



!!!! WARNING !!!!



WELDING FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH.

BEFORE USING THIS PRODUCT THE WELDER (END-USER) MUST READ AND UNDERSTAND THE COMPLETE PRODUCT WARNING LABEL AND MATERIAL SAFETY DATA SHEET (MSDS).

THE MATERIAL SAFETY DATA SHEET (MSDS) WHICH OUTLINES THE POTENTIAL HEALTH HAZARDS AND SAFETY INFORMATION RELATED TO THIS PRODUCT CAN BE DOWNLOADED FROM THE MSDS PORTION OF THIS WEBSITE. IT IS ALSO AVAILABLE FROM YOUR EMPLOYER AND WELDING SUPPLY DISTRIBUTOR.

DO NOT PROCEED WITH USE OF THIS PRODUCT UNTIL YOU READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET (MSDS) AND PRODUCT WARNING STATEMENT.

BE SURE TO CONSULT THE LATEST VERSION OF THE MSDS.

SEE THE PRODUCT WARNING LABEL AND MSDS FOR COMPLETE WARNING INFORMATION.



CROWN ALLOYS

COMPANY

30105 STEPHENSON HWY.
MADISON HEIGHTS, MI. 48071
(248) 588-3790 • (800) 521-7878

ROYAL 60-10

Premium Nickel-Copper TIG Wire

Typical Applications:

ROYAL 60-10 (TIG) provides strong welds that resist corrosion in many media, including seawater, salts, and reducing acids. The **ROYAL 60-10** is used for the gas-tungsten-arc welding of Monel® alloys 400, R-405, and K500 as well as ASTM B127, B163, B164, B165 and UNS Number N04400. Some of the items that are welded using the **ROYAL 60-10** are fresh and salt water pumps, turbine blades, marine equipment, propeller shafts, pump, impellers, propellers, condenser tubes, distilling columns, laundry equipment and dairy equipment. This alloy is also good for overlaying nickel-copper alloys onto steel and welding dissimilar nickel-copper alloys to steel. Other dissimilar welding applications include joining Monel® alloys to Nickel 200 and copper-nickel alloys. The weld metal of the **ROYAL 60-10** is not age hardenable and therefore has lower strength than the base metal when used to join Monel® alloy K-500.

Specification:

AWS A5.14/A5.14M

Classification:

ER NiCu-7

Typical Mechanical Properties:

| | |
|---------------------------|--------|
| ➤ Tensile Strength (psi): | 70,000 |
| ➤ Tensile Strength (Mpa): | 483 |
| ➤ Elongation: | 30% |

Procedure:

ROYAL 60-10 (Gas Tungsten Arc Welding):

Base metal must be clean. Nickel alloys will become brittle if any sulphur or lead is absorbed into the weld deposit. These impurities are often found in lubricants, dirt, grease, oil, paint and other processing residues. Use about 25% more opening than conventional joint openings to allow for the low penetrating and sluggish nature of the molten nickel. Use DC straight polarity. An argon or argon-helium mix shielding gas should be used. Arc length must be maintained as short as possible. Prevent agitation and excessive heat from the weld puddle so as to avoid burning out of the deoxidizing elements.

Sizes:

1/16 x 36"
3/32 x 36"
1/8 x 36"

Monel® is a registered trademark of the Special Metals Group of Companies.