



# CEWELD SG Ni3,5

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                      |                    |                         |       |       |          |
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| TYPE                                              | Solid MIG wire for extra low temperature applications. ( Ni3,5 )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                      |                    |                         |       |       |          |
| APPLICATIONS                                      | CEWELD® SG Ni3,5 was developed for fine-grain steels and low-temperature steels. Typical applications are welding boilers for liquid petrol gas (LPG). For cryogenic construction steels and Ni bearing low temperature steels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                      |                    |                         |       |       |          |
| PROPERTIES                                        | CEWELD® SG Ni3.5 is a copper-coated, Ni-alloyed (3,5% Ni) solid wire for low temperature steels with a minimum yield strength > 550 Mpa. The wire offers excellent impact strength down to -70°C. (-80°C >27 J)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                      |                    |                         |       |       |          |
| CLASSIFICATION                                    | AWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A 5.28: ER 80S-Ni3        |                      |                    |                         |       |       |          |
|                                                   | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 14341-B: G 57P 7 M22 SN71 |                      |                    |                         |       |       |          |
|                                                   | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6                         |                      |                    |                         |       |       |          |
|                                                   | FM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1                         |                      |                    |                         |       |       |          |
| SUITABLE FOR                                      | <b>ReH ≤ 550 MPa ISO 15608: 1.2 (275 &lt; ReH &lt; 360 MPa), 1.3 (ReH &gt; 360 MPa &lt; 550 MPa), 2.2 ReH &gt; 460 MPa</b><br>1.0531,1.0984, 1.0986, 1.8900, 1.8901, 1.8902, 1.8903, 1.8904, 1.8905, 1.8907, 1.8910, 1.8912, 1.8915, 1.8917, 1.8926, 1.8930, 1.8932, 1.8935, 1.8937, 1.8986, 1.8970, 1.8971, 1.8972, 1.8973, 1.8975<br>11MnNi5-3, 13MnNi6-3, 12Ni14, S460N, S420N, S460NL, P460N, StE 420, StE 460, StE 500, StE 550 TStE 380, S420NL, P460NL1, P420NH, P460NH, TStE 420, TStE 460, TStE 500,TStE 550 WStE 380, WStE 420, WStE 460, WStE 500, WstE 550, StE 385.7, StE 385.7 TM, StE 415, L485ME<br>ASTM A 203 Gr. D, E; A 350 Gr. LF1, LF2, LF3; A 420 Gr. WPL3, WPL6; A 516 Gr. 60, 65, 70; A 572 Gr. 42, 50, 55, 60, 65; A 633 Gr. A, D, E; A 662 Gr. A, B, C; A 707 Gr. L1, L2, L3; A 738 Gr. A; A 841 A, B, C; API 5 L X52, X60, X65, X52Q, X60Q, X65Q<br>Oceanfit 52, Oceanfit 60, Oceanfit 65, Oceanfit 355, Oceanfit 420, Oceanfit 460, PAS 460-550, alform® 500 M, 550 M, aldur 500 Q, 500 QL, aldur 550 Q, 550 QL |                           |                      |                    |                         |       |       |          |
| APPROVALS                                         | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                      |                    |                         |       |       |          |
| WELDING POSITIONS                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                      |                    |                         |       |       |          |
| TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%) | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Si                        | Mn                   | P                  | S                       | Ni    | Cu    |          |
|                                                   | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.6                       | 1                    | 0.01               | 0.01                    | 3.5   | 0.12  |          |
| 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 |
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                      |                    | -50°C                   | -60°C | -70°C |          |
|                                                   | As Welded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 570                       | 640                  | 24                 | 95                      | 60    | 45    | HRc      |
| REDRYING                                          | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                      |                    |                         |       |       |          |
| GAS ACC. EN ISO 14175                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                      |                    |                         |       |       |          |