AI-0315

Specifications
AWS/ASME 11C SFA 5.11: ENiCrFe-2
DIN 1736: S-NiCr15FeNb

Description and Applications
Basic coated electrode for welding Ni-base alloys, of the NiCr type, together or to stainless or mild steels. Also used for joining and cladding of various clad steels, 9% nickel alloys, cryogenic alloys and a wide range of other nickel alloys. Especially suited for welding of dissimilar combinations and thicknesses, particularly where heavy sections, crack sensitive designs and high or low temperature service is a feature. Maximum operating temperature approximately 850° C. Joining Ni alloyed steels used in the low temperature fields such as 9% Ni steel.

Typical Weldmetal Analysis

<table>
<thead>
<tr>
<th>C</th>
<th>Mn</th>
<th>Si</th>
<th>Cr</th>
<th>Ni</th>
<th>Fe</th>
<th>Mo</th>
<th>Nb</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.08</td>
<td>2.80</td>
<td>0.40</td>
<td>15.00</td>
<td>Bal</td>
<td>8.50</td>
<td>1.70</td>
<td>1.70</td>
</tr>
</tbody>
</table>

Mechanical Properties of Weldmetal

<table>
<thead>
<tr>
<th></th>
<th>As Welded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength</td>
<td>650MPa</td>
</tr>
<tr>
<td>Yield Strength (0.2%)</td>
<td>400MPa</td>
</tr>
<tr>
<td>Elongation</td>
<td>35% (4d)</td>
</tr>
<tr>
<td>Charpy V</td>
<td>80J (-196° C)</td>
</tr>
</tbody>
</table>

Welding Parameters

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Current type</th>
<th>Amps</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5</td>
<td>DC / AC</td>
<td>50-70</td>
</tr>
<tr>
<td>3.2</td>
<td>DC / AC</td>
<td>70-95</td>
</tr>
<tr>
<td>4.0</td>
<td>DC / AC</td>
<td>90-120</td>
</tr>
<tr>
<td>5.0</td>
<td>DC / AC</td>
<td>120-160</td>
</tr>
</tbody>
</table>

Welding Positions

Disclaimer
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