

Royal 60-10

Gas Tungsten Arc Welding
(GTAW) TIG Alloy

Nickel-Copper Alloy



"The Royal Line"

CROWN ALLOYS COMPANY

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Premium Nickel-Copper TIG Alloy

Typical Applications

Royal 60-10 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, B366, B564, B7725, B730 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.

Specifications

AWS A5.14/A5.14M
ER NiCu-7

- Tensile Strength 70,000 psi (minimum)
- Tensile Strength 483 Mpa (minimum)
- Elongation in 2" 30% (minimum)

Procedure

Royal 60-10 (Gas Tungsten Arc Welding):

The 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, Amps and Part Numbers

Diameter	Part Numbers	
	1# Package	5# Package
1/16 x 36"	RT6010/TL-BP	RT6010/TL
3/32 x 36"	RT6010/TN-BP	RT6010/TN
1/8 x 36"	RT6010/TO-BP	RT6010/TO

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!!!! 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 THE NEW 16 SECTION SAFETY DATA SHEET (SDS).

THE SAFETY DATA SHEET (SDS) WHICH OUTLINES THE POTENTIAL HEALTH HAZARDS AND SAFETY INFORMATION RELATED TO THIS PRODUCT CAN BE DOWNLOADED FROM THE SDS 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 SAFETY DATA SHEET (SDS) AND PRODUCT WARNING STATEMENT.

BE SURE TO CONSULT THE LATEST VERSION OF THE SDS.

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

