BÖHLER AWS E71T1-M/C
RUTILE FLUX CORED WIRE FOR GENERAL STEEL CONSTRUCTION

All positional welding with one parameter setting
With the extremely efficient rutile flux cored wire by Böhler Welding, fabricators have the perfect welding consumable for highest productivity in welding. It features user friendly welding characteristics in all positions, with one diameter and same parameter settings.

The BÖHLER AWS E71T1-M/C is characterized by highest productivity and provides significant savings in time and economical aspects when used for positional welding. This filler material allows fabricators to enter a new era in productive, high quality welding.

<table>
<thead>
<tr>
<th>Product features</th>
<th>Product benefits</th>
<th>User benefits</th>
</tr>
</thead>
</table>
| Designed chemistry     | » Excellent mechanical properties  
                        » Easy slag removal  
                        » Low spatter loss  
                        » Smooth, finely rippled bead surface  
                        » All positional welding  
                        » Can be used under mixed gas (Ar + 15-25%CO₂) or with 100% CO₂ with fast freezing slag system  
                        » Can be used for steel grades up to yield strength of 460 MPa (67 ksi) | » Less post weld cleaning  
                        » Flexibility to use different shielding gases  
                        » Easy Handling  
                        » Wide parameter box |
| Productivity           | » The product performs to the highest productivity                              | » Significant savings in time and economical aspects  
                        » User friendly welding characteristics in all positions with one wire diameter and same parameter setting. |

Typical applications
» General steel construction  
» Shipbuilding
## BÖHLER AWS E71T1-M/C

### Classifications

<table>
<thead>
<tr>
<th>EN ISO 17632-A</th>
<th>AWS A5.36</th>
</tr>
</thead>
<tbody>
<tr>
<td>T 46 2 P C1 H5</td>
<td>E71T1-C1A2-CS1-H8</td>
</tr>
<tr>
<td>T 46 2 P M211 H10</td>
<td>E71T1-M21A2-CS1-H8</td>
</tr>
</tbody>
</table>

### Operating data

<table>
<thead>
<tr>
<th>Welding positions</th>
<th>Polarity</th>
<th>Shielding gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC+</td>
<td>M21</td>
<td>C1</td>
</tr>
</tbody>
</table>

### Typical chemical composition, all weld metal, wt. %

<table>
<thead>
<tr>
<th>Shielding gas</th>
<th>C</th>
<th>Si</th>
<th>Mn</th>
</tr>
</thead>
<tbody>
<tr>
<td>M21</td>
<td>0.04</td>
<td>0.50</td>
<td>1.40</td>
</tr>
<tr>
<td>C1</td>
<td>0.04</td>
<td>0.45</td>
<td>1.30</td>
</tr>
</tbody>
</table>

### Mechanical properties, all weld metal (single values typical)

<table>
<thead>
<tr>
<th>Shielding gas</th>
<th>Condition</th>
<th>Yield strength $R_{p0.2}$ (MPa)</th>
<th>Tensile strength $R_m$ (MPa)</th>
<th>Elongation $A$ (L$_0 = 5d_0$) (%)</th>
<th>CVN Impact toughness ISO-V KV J $+20$ °C (J)</th>
<th>$–20$ °C (J)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M21</td>
<td>As welded</td>
<td>530 (≥ 460)</td>
<td>600 (530 – 680)</td>
<td>28 (≥ 20)</td>
<td>130</td>
<td>100 (≥ 47)</td>
</tr>
<tr>
<td>C1</td>
<td>As welded</td>
<td>480 (≥ 460)</td>
<td>540 (530 – 680)</td>
<td>30 (≥ 20)</td>
<td>110</td>
<td>90 (≥ 47)</td>
</tr>
</tbody>
</table>

### Steels to be welded

**EN**
- Steels up to a yield strength of 460 MPa (67 ksi)

**ASTM**
- A 106 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

### Approvals

TÜV, DB, DNV-GL, ABS, LR, CE

### Overview diameters and packaging

**Wire basket BS300**
- Weight: 16 kg
- Precision layer wound
- Dimensions:
  - ø external: 300 mm
  - ø Pinhole: 52 mm
  - Width: 100 mm
- Diameter: 1.2 mm
- SAP code: 39319

**Black plastic spool S300**
- Weight: 15 kg
- Precision layer wound
- Dimensions:
  - ø external: 300 mm
  - ø Pinhole: 52 mm
  - Width: 110 mm
- Diameter: 1.2 mm
- SAP code: 39322