




CEWELD NiCro 625

| TYPE | Mig welding wire for Inconel 625 | | | | | | | | | | | | | | | | | | |
|---|--|----------------|-------------------------|----------------------|--------------------------------|-------------------------|--------------------|----------|-------------------------|--------|-----------|-----|-----|----|-----|----|-----|---|-----|
| APPLICATIONS | CEWELD® 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. Alloy 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 | CEWELD® NiCro 625 is a solid drawn wire that is cleaned in a very special way to obtain cleaner and higher quality welds, especially when used for the Hotwire Tig process intermediate cleaning between the layers can be skipped and results in a bright seam with excellent ductility. The cast and helix of this wire are kept above the EN standards to offer excellent wire feeding and a wire that comes straight out of the torch. | | | | | | | | | | | | | | | | | | |
| CLASSIFICATION | <table border="0"> <tr> <td>AWS</td> <td>A 5.14: ERNiCrMo-3</td> </tr> <tr> <td>EN ISO</td> <td>18274: S Ni 6625 (NiCr22Mo9Nb)</td> </tr> <tr> <td>W.Nr.</td> <td>2.4831</td> </tr> <tr> <td>F-nr</td> <td>43</td> </tr> <tr> <td>FM</td> <td>6</td> </tr> </table> | AWS | A 5.14: ERNiCrMo-3 | EN ISO | 18274: S Ni 6625 (NiCr22Mo9Nb) | W.Nr. | 2.4831 | F-nr | 43 | FM | 6 | | | | | | | | |
| AWS | A 5.14: ERNiCrMo-3 | | | | | | | | | | | | | | | | | | |
| EN ISO | 18274: S Ni 6625 (NiCr22Mo9Nb) | | | | | | | | | | | | | | | | | | |
| W.Nr. | 2.4831 | | | | | | | | | | | | | | | | | | |
| F-nr | 43 | | | | | | | | | | | | | | | | | | |
| FM | 6 | | | | | | | | | | | | | | | | | | |
| SUITABLE FOR | <p>Ni 6625 / NiCr22Mo9Nb / 2.4831 W.Nr: 1.4529, 1.4539, 1.4547, 1.4876, 1.4958, 1.5656, 2.4660, 2.4816, 2.4856, 2.4858,</p> <p>X1CrNiMoCuN20-18-7 - X10NiCrAlTi32-20 - X5NiCrAlTi31-20 - NiCr15Fe - NiCr22Mo9Nb - NiCr21Mo - X1NiCrMoCuN25 20 6 - X1NiCrMoCuN25 20 5 - NiCr21Mo - 8XNi9</p> <p>ASTM: A 533 Gr1 UNS: S31254 - N08800 - N08810 - N06600 - N06625 - N08825 - N08926 - N08020 Alloy 254 SMO - Alloy 800 - Alloy 800H - Alloy 600 - Alloy 625 - Alloy 825 - Sanicro 28 - AL6XN</p> | | | | | | | | | | | | | | | | | | |
| APPROVALS | TÜV: 12400.0 | | | | | | | | | | | | | | | | | | |
| WELDING POSITIONS |  | | | | | | | | | | | | | | | | | | |
| TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%) | <table border="1"> <thead> <tr> <th>C</th> <th>Si</th> <th>Mn</th> <th>Cr</th> <th>Ni</th> <th>Mo</th> <th>Nb</th> <th>Fe</th> <th>Nb+Ta</th> </tr> </thead> <tbody> <tr> <td>0.08</td> <td>0.4</td> <td>0.4</td> <td>21</td> <td>63</td> <td>9</td> <td>3.8</td> <td>3</td> <td>3.8</td> </tr> </tbody> </table> | C | Si | Mn | Cr | Ni | Mo | Nb | Fe | Nb+Ta | 0.08 | 0.4 | 0.4 | 21 | 63 | 9 | 3.8 | 3 | 3.8 |
| C | Si | Mn | Cr | Ni | Mo | Nb | Fe | Nb+Ta | | | | | | | | | | | |
| 0.08 | 0.4 | 0.4 | 21 | 63 | 9 | 3.8 | 3 | 3.8 | | | | | | | | | | | |
| MECHANICAL PROPERTIES | <table border="1"> <thead> <tr> <th rowspan="2">Heat Treatment</th> <th rowspan="2">R_{P0.2} (MPa)</th> <th rowspan="2">R_m (MPa)</th> <th rowspan="2">A₅ (%)</th> <th colspan="2">Impact Energy (J) ISO-V</th> <th rowspan="2">Hardness</th> </tr> <tr> <th>-20°C</th> <th>-196°C</th> </tr> </thead> <tbody> <tr> <td>As Welded</td> <td>460</td> <td>750</td> <td>32</td> <td>110</td> <td>70</td> <td>HRc</td> </tr> </tbody> </table> | Heat Treatment | R _{P0.2} (MPa) | R _m (MPa) | A ₅ (%) | Impact Energy (J) ISO-V | | Hardness | -20°C | -196°C | As Welded | 460 | 750 | 32 | 110 | 70 | HRc | | |
| Heat Treatment | R _{P0.2} (MPa) | | | | | R _m (MPa) | A ₅ (%) | | Impact Energy (J) ISO-V | | Hardness | | | | | | | | |
| | | -20°C | -196°C | | | | | | | | | | | | | | | | |
| As Welded | 460 | 750 | 32 | 110 | 70 | HRc | | | | | | | | | | | | | |
| REDRYING | Not required | | | | | | | | | | | | | | | | | | |
| GAS ACC. EN ISO 14175 | I1 | | | | | | | | | | | | | | | | | | |