# TECHALLOY® 622

Nickel ▪ AWS ERNiCrMo-10

## KEY FEATURES

- Excellent corrosion resistance in oxidizing as well as reducing media in a wide variety of chemical process environments
- Outstanding resistance to stress corrosion cracking, pitting and crevice corrosion
- Q2 Lot® - Certificate showing actual deposit composition available online

## WELDING POSITIONS

All

## CONFORMANCES

| | |
|---|---|
| **AWS A5.14M: 2011** | ERNiCrMo-10 |
| **UNS** | N06022 |

## TYPICAL APPLICATIONS

- A nickel based alloy with chromium, molybdenum, and tungsten as the principal alloying elements
- Used for cladding overlay as well as thermal spray applications

## SHIELDING GAS

**MIG** 75% Ar / 25% He
**TIG** 100% Ar

## DIAMETERS / PACKAGING

| Diameter in (mm) | MIG 33 lb (15 kg) Steel Spool | TIG 10 lb (4.5 kg) Tube 30 lb (13.6 kg) Master Carton | SAW 55 lb (25 kg) Basket |
|---|---|---|---|
| 0.035 (0.9) | MG622035667 | | |
| 0.045 (1.1) | MG622045667 | | |
| 1/16 (1.6) | MG622062667 | TG622062638 | |
| 3/32 (2.4) | | TG622093638 | SA622093726 |
| 1/8 (3.2) | | TG622125638 | |

## WIRE COMPOSITION[1] - *As Required per AWS A5.14M: 2011*

| | %C | %Mn | %Fe | %P | %S | %Si | %Cu |
|---|---|---|---|---|---|---|---|
| **Requirements** AWS ERNiCrMo-10 | 0.015 max | 0.50 max | 2.0 - 6.0 | 0.02 max | 0.010 max | 0.08 max | 0.50 max |
| **Typical Performance[2]** Techalloy® 622 | 0.01 | 0.14 | 4.4 | 0.003 | 0.002 | 0.07 | 0.01 |
| | **%Ni** | **%Co** | **%Cr** | **%Mo** | **%V** | **%W** | **%Other** |
| **Requirements** AWS ERNiCrMo-10 | Remainder | 2.50 max | 20.0 - 22.5 | 12.5 - 14.5 | 0.35 max | 2.5 - 3.5 | 0.50 max |
| **Typical Performance[2]** Techalloy® 622 | 56 | 0.1 | 21.4 | 13.8 | 0.02 | 3.1 | <0.50 |

## TYPICAL OPERATING PROCEDURES

| Process | Diameter in (mm) | Voltage (volts) | Amperage | Gas |
|---|---|---|---|---|
| MIG | 0.035 (0.9) | 26-29 | 140-190 | 75% Argon / 25% Helium |
| | 0.045 (1.1) | 28-32 | 160-200 | |
| | 1/16 (1.6) | 29-33 | 200-250 | |
| SAW | 3/32 (2.4) | 28-30 | 275-350 | Lincolnweld® P2000 |

*[1]Typical all weld metal. [2]See test results disclaimer on pg. 13.*
*Safety Data Sheets (SDS) are available on our website at www.lincolnelectric.com*

*Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at www.lincolnelectric.com*

## TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

## CUSTOMER ASSISTANCE POLICY

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Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.

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