DURAMAX®
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Product
Data Sheet

# NICKEL ALLOY WIRE DMNA062

**Alloy: ERNiCrFe-5 (Alloy 62) Weld Process: GMAW & GTAW AWS A5.14 / ASME SFA 5.14**

## *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.

## *AWS Chemical Composition Requirements*

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

## *Deposited Chemical Composition % (Typical)*

| Ni | Cr | Nb | Fe |
|---|---|---|---|
| 73.0 | 15.5 | 2.2 | 8.0 |

## *Deposited All Weld Metal Properties % (AW)*

| Tensile Strength | Yield Strength | Elongation | Charpy-V-Notch Impact |
|---|---|---|---|
| 80,000psi | 40,000psi | 30% | Not applicable |

## *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 |

## *Notes*

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

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