



**UNIWEELD IND. DE ELETRODOS LTDA**

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**COMMERCIAL NAME: ESSEN MS 716 B**

**STANDARD: AWS A5.1: 2012 E 7016 / ASME SFA5.1 E 7016 Edition 2015**

**Revision: 00**

**Date: 07/2016**

| Chemical characteristic of the deposited metal | C             | Mn            | V             | Si            | P              | S              | Ni            | Cr            | Mo            |
|--|---------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|
|  | 0.15%<br>Max. | 1.60%<br>Max. | 0.08%<br>Max. | 0.75%<br>Max. | 0.035%<br>Max. | 0.035%<br>Max. | 0.30%<br>Max. | 0.20%<br>Max. | 0.30%<br>Max. |

| <b>APPLICATION FIELD</b>           | Special electrode with low hydrogen basic coating, weldable in all positions, with a mean penetration. Due have less tendency to crack is indicated for the electrode with a thickness above 1 inch steel. and high mechanical stresses.   |               |              |              |              |              |                 |        |         |         |         |                       |   |   |   |   |
|------------------------------------|--|---------------|--------------|--------------|--------------|--------------|-----------------|--------|---------|---------|---------|-----------------------|---|---|---|---|
| <b>TECHNICAL CHARACTERISTICS</b>   | Electrode with excellent arc stability, weldable in all positions, produces deposit with quality and cords with a good appearance.   |               |              |              |              |              |                 |        |         |         |         |                       |   |   |   |   |
| <b>MECHANICAL PROPERTIES</b>       | <p><b>Tensile strength:</b> 490 MPa (min.)<br/> <b>Yield strength:</b> 400 MPa (min.)<br/> <b>Stretching:</b> 22% (min.)</p>   |               |              |              |              |              |                 |        |         |         |         |                       |   |   |   |   |
| <b>OPERATIONAL CHARACTERISTICS</b> | <b>welding position:</b> All the positions   |               |              |              |              |              |                 |        |         |         |         |                       |   |   |   |   |
|                                    | <b>Type of current:</b> AC or DC +   |               |              |              |              |              |                 |        |         |         |         |                       |   |   |   |   |
|                                    | <table border="1"> <thead> <tr> <th>Diameter (mm)</th> <th>Ø 2.50 x 350</th> <th>Ø 3.25 x 350</th> <th>Ø 4.00 x 350</th> <th>Ø 5.00 x 450</th> </tr> </thead> <tbody> <tr> <td><b>Amps (A)</b></td> <td>80-110</td> <td>110-140</td> <td>150-190</td> <td>200-250</td> </tr> <tr> <td><b>Packaging (kg)</b></td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> </tr> </tbody> </table> | Diameter (mm) | Ø 2.50 x 350 | Ø 3.25 x 350 | Ø 4.00 x 350 | Ø 5.00 x 450 | <b>Amps (A)</b> | 80-110 | 110-140 | 150-190 | 200-250 | <b>Packaging (kg)</b> | 5 | 5 | 5 | 5 |
|                                    | Diameter (mm)  | Ø 2.50 x 350  | Ø 3.25 x 350 | Ø 4.00 x 350 | Ø 5.00 x 450 |              |                 |        |         |         |         |                       |   |   |   |   |
| <b>Amps (A)</b>                    | 80-110   | 110-140       | 150-190      | 200-250      |              |              |                 |        |         |         |         |                       |   |   |   |   |
| <b>Packaging (kg)</b>              | 5  | 5             | 5            | 5            |              |              |                 |        |         |         |         |                       |   |   |   |   |
|                                    |  |               |              |              |              |              |                 |        |         |         |         |                       |   |   |   |   |
| <b>WELDING TECHNIQUE</b>           | Thoroughly clean the area to be welded with grinder or mechanical brushing removing all traces of contamination, for scale, oils and oxides, regulate the amperage in relation to the diameter of the rod that will be used to maintain the short arc with the electrode perpendicular to the metal base.  |               |              |              |              |              |                 |        |         |         |         |                       |   |   |   |   |