



# CEWELD Alloy B3 Tig

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |                      |                    |                         |      |      |       |      |          |     |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------|--------------------|-------------------------|------|------|-------|------|----------|-----|
| TYPE                                        | Nickel based wire or rod for welding Hastelloy B2 and B3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                      |                    |                         |      |      |       |      |          |     |
| APPLICATIONS                                | Plants for the production and processing of hydrochloric, sulfuric, acetic and phosphoric acids.<br>Plants for ethylbenzene production. Pressure vessels for chloroprene production. Plants for the production of phenol from isopropyl benzene. Pyrolysis plants for the production of acetic anhydride                                                                                                                                                                                                                                                                                                    |                            |                      |                    |                         |      |      |       |      |          |     |
| PROPERTIES                                  | CEWELD® Alloy B3 Tig is a nickel-base alloy with excellent resistance tot hydrochlorid acid at all concentrations and tempertures. It also withstands hydrogen chloride, sulfuric, acetic, hydrofluoric nd phosphoric acids. The alloy has improved thermal stability, fabricability and stress corrosion cracking resistance.                                                                                                                                                                                                                                                                              |                            |                      |                    |                         |      |      |       |      |          |     |
| CLASSIFICATION                              | AWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A 5.14: ERNiMo-10          |                      |                    |                         |      |      |       |      |          |     |
|                                             | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 18274: S Ni 1067(NiMo30Cr) |                      |                    |                         |      |      |       |      |          |     |
|                                             | W.Nr.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2.4695                     |                      |                    |                         |      |      |       |      |          |     |
|                                             | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 43                         |                      |                    |                         |      |      |       |      |          |     |
|                                             | FM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6                          |                      |                    |                         |      |      |       |      |          |     |
| SUITABLE FOR                                | <b>Hastelloy B2, Hastelloy B3 oder B4, Nicrofer® 6629</b><br>NiMo29Cr, NiMo28<br>2.4600, 2.4617<br>UNS N 10629, N 10629, N10665<br>ASTM: B 333, B 335, B 564, B 619, B 622, B 626                                                                                                                                                                                                                                                                                                                                                                                                                           |                            |                      |                    |                         |      |      |       |      |          |     |
| APPROVALS                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |                      |                    |                         |      |      |       |      |          |     |
| WELDING POSITIONS                           |        |                            |                      |                    |                         |      |      |       |      |          |     |
| TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%) | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Si                         | Mn                   | Cr                 | Ni                      | Mo   | Ti   | V     | Fe   | W        | Co  |
|                                             | 0.001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.08                       | 0.59                 | 1.54               | 67.2                    | 28.6 | 0.05 | 0.008 | 1.44 | 0.5      | 0.3 |
| MECHANICAL PROPERTIES                       | Heat Treatment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | R <sub>P0,2</sub> (MPa)    | R <sub>m</sub> (MPa) | A <sub>5</sub> (%) | Impact Energy (J) ISO-V |      |      |       |      | Hardness |     |
|                                             | As Welded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 540                        | 820                  | 45                 | RT                      |      |      |       |      | 195      |     |
|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |                      |                    |                         |      |      |       |      | HRc      |     |
| REDRYING                                    | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                      |                    |                         |      |      |       |      |          |     |
| GAS ACC. EN ISO 14175                       | I1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                      |                    |                         |      |      |       |      |          |     |