



CEWELD AA M460

| TYPE | Seamless metal-powder cored wire without slag for M21 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|----------------|-------------------------|----------------------|----------------------------|-------------------------|--------------------|-------------------------|----------|-------|----------|-------|-----------|-----|-----|----|-----|----|----|-----|---------------|-----|-----|----|----|----|----|-----|
| APPLICATIONS | Steel construction, shipbuilding, pressure vessels, mechanical engineering, pipe work, offshore, crane building, heavy transport, lifting equipment etc. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PROPERTIES | Seamless metal cored wire with remarkable stable arc and no spatters. Excellent for use in automated welding applications such as orbital Mag or robotic welding. This wire offers a unique approval class at most third parties that enables you to use only one wire to cover more procedures up to 460 MPa yield strength steels. CEWELD AA M460 can also be used for constructions that needs post weld heat treatment after welding and still offers mechanical properties confirming 5Y46 class. Due to the seamless production process the hydrogen content is below 3ml/100gr weld metal even after long storage. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CLASSIFICATION | <table border="0"> <tr> <td>AWS</td> <td>A 5.18: E70C-6M H4</td> </tr> <tr> <td>EN ISO</td> <td>17632-A: T 46 6 M M21 1 H5</td> </tr> <tr> <td>F-nr</td> <td>6</td> </tr> <tr> <td>FM</td> <td>1</td> </tr> </table> | AWS | A 5.18: E70C-6M H4 | EN ISO | 17632-A: T 46 6 M M21 1 H5 | F-nr | 6 | FM | 1 | | | | | | | | | | | | | | | | | | | |
| AWS | A 5.18: E70C-6M H4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EN ISO | 17632-A: T 46 6 M M21 1 H5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F-nr | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FM | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUITABLE FOR | <p>Reh ≤ 460 MPa (67 ksi) ISO 15608: 1.2, 1.3, 2.1 1.5637, 1.6217, 1.6228, 1.0044-1.09821.0035 - 1.0570, 1.0345, 1.0425, 1.0481, 1.0308 - 1.0581, 1.0307 - 1.0582, 1.0440, 1.0472, 1.0475, 1.0416 to 1.0551 10Ni14, 12Ni14, 13MnNi6-3, 15NiMn6, 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, A, B, D, E, A 32-E 36 ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 350 Gr. LF1; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 516 Gr. 55, 60, 65, 70; A 573 Gr. 58, 65, 70; A 588 Gr. A, B; A 633 Gr. C, E; A 662 Gr. B; A 711 Gr. 1013; A 841 Gr. A; API 5 L Gr. B, X42, X52, X56, X60, X65 Domex 315-460MC, MC Plus, ML</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVALS | TÜV: 12706, CE, Lloyds, DNV | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WELDING POSITIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%) | <table border="1"> <thead> <tr> <th>C</th> <th>Si</th> <th>Mn</th> <th>P</th> <th>S</th> </tr> </thead> <tbody> <tr> <td>0.05</td> <td>0.7</td> <td>1.5</td> <td>0.015</td> <td>0.015</td> </tr> </tbody> </table> | C | Si | Mn | P | S | 0.05 | 0.7 | 1.5 | 0.015 | 0.015 | | | | | | | | | | | | | | | | | |
| C | Si | Mn | P | S | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.05 | 0.7 | 1.5 | 0.015 | 0.015 | | | | | | | | | | | | | | | | | | | | | | | | |
| 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="3">Impact Energy (J) ISO-V</th> <th rowspan="2">Hardness</th> </tr> <tr> <th>-20°C</th> <th>-40°C</th> <th>-60°C</th> </tr> </thead> <tbody> <tr> <td>As Welded</td> <td>510</td> <td>620</td> <td>24</td> <td>100</td> <td>80</td> <td>55</td> <td>HRc</td> </tr> <tr> <td>580°C±15°C 2h</td> <td>475</td> <td>620</td> <td>26</td> <td>70</td> <td>60</td> <td>55</td> <td>HRc</td> </tr> </tbody> </table> | Heat Treatment | R _{p0,2} (MPa) | R _m (MPa) | A ₅ (%) | Impact Energy (J) ISO-V | | | Hardness | -20°C | -40°C | -60°C | As Welded | 510 | 620 | 24 | 100 | 80 | 55 | HRc | 580°C±15°C 2h | 475 | 620 | 26 | 70 | 60 | 55 | HRc |
| Heat Treatment | R _{p0,2} (MPa) | | | | | R _m (MPa) | A ₅ (%) | Impact Energy (J) ISO-V | | | Hardness | | | | | | | | | | | | | | | | | |
| | | -20°C | -40°C | -60°C | | | | | | | | | | | | | | | | | | | | | | | | |
| As Welded | 510 | 620 | 24 | 100 | 80 | 55 | HRc | | | | | | | | | | | | | | | | | | | | | |
| 580°C±15°C 2h | 475 | 620 | 26 | 70 | 60 | 55 | HRc | | | | | | | | | | | | | | | | | | | | | |
| REDRYING | Not required | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAS ACC. EN ISO 14175 | M21 | | | | | | | | | | | | | | | | | | | | | | | | | | | |



CEWELD AA M460

AA M460 1,0MM

| Packaging | KG/unit | EanCode |
|-----------|---------|---------------|
| BS-300 | 16 | 8720663423368 |
| D-200 | 5 | 8720663423313 |

AA M460 1,2MM

| Packaging | KG/unit | EanCode |
|-----------|----------|---------------|
| BS-300 | 16 | 8720663423375 |
| D-200 | 20 (4x5) | 8720663423320 |
| Drum | 300 | 8720663423344 |

AA M460 1,6MM

| Packaging | KG/unit | EanCode |
|-----------|---------|---------------|
| D-760 | 270 | 8720663423337 |
| Drum | 250 | 8720663423351 |
| K-300 | 16 | 8720663423382 |