



!!!! 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 625-10 & 625-30

Premium Nickel-Chromium-Molybdenum TIG & MIG Wire

Typical Applications:

Royal 625-10 (TIG) and **Royal 625-30** (MIG) provide high strength welds over a broad temperature range and have exceptional corrosion resistance, including resistance to localized attack such as pitting and crevice corrosion. The aforementioned characteristics make this an ideal alloy for surfacing or cladding of steel as well as joining. This alloy is used extensively in chemical and food processing equipment, aerospace and marine engineering, pollution control equipment such as scrubbers, petroleum refining equipment and petro-chemical equipment. **Royal 625-10** and **Royal 625-30** are used to join Inconel® alloys 625, 601, and 690, and Incoloy® alloys 800HT, 800, and 825. Also used to weld 9% nickel steel and Inco® alloy G & G-3. It will also join alloys 317LM, 254SMO, AL-6XN, 20 Mo-6, 904L and heat & corrosion resisting castings like HK40, HT and HY. **Royal 625-10** and **Royal 625-30** are useful for many dissimilar joints involving Inconel® and Incoloy® alloys, carbon steels, low-alloy steels and stainless steels.

Specifications:

AWS A5.14
ER NiCrMo-3

Mechanical Properties

- Tensile Strength 108,000 psi
- Yield Strength 80,000 psi
- Elongation in 2" 30%

Procedure:

Royal 625-10 (Gas Tungsten Arc Welding - TIG): Base metal must be clean. Nickel alloys become brittle if any sulfur 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 the deoxidizing elements.

Royal 625-30 (Gas Metal Arc Welding - MIG): Use DC reverse polarity. Maintain a medium arc length. Balance of procedure same as **Royal 625-10**.

Sizes:

| | | | |
|------------|-------|-------|---------|
| GTAW (TIG) | 1/16" | 3/32" | 1/8" |
| GMAW (MIG) | | Volts | Amps |
| | .035 | 26-28 | 120-170 |
| | .045 | 28-30 | 170-220 |

Available in 2# and 8" and 30# spools.

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