



CEWELD ER 80S-B2

| TYPE | Copper coated welding wire for welding creep resistant ferritic steels.(ER 80S-B2, G 1CM) | | | | | | | | | | | | | | | | |
|---|--|----------------|-------------------------|----------------------|--------------------|-------------------------|--------------------|----------|-------------------------|-----|-----------------|-----|-----|----|----|--|-----|
| APPLICATIONS | CEWELD® ER 80S-B2 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 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 | CEWELD® ER 80S-B2 has low levels of tramp elements (eg. Sn, As, Sb and P) providing a low Bruscato Factor(X< 10 ppm)for temper embrittlement resistant applications. | | | | | | | | | | | | | | | | |
| CLASSIFICATION | <table border="0"> <tr> <td>AWS</td> <td>A 5.28: ER 80S-B2</td> </tr> <tr> <td>EN ISO</td> <td>21952-B: G 1CM</td> </tr> <tr> <td>F-nr</td> <td>6</td> </tr> <tr> <td>FM</td> <td>3</td> </tr> </table> | AWS | A 5.28: ER 80S-B2 | EN ISO | 21952-B: G 1CM | F-nr | 6 | FM | 3 | | | | | | | | |
| AWS | A 5.28: ER 80S-B2 | | | | | | | | | | | | | | | | |
| EN ISO | 21952-B: G 1CM | | | | | | | | | | | | | | | | |
| F-nr | 6 | | | | | | | | | | | | | | | | |
| FM | 3 | | | | | | | | | | | | | | | | |
| SUITABLE FOR | <p>Typ 1Cr0,5Mo, ISO 15608: ~5,1 1.7205, 1.7218, 1.7225, 1.7228, 1.7254, 1.7258, 1.7262, 1.7335, 1.7337, 1.7350, 1.7354, 1.7357, 1.7728 13CrMoV42, 13CrMo4-4, 13CrMo4-5, 15CrMo3, 15CrMo5, 13CrMoV42, 15Cr3, 16MnCr5, 20MnCr5, 15CrMo5, 24CrMo5, 25CrMo4, GS-22CrMo5, GS-22CrMo54, GS 17CrMo5-5, 16CrMoV4, 42CrMo4, 42CrMo4V, 41CrMo4V, ASTM A 182 Gr. F11 / F12; A 193 Gr. B7; A 213 Gr. T12; A 217 Gr. WC6; A 234 Gr. WP11; A335 Gr. P11, P12; A 336 Gr. F11, F12; A 426 Gr. CP12 ; A 199; A200; A 387 Gr A11 / 12</p> | | | | | | | | | | | | | | | | |
| APPROVALS | CE | | | | | | | | | | | | | | | | |
| 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>Mo</th> </tr> </thead> <tbody> <tr> <td>0.09</td> <td>0.6</td> <td>0.6</td> <td>1.3</td> <td>0.5</td> </tr> </tbody> </table> | C | Si | Mn | Cr | Mo | 0.09 | 0.6 | 0.6 | 1.3 | 0.5 | | | | | | |
| C | Si | Mn | Cr | Mo | | | | | | | | | | | | | |
| 0.09 | 0.6 | 0.6 | 1.3 | 0.5 | | | | | | | | | | | | | |
| 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 colspan="2">RT</th> </tr> </thead> <tbody> <tr> <td>660°C- 700°C 1h</td> <td>470</td> <td>560</td> <td>20</td> <td colspan="2">80</td> <td>HRc</td> </tr> </tbody> </table> | Heat Treatment | R _{P0,2} (MPa) | R _m (MPa) | A ₅ (%) | Impact Energy (J) ISO-V | | Hardness | RT | | 660°C- 700°C 1h | 470 | 560 | 20 | 80 | | HRc |
| Heat Treatment | R _{P0,2} (MPa) | | | | | R _m (MPa) | A ₅ (%) | | Impact Energy (J) ISO-V | | Hardness | | | | | | |
| | | RT | | | | | | | | | | | | | | | |
| 660°C- 700°C 1h | 470 | 560 | 20 | 80 | | HRc | | | | | | | | | | | |
| REDRYING | Not required | | | | | | | | | | | | | | | | |
| GAS ACC. EN ISO 14175 | M21 | | | | | | | | | | | | | | | | |



CEWELD ER 80S-B2

ER 80S-B2 0,8MM

| Packaging | KG/unit | EanCode |
|-----------|---------|---------------|
| BS-300 | 15 | 8720663424327 |

ER 80S-B2 1,0MM

| Packaging | KG/unit | EanCode |
|-----------|---------|---------------|
| BS-300 | 15 | 8720663417442 |

ER 80S-B2 1,2MM

| Packaging | KG/unit | EanCode |
|-----------|---------|---------------|
| BS-300 | 15 | 8720663417459 |