VAUTID 70
Tubular wire and welding rod
Hardfacing material for high impact, shock and abrasion

**VAUTID Material characteristics**

**Specification**
- Tubular wire electrode
  - DIN EN 14700 T Fe6 gp
- Welding rod
  - DIN EN 14700 E Fe6 gp

**Material type**
- Tube wire electrode
  - Medium-alloyed, martensitic Cr–Mo–C hard alloy on iron base with Ti special carbides
  - C – Cr – Mo – Ti – Fe

**Weld deposit characteristics**
- VAUTID 70 produces a hardened welding deposit resistant to abrasion and impact. The weld deposit is magnetic and cannot be machined in welding conditions. Machining of the annealed material is possible.
- Crack-free hardfacings up to 10 mm thickness are possible

**Weld deposit properties**
- Hardness 1st layer on S235JR: approx. 42 – 48 HRC*
- Hardness (acc. DIN 32525-4): approx. 50 – 56 HRC*

**Recommended applications**
- Perfectly suited for parts subjected to combined shock and abrasive stresses as well as metal-to-metal wear: percussion borers, pick hammers, dredger teeth, crusher rolls and guide rails. Also suited for the hardfacing of tools including those for hot forming. Resistant to heat wear up to approx. 670° C

**Standard sizes**
- Tubular wires: 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 70 tubular wires are slagging and are welded without inert gas on the +pole. Both the weave bead and stinger bead techniques can be used. Weaving and preheating prevent cracking. The thickness of the surfacing should be limited to 10 mm.

**Diameter (mm)** | **Current (A)** | **Voltage (V)** | **Stick out (mm)**
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1,2 | 100 – 220 | 18 – 22 | 20 – 30
1,6 | 160 – 250 | 22 – 24 | 20 – 35
2,0 | 180 – 300 | 22 – 24 | 25 – 40
2,4 | 240 – 380 | 26 – 28 | 30 – 45
2,8 | 300 – 470 | 26 – 28 | 30 – 50
3,2 | 290 – 470 | 28 – 30 | 30 – 55

**Welding instructions for welding rods:**
- VAUTID 70 welding rods are slagging and can be welded with d.c. on the +pole but also with a.c. The thickness of the surfacing should be limited to 10 mm.
- It is not necessary to re-dry the electrodes prior to welding.

**Diameter (mm)** | **Current (A)**
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3,25 | 100-120
4,0 | 120-160
5,0 | 170-210
6,0 | 230-250

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