



# CEWELD AA R500 PIPE

| TYPE                                        | Seamless rutile flux cored wire with < 1% Ni, for FCAW orbital welding ( H2-Ready ) S480 and X80 steel grades. ( Type E 81-T1, T 50 4 )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------|----------------------|--------------------|-------------------------|----------|--------------------|-------------------------|----------|-------|-------|-----|-----|
| APPLICATIONS                                | CEWELD® AA R500 PIPE is a seamless rutile cored wire with very good modelling properties that is ideal for constrained position welding with higher amperages. Particularly suitable for orbital welding and generally for welding on weld pool protection in all positions, even with high heat input. CEWELD® AA R500 PIPE is suitable for the following applications: Pipeline and tank construction ( H2-Ready ), steel and shipbuilding as well as offshore and onshore applications.                                                                                                                                                                                                                                                                                                                                                                                               |                |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |
| PROPERTIES                                  | <p>CEWELD® AA R500 PIPE is ideal for welding in all positions with higher currents. Can be used down to -40°C (-60°C). It has low spatter losses and remarkably easy slag removal. Due to the seamless manufacturing process, the content of diffusible hydrogen in the weld metal is extremely low (on average less than 3 ml/100 g). For the entire storage and processing time, &lt; 4 ml/100 g is guaranteed according to AWS.</p> <p>EN -ISO 17632-A: T 50 4 Mn1Ni P M21 1 H5 ( for &gt; 1.5 kJ/mm ) EN -ISO 18276-A: T 55 4 Mn1Ni P M21 1 H5 ( for &lt; 1.5 kJ/mm ) ASME -AWS A 5. 36: E81T1-M21A4-Ni1-H4 ( for &gt; 1.5 kJ/mm ) ASME - AWS A 5.36: E91T1-M21A4-Ni1-H4 ( for &lt; 1.5 kJ/mm )</p>                                                                                                                                                                                  |                |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |
| CLASSIFICATION                              | <p>AWS     A 5.36: E81T1-M21A8-Ni1-H4, A 5.36: E91T1-M21A8-Ni1-H4</p> <p>EN ISO   17632-A: T 50 4 Mn1Ni P M21 1 H5, 18276-A: T 55 4 Mn1Ni P M21 1 H5</p> <p>F-nr     6</p> <p>FM       1</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |
| SUITABLE FOR                                | <p><b>ReH ≤ 500 MPa ISO 15608: 1.1, 1.3, 2.1, 2.2 (ReH max. 500 MPa), 3.1 (ReH max. 500 MPa)</b></p> <p>1.0580 to 1.0070, 1.8900 to 1.8905, 1.8930 to 1.8935, 1.8910 to 1.8915, 1.6217, 1.6210, 1.0481, 1.0482, 1.0551, 1.0553.</p> <p>S275N-S460N, S275NL-S460NL, S275M-S460M, S275ML-S460ML, P355N, P355NH, P460N, P460NH, P275NL1-P460NL1, P275NL2- P460NL2, L360NB, L415NB, L360MB-L450MB, L360QB-L450QB</p> <p>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, X70Q</p> <p>Oceanfit 52, Oceanfit 60, Oceanfit 65, Oceanfit 355, Oceanfit 420, Oceanfit 460, alform plate 460M; durostat 400, 450, 500, durostat B2, aldur 500Q, aldur 500QL, aldur 500QL1, N-A-XTRA 56</p> |                |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |
| APPROVALS                                   | CE, TÜV: (19713)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |
| WELDING POSITIONS                           | <div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |
| TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%) | <table><tr><td>C</td><td>Si</td><td>Mn</td><td>P</td><td>S</td><td>Ni</td></tr><tr><td>0.08</td><td>0.5</td><td>1.5</td><td>0.015</td><td>0.015</td><td>0.9</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | C              | Si                      | Mn                   | P                  | S                       | Ni       | 0.08               | 0.5                     | 1.5      | 0.015 | 0.015 | 0.9 |     |
| C                                           | Si                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Mn             | P                       | S                    | Ni                 |                         |          |                    |                         |          |       |       |     |     |
| 0.08                                        | 0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.5            | 0.015                   | 0.015                | 0.9                |                         |          |                    |                         |          |       |       |     |     |
| MECHANICAL PROPERTIES                       | <table><tr><th rowspan="2">Heat Treatment</th><th rowspan="2">R<sub>p0.2</sub> (MPa)</th><th rowspan="2">R<sub>m</sub> (MPa)</th><th rowspan="2">A<sub>5</sub> (%)</th><th>Impact Energy (J) ISO-V</th><th rowspan="2">Hardness</th></tr><tr><th>-40°C</th></tr><tr><td>As Welded</td><td>575</td><td>644</td><td>26</td><td>90</td><td>HRc</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Heat Treatment | R <sub>p0.2</sub> (MPa) | R <sub>m</sub> (MPa) | A <sub>5</sub> (%) | Impact Energy (J) ISO-V | Hardness | -40°C              | As Welded               | 575      | 644   | 26    | 90  | HRc |
| Heat Treatment                              | R <sub>p0.2</sub> (MPa)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                         |                      |                    | R <sub>m</sub> (MPa)    |          | A <sub>5</sub> (%) | Impact Energy (J) ISO-V | Hardness |       |       |     |     |
|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -40°C          |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |
| As Welded                                   | 575                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 644            | 26                      | 90                   | HRc                |                         |          |                    |                         |          |       |       |     |     |
| REDRYING                                    | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |
| HEAT INPUT                                  | HI>1,5kJ/mm: T 50 4 Mn1Ni P M21 1 H5 HI<1,5kJ/mm: T 55 4 Mn1Ni P M21 1 H5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |
| GAS ACC. EN ISO 14175                       | M21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                         |                      |                    |                         |          |                    |                         |          |       |       |     |     |



# CEWELD AA R500 PIPE

AA R500 PIPE 1,2MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| BS-300    | 15      | 8720663423689 |
| D-200     | 5       | 8720663400055 |