


| CATEGORY                                          | GMAW Solid wires                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|--------------|-------------------------|--------------------|-----------------------|--------------------|--------------------|---------|-------------------------|-------------|-------------|-----------------|------------|------------|--------------|-----|-------|--------|-----------------------|--------------|--------------------|-----|-------|--------|-----------------------|--------------|--------------------|-----|-------|---------|-----------------------|--------------|--------------------|
| TYPE                                              | Solid stainless steel welding wire for dissimilar welding. ( Type 1.4432, 23 12 LSi )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| APPLICATIONS                                      | CEWELD 309LSi is for buffer layers before hard facing, dissimilar joints between ferritic and austenitic steels and or difficult to weld steels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| PROPERTIES                                        | High mechanical properties and very good weldability due to a ingreased silicon content, suitable for operating temperatures from -120°C up to 300°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| CLASSIFICATION                                    | AWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | A 5.9: ER309LSi       |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
|                                                   | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 14343-A: G 23 12 L Si |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
|                                                   | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 6                     |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
|                                                   | FM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5                     |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
|                                                   | W.Nr.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.4332                |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| SUITABLE FOR                                      | <b>ISO 15608: 8.1 Austenit ≤ 19 % Cr , TÜV 1000: Gr. 21-30, 23% Cr, 12%Ni Type</b><br>1.2780, 1.4541, 1.4550, <b>1.4710, 1.4712</b> , 1.4713, 1.4724, 1.4729, 1.4740, 1.4741, 1.4742, 1.4746, 1.4762, 1.4745, <b>1.4825, 1.4826, 1.4828, 1.4832, 1.4878</b> ,<br>X15CrNiSi20 12, G-X 40 CrNiSi20 9,<br>AISI 446, AISI442, AISI309,<br>UNS S30900, S44200, S44600                                                                                                                                                                                                                                                                                                                                                                                                               |                       |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| APPROVALS                                         | TÜV (12395.00) 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>Ni</th> </tr> </thead> <tbody> <tr> <td>0.02</td> <td>0.8</td> <td>1.8</td> <td>24.1</td> <td>12.85</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |                       |              |                         | C                  | Si                    | Mn                 | Cr                 | Ni      | 0.02                    | 0.8         | 1.8         | 24.1            | 12.85      |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| C                                                 | Si                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mn                    | Cr                    | Ni           |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| 0.02                                              | 0.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.8                   | 24.1                  | 12.85        |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| ALL WELD MECHANICAL PROPERTIES                    | <table border="1"> <thead> <tr> <th>Heat Treatment</th> <th>R<sub>p0,2</sub> MPa</th> <th>R<sub>m</sub> MPa</th> <th>A<sub>5</sub> (%)</th> <th>RT</th> <th>Impact Energy (J) ISO-V</th> </tr> </thead> <tbody> <tr> <td>As Welded /</td> <td>440</td> <td>600</td> <td>37</td> <td>160</td> <td>-110°C<br/>90</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |                       |              |                         | Heat Treatment     | R <sub>p0,2</sub> MPa | R <sub>m</sub> MPa | A <sub>5</sub> (%) | RT      | Impact Energy (J) ISO-V | As Welded / | 440         | 600             | 37         | 160        | -110°C<br>90 |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| Heat Treatment                                    | R <sub>p0,2</sub> MPa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | R <sub>m</sub> MPa    | A <sub>5</sub> (%)    | RT           | Impact Energy (J) ISO-V |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| As Welded /                                       | 440                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 600                   | 37                    | 160          | -110°C<br>90            |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| WELDING PARAMETERS / PACKING                      | <table border="1"> <thead> <tr> <th>WELDING PARAMETERS</th> <th>WELDING PARAMETERS</th> <th>WELDING PARAMETERS</th> <th>PACKING</th> <th>PACKING</th> <th>PACKING</th> </tr> <tr> <th>D (MM)</th> <th>VOLTAGE (V)</th> <th>CURRENT (A) DC+</th> <th>SPOOL TYPE</th> <th>KG / SPOOL</th> <th>KG / PALLET</th> </tr> </thead> <tbody> <tr> <td>0,8</td> <td>15-24</td> <td>55-160</td> <td>D-200 / BS-300 / DRUM</td> <td>5 / 15 / 250</td> <td>1000 / 1080 / 1000</td> </tr> <tr> <td>1,0</td> <td>15-28</td> <td>80-240</td> <td>D-200 / BS-300 / DRUM</td> <td>5 / 15 / 250</td> <td>1000 / 1080 / 1000</td> </tr> <tr> <td>1,2</td> <td>15-29</td> <td>100-300</td> <td>D-200 / BS-300 / DRUM</td> <td>5 / 15 / 250</td> <td>1000 / 1080 / 1000</td> </tr> </tbody> </table> |                       |                       |              |                         | WELDING PARAMETERS | WELDING PARAMETERS    | WELDING PARAMETERS | PACKING            | PACKING | PACKING                 | D (MM)      | VOLTAGE (V) | CURRENT (A) DC+ | SPOOL TYPE | KG / SPOOL | KG / PALLET  | 0,8 | 15-24 | 55-160 | D-200 / BS-300 / DRUM | 5 / 15 / 250 | 1000 / 1080 / 1000 | 1,0 | 15-28 | 80-240 | D-200 / BS-300 / DRUM | 5 / 15 / 250 | 1000 / 1080 / 1000 | 1,2 | 15-29 | 100-300 | D-200 / BS-300 / DRUM | 5 / 15 / 250 | 1000 / 1080 / 1000 |
| WELDING PARAMETERS                                | WELDING PARAMETERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WELDING PARAMETERS    | PACKING               | PACKING      | PACKING                 |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| D (MM)                                            | VOLTAGE (V)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CURRENT (A) DC+       | SPOOL TYPE            | KG / SPOOL   | KG / PALLET             |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| 0,8                                               | 15-24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 55-160                | D-200 / BS-300 / DRUM | 5 / 15 / 250 | 1000 / 1080 / 1000      |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| 1,0                                               | 15-28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 80-240                | D-200 / BS-300 / DRUM | 5 / 15 / 250 | 1000 / 1080 / 1000      |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| 1,2                                               | 15-29                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 100-300               | D-200 / BS-300 / DRUM | 5 / 15 / 250 | 1000 / 1080 / 1000      |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| REDRYING TEMPERATURE                              | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |
| GAS ACCORDING EN 14175                            | M11, M13, M12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                       |                       |              |                         |                    |                       |                    |                    |         |                         |             |             |                 |            |            |              |     |       |        |                       |              |                    |     |       |        |                       |              |                    |     |       |         |                       |              |                    |