

## Nicro 625 Tig

**CATEGORY** GMAW-GTAW Solid wires

**TYPE** Solid nickel base welding rod for tungsten inert gas welding

**APPLICATIONS** Nicro 625 is developed for welding and cladding nickel-based alloys such as alloy 625 or similar materials. This alloy can also be used for welding dissimilar nickel-based alloys to each other, to alloyed steels or to stainless steels and for joining 6% molybdenum super austenitic steels.. Nicro 625 is most commonly used in the chemical processing industry, pollution control equipment, marine equipment, nuclear reactor components, pump shafts. Also used in the aerospace industry for thrust reverser assemblies, fuel nozzles, after-burners and combustion systems.

**PROPERTIES** Nicro 625 is a solid drawn wire that is cleaned in a very special way to obtain cleaner and higher quality welds with a bright seam and excellent ductility. Long term use at working temperatures between 600°C and 800°C should be avoided.

**CLASSIFICATION**

|            |                                   |
|------------|-----------------------------------|
| AWS        | A 5.14: ER NiCrMo-3               |
| EN ISO     | 18274: S Ni 6625<br>(NiCr22Mo9Nb) |
| DIN: W.Nr. | 2.4831                            |
| DIN        | 1736: SG NiCr21Mo9Nb              |

**SUITABLE FOR** Nicro 625 is developed for welding and cladding nickel-based alloys such as alloy 625, 825 or similar materials. This alloy can also be used for welding dissimilar nickel-based alloys to each other, to alloyed steels, to stainless steels and for joining 9% Nickel steels., X10NiCrAlTi, 32-20H, 32-21, X8 Ni9, ASTM A 533 Gr1, 800H, Sanicro 28, 254SMo, inconel 625, UNS : N8904, N08926, N08825, N06625, N08020. DIN : X8Ni9, X1NiCrMoCuN25 20 6, X1NiCrMoCuN25 20 5, NiCr21Mo, NiCr22Mo9Nb W.Nr.: 1.4876, 1.5656, 1.4529, 2.4858, 2.4856, 1.4539, 1.4529, 1.4547, 2.4660

**APPROVALS** TUV (12400.00), CE approved

**WELDING POSITIONS:**



**WELD DEPOSIT WEIGHT %**

| C     | Mn   | Si   | Cr    | Ni  | Mo       | Nb+Ta | Ti   | Fe   |
|-------|------|------|-------|-----|----------|-------|------|------|
| <0.02 | 0.02 | <0.2 | 22.00 | Rem | 8.0-10.0 | 3.5   | 0.15 | <0.7 |

**MECHANICAL PROPERTIES**

| Heat Treatment | R <sub>p0,2</sub><br>(N/mm <sup>2</sup> ) | R <sub>m</sub><br>(N/mm <sup>2</sup> ) | A <sub>5</sub><br>(%) | Impact Energy (J) ISO-V |       |        | Hardness<br>HRc / HV |
|----------------|---|--|-----------------------|-------------------------|-------|--------|----------------------|
|                |   |  |                       | +20°C                   | -40°C | -196°C |                      |
| AW             | >450                                      | >750                                   | >32                   | >110                    |       | >89    |                      |

AW: as welded

**WELDING PARAMETERS / PACKING**

| D (mm)     | Welding Parameters |  | Packing (kg) |        |
|------------|--------------------|--|--------------|--------|
|            | Current (A) DC-    |  | single       | master |
| 1.6 x 1000 | 50-80              |  | 5            | 25     |
| 2.0 x 1000 | 70-110             |  | 5            | 25     |
| 2.4 x 1000 | 110-180            |  | 5            | 25     |
| 3.2 x 1000 | 150-250            |  | 5            | 25     |

**REDRYING TEMPERATURE** not required

**GAS ACC. EN ISO 14175:** I1

