



PRODUCT

DATA SHEET

Nickel Alloy Wire

Weld Process: GMAW & GTAW

Alloy: ERNiMo-3 (Hastelloy W) Class: ERNiMo-3
 Conforms to Certification: AWS A5.14 / ASME SFA 5.14

Alloy: DMHASW

AWS Chemical Composition Requirements

C = 0.05 Cr = 5.0 Ni = 62.5
 Mo = 24.0 Fe = 6.0

C = 0.12 max Cu = 0.50 max
 Mn = 1.0 max Ni = Remainder
 Fe = 4.0 – 7.0 Co = 2.5 max
 P = 0.04 max Cr = 4.0 – 6.0
 S = 0.03 max Mo = 23.0 – 26.0
 Si = 1.0 max V = 0.60 max
 W = 1.0 max Other = 0.50 max

Deposited All Weld Metal Properties % (AW)

Tensile Strength 109,500psi
 Elongation 42%

Deposited Chemical Composition % (Typical)

Deposited Charpy-V-Notch Impact Properties %

Not applicable

Application

ERNiMo-3 is a 62.5 Ni, 24 Mo, 6 Fe, 5 Cr alloy that is excellent for welding dissimilar high temperature alloys. Major use is in aircraft engine repair and maintenance.

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