VAUTID 100T
Tubular wire and welding rod
Hardfacing material for high abrasion and elevated temperatures

VAUTID Material characteristics

Specification
- Tubular wire electrode
  - DIN EN 14700 T ZFe15 gz
- Welding rod
  - DIN EN 14700 E ZFe15 gz

Material type
- Alloy components: Hard alloy on iron base with high chromium and carbon contents with nickel and molybdenum additions
  - C – Cr – Ni – Mo – Fe

Weld deposit characteristics
- VAUTID 100T produces high wear-resistant, austenitic, primary carbide-containing weld deposit which is highly resistant when subjected mainly to abrasion. The weld deposit is not suited for flame-cutting and cannot be machined. The increased Cr concentrations and additions of Mo and Ni give the weld deposit an increased resistance. Application temperatures should not exceed 550°C.

Weld deposit properties
- Hardness (acc. DIN 32525-4): ca. 55-62 HRC*

Recommended applications
- Perfectly suited for the hardfacing of parts subjected to strong abrasion and average impact at elevated temperatures, e.g. screws, screens, fan impellers and linings, grate bars, coke pushers, sinter and slack crushers

Standard sizes
- Tubular wire:
  - Diameter: 1,2 / 1,6 / 2,0 / 2,4 / 2,8 / 3,2 mm
- Packing:
  - Mandrels: 15 kg
  - Reels: 25 kg
  - Drums: 250 kg
- Welding rods:
  - Diameter: 3,25 / 4,0 / 5,0 / 6,0 mm
- Packing:
  - 5 kg packages

Welding instructions for tubular wires:
VAUTID 100T tubular wires are welded open-arc without inert gas on the +pole (a.c. possible). Weave technique is usual. The arc should be held as short as possible and the thickness of hard-surfacing deposits should be limited to 10 mm. Preheating decreases the generation of stress cracking on the hard-facing.

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Current (A)</th>
<th>Voltage (V)</th>
<th>Stick out (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2</td>
<td>100 – 220</td>
<td>18 – 22</td>
<td>20 – 30</td>
</tr>
<tr>
<td>1,6</td>
<td>150 – 270</td>
<td>24 – 27</td>
<td>20 – 40</td>
</tr>
<tr>
<td>2,0</td>
<td>200 – 310</td>
<td>25 – 28</td>
<td>25 – 40</td>
</tr>
<tr>
<td>2,4</td>
<td>230 – 250</td>
<td>26 – 29</td>
<td>25 – 50</td>
</tr>
<tr>
<td>2,8</td>
<td>260 – 420</td>
<td>27 – 29</td>
<td>30 – 55</td>
</tr>
<tr>
<td>3,2</td>
<td>290 – 470</td>
<td>28 – 30</td>
<td>30 – 55</td>
</tr>
</tbody>
</table>

Welding positions (EN ISO 6947): PA, PB

Welding instructions for welding rods:
VAUTID 100T welding rods can be welded with d.c. on the +pole but also with a.c. It is not necessary to re-dry the electrodes prior to welding. VAUTID 100T welding rods are high-performance electrodes with a deposition rate of 210%.

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Voltage (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,25</td>
<td>100 – 120</td>
</tr>
<tr>
<td>4,0</td>
<td>120 – 160</td>
</tr>
<tr>
<td>5,0</td>
<td>170 – 210</td>
</tr>
<tr>
<td>6,0</td>
<td>210 – 250</td>
</tr>
</tbody>
</table>

* subject to common industrial fluctuations

This data sheet corresponds to the present state of production (October 2016) and can be changed anytime.

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