weld Metal Properties %	
Property	Value
Tensile Strength	91,000 psi
Elongation	27%



### Recommended Welding Parameters for TIG and MIG Welding of Nickel Alloys

Process	Wire Diameter	Voltage (V)	Amperage (A)	Shielding Gas
TIG	.035 inches x 36	12 – 15	60 – 90	100% Argon
TIG	.045 inches x 36	13 – 16	80 – 110	100% Argon
TIG	1/16 inches x 36	14 – 18	90 – 130	100% Argon
TIG	3/32 inches x 36	15 – 20	120 – 175	100% Argon
TIG	1/8 inches x 36	15 – 20	150 – 220	100% Argon
MIG	.035 inches	26 – 29	150 – 190	75% Argon + 25% Helium
MIG	.045 inches	28 – 32	180 – 220	75% Argon + 25% Helium
MIG	1/16 inches	29 – 33	200 – 250	75% Argon + 25% Helium

#### **Note**

Alternative shielding gases can be used for MIG and TIG welding, depending on the application. Gas selection is based on weld quality, cost-efficiency, and ease of use.