

# CEWELD ER 80S-B3L

|                                                        |                                                                                                                                                                                                                                                                                                                                            |                   |     |                            |                         |           |          |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----|----------------------------|-------------------------|-----------|----------|
| TYPE                                                   | Copper coated Solid welding wire for welding creep and hydrogen – resistant steels. ( 2.25% Cr and 1% Mo, B3L Type)                                                                                                                                                                                                                        |                   |     |                            |                         |           |          |
| APPLICATIONS                                           | CEWELD® ER 80S-B3L finds applications in the chemical industry, in the ammonia synthesis process, for heat exchangers, boilers, piping, and pressure vessels for temperature service up to about 600°C. It will also find applications in the petro-chemical industries, as it is suitable for facing on castings and for casting repairs. |                   |     |                            |                         |           |          |
| PROPRIÉTÉS                                             | CEWELD® ER 80S-B3L is a low alloy copper-coated TIG rod with 2.25% Cr and 1% Mo content, with low carbon content (less than 0.05%), to be used for welding creep resistant steels.                                                                                                                                                         |                   |     |                            |                         |           |          |
| CLASSIFICATION                                         | AWS                                                                                                                                                                                                                                                                                                                                        | A 5.28: ER80S-B3L |     |                            |                         |           |          |
|                                                        | EN ISO                                                                                                                                                                                                                                                                                                                                     | 21952-B: G 2C1ML  |     |                            |                         |           |          |
|                                                        | F-nr                                                                                                                                                                                                                                                                                                                                       | 6                 |     |                            |                         |           |          |
|                                                        | FM                                                                                                                                                                                                                                                                                                                                         | 3                 |     |                            |                         |           |          |
| CONVIENT POUR                                          | For 2.5%Cr-1%Mo-alloyed, heat-resistant, ferritic steels of the same type.<br>1.7380, 1.7379<br>10CrMo 9-10, G-17CrMo 9-10, GS-18 CrMo 9 10<br>ASTM: A182 F22, A199/A200 grades T21/T22, A213 T22, A217 WC9, A234 WP22, A335 P22, A387 grades 21/22<br>AFNOR/BSI: 10CD9-10, SS7380, 10H2M, B.S. grade 45, K21390, K21590, J22091, J21890   |                   |     |                            |                         |           |          |
| AGRÉMENTS                                              | CE                                                                                                                                                                                                                                                                                                                                         |                   |     |                            |                         |           |          |
| POSITIONS DE SOUDAGE                                   |                                                                                                                                                                                                                                                         |                   |     |                            |                         |           |          |
| ANALYSE CHIMIQUE<br>TYPIQUE DU MÉTAL DE<br>SOUDURE (%) | C                                                                                                                                                                                                                                                                                                                                          | Si                | Mn  | P                          | S                       | Cr        | Mo       |
|                                                        | 0.03                                                                                                                                                                                                                                                                                                                                       | 0.6               | 0.6 | 0.015                      | 0.015                   | 2.5       | 1        |
| PROPRIÉTÉS MÉCANIQUES                                  | Heat Treatment                                                                                                                                                                                                                                                                                                                             |                   |     | R <sub>P0,2</sub><br>(MPa) | R <sub>m</sub><br>(MPa) | A5<br>(%) | Hardness |
|                                                        | 690°C±15°C 1h                                                                                                                                                                                                                                                                                                                              |                   |     | 490                        | 560                     | 18        | HRc      |
| ETUVAGE                                                | Not required                                                                                                                                                                                                                                                                                                                               |                   |     |                            |                         |           |          |
| GAS ACC. EN ISO 14175                                  | M21                                                                                                                                                                                                                                                                                                                                        |                   |     |                            |                         |           |          |