



# CEWELD AA R460

| TYPE                                                   | Fil fourré, rutile micro-allié pour CO2 et M21.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                         |                      |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------|----------------------|--------------------|-------------------------|--------------------|----------|-------------------------|-------|-----------|-----|-----|----|----|----|-----|
| APPLICATIONS                                           | Construction navale, construction d'acier et de navires, ingénierie mécanique et travaux de tuyauterie.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                         |                      |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
| PROPRIÉTÉS                                             | Excellente manipulation de la flaque de soudure grâce à la congélation rapide du laitier, soudage hors position supérieur même à des courants plus élevés. Température d'utilisation jusqu'à -40°C. Particulièrement adapté au soudage orbital MAG et au soudage toutes positions sur support céramique. Perte de projections extrêmement faible, élimination facile du laitier et teneur en hydrogène inférieure à 3 ml/100g, même après un long stockage non conditionné.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                         |                      |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
| CLASSIFICATION                                         | AWS A 5.20: E71T-1M-J H4, A 5.36: E71T1-M21A4-CS1-H4, A 5.36: E71T1-1CA0-CS1-H4<br>EN ISO 17632-A: T 46 4 P M21 1 H5, 17632-A: T 42 2 P C1 1 H5<br>F-nr 6<br>FM 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                         |                      |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
| CONVIENT POUR                                          | <b>Reh ≤ 460 MPa ISO 15608: 1.2 (275 &lt; ReH &lt; 360 MPa), 1.3 (ReH &gt; 360 MPa &lt; 460 MPa)</b><br>1.0409, 1.0421, 1.0426, 1.0429, 1.0430, 1.0436, 1.0473, 1.0481, 1.0482, 1.0484, 1.0505, 1.0545, 1.0546, 1.0562, 1.0566, 1.0570, 1.0578, 1.0581, 1.0582, 1.1138, 1.5419, 1.8948, 1.8900, 1.8901, 1.8902, 1.8903, 1.8905, 1.8907, 1.8910, 1.8912, 1.8915, 1.8917, 1.8930, 1.8932, 1.8935, 1.8937, 1.8970, 1.8971, 1.8972<br>S235JR-S355JR, S235JO-S355JO, S450JO, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH- P355GH, P275NL1-P460NL1, P215NL, P265NL, P355N, P285NH-P460NH, P195TR1-P265TR1, P195TR2- P265TR2, P195GH-P265GH, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE240<br>AH32, AH36, AH40; DH32, DH36, DH40; EH32, EH36, EH40; FH32. FH36, FH40<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, alform plate 460M; durostat 400, 450, durostat B2 |                |                         |                      |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
| AGRÉMENTS                                              | CE, TÜV: (12704), Lloyds, DNV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                         |                      |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
| POSITIONS DE SOUDAGE                                   | <div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                         |                      |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
| ANALYSE CHIMIQUE<br>TYPIQUE DU MÉTAL DE<br>SOUDURE (%) | <table><tr><td>C</td><td>Si</td><td>Mn</td><td>P</td><td>S</td></tr><tr><td>0.08</td><td>0.5</td><td>1.3</td><td>0.015</td><td>0.015</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | C              | Si                      | Mn                   | P                  | S                       | 0.08               | 0.5      | 1.3                     | 0.015 | 0.015     |     |     |    |    |    |     |
| C                                                      | Si                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mn             | P                       | S                    |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
| 0.08                                                   | 0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.3            | 0.015                   | 0.015                |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
| PROPRIÉTÉS MÉCANIQUES                                  | <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 colspan="2">Impact Energy (J) ISO-V</th><th rowspan="2">Hardness</th></tr><tr><th>-20°C</th><th>-40°C</th></tr><tr><td>As Welded</td><td>490</td><td>580</td><td>25</td><td>90</td><td>70</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 | -20°C                   | -40°C | As Welded | 490 | 580 | 25 | 90 | 70 | HRc |
| Heat Treatment                                         | R <sub>P0,2</sub> (MPa)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                         |                      |                    | R <sub>m</sub> (MPa)    | A <sub>5</sub> (%) |          | Impact Energy (J) ISO-V |       | Hardness  |     |     |    |    |    |     |
|                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -20°C          | -40°C                   |                      |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
| As Welded                                              | 490                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 580            | 25                      | 90                   | 70                 | HRc                     |                    |          |                         |       |           |     |     |    |    |    |     |
| ETUVAGE                                                | Non requis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                         |                      |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |
| GAS ACC. EN ISO 14175                                  | M21, C1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                         |                      |                    |                         |                    |          |                         |       |           |     |     |    |    |    |     |



# CEWELD AA R460

## AA R460 1,0MM

| Packaging | KG/unit  | EanCode       |
|-----------|----------|---------------|
| D-200     | 20 (4x5) | 8720663423597 |
| K-300     | 16       | 8720663423610 |

## AA R460 1,2MM

| Packaging | KG/unit  | EanCode       |
|-----------|----------|---------------|
| BS-300    | 16       | 8720663423627 |
| D-200     | 20 (4x5) | 8720663423603 |

## AA R460 1,4MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| K-300     | 16      | 8720663423634 |

## AA R460 1,6MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| K-300     | 16      | 8720663423641 |