



# CEWELD ER 80S-B2 Tig

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |                      |                    |                         |          |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------|--------------------|-------------------------|----------|
| TYPE                                              | Copper coated welding rod for welding creep resistant ferritic steels. (ER 80S-B2, G 1CM)                                                                                                                                                                                                                                                                                                                                       |                         |                      |                    |                         |          |
| APPLICATIONS                                      | CEWELD® ER 80S-B2 Tig is a Filler metal for high temperature creep resistant 1.25%Cr0.5%Mo ferritic steel. Preferably used for steels 13CrMo4-5 or ASTM A335 P11/P12. CEWELD® ER 80S-B2 Tig are used for creep resisting applications up to ~550°C. Typical applications in power generation plant include steam piping, turbines and boilers; the alloy also finds applications in the chemical and petro-chemical industries. |                         |                      |                    |                         |          |
| PROPERTIES                                        | The CEWELD® ER 80S-B2 Tig has low levels of tramp elements (e.g. Sn, As, Sb and P) providing a low Bruscato Factor( $X < 10$ ppm)for temper embrittlement resistant applications.                                                                                                                                                                                                                                               |                         |                      |                    |                         |          |
| CLASSIFICATION                                    | AWS                                                                                                                                                                                                                                                                                                                                                                                                                             | A 5.28: ER 80S-B2       |                      |                    |                         |          |
|                                                   | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                          | 21952-B: W 1CM          |                      |                    |                         |          |
|                                                   | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                            | 6                       |                      |                    |                         |          |
|                                                   | FM                                                                                                                                                                                                                                                                                                                                                                                                                              | 3                       |                      |                    |                         |          |
| SUITABLE FOR                                      | For matching 1.25%Cr 0.5%Mo creep resisting ferritic steels.<br>13CrMo4-5, 16CrMo4-4, GS-17CrMo5-5<br>ASTM: A182 grades F11/F12, A199/A200 T11, A217 grades WC6/WC11, A234 grades WP11/WP12, A335 grades P11/P12, A387 grades 11/12                                                                                                                                                                                             |                         |                      |                    |                         |          |
| APPROVALS                                         | CE                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                      |                    |                         |          |
| WELDING POSITIONS                                 |                                                                                                                                                                                                                                                                                                                                               |                         |                      |                    |                         |          |
| TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%) | C                                                                                                                                                                                                                                                                                                                                                                                                                               | Si                      | Mn                   | Cr                 | Mo                      |          |
|                                                   | 0.09                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.6                     | 0.6                  | 1.3                | 0.5                     |          |
| 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 |
|                                                   | 620°C±15°C 1h                                                                                                                                                                                                                                                                                                                                                                                                                   | 560                     | 660                  | 24                 | RT                      |          |
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |                      |                    | 200                     | HRc      |
| REDRYING                                          | Not required                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                      |                    |                         |          |
| GAS ACC. EN ISO 14175                             | I1                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                      |                    |                         |          |



# CEWELD ER 80S-B2 Tig

ER 80S-B2 TIG 1,6MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| Tube      | 5       | 8720663417466 |

ER 80S-B2 TIG 2,0 X  
1000MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| Tube      | 5       | 8720663417480 |

ER 80S-B2 TIG 2,4 X  
1000MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| Tube      | 5       | 8720663417497 |

ER 80S-B2 TIG 3,2 X  
1000MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| Tube      | 5       | 8720663417527 |