

BÖHLER FOX EV 40

Unalloyed, basic coated stick electrode

Main benefit:

Basic coated stick electrode for unalloyed steels with very low yield strength up to 355 MPa.



| Product features | Product benefits | User benefits |
|---|---|---|
| » Basic coated | » High impact values | » High-quality welds, suitable also for very low service temperatures |
| » Low hydrogen content < 4 ml/mg all weld metal | » Avoids hydrogen induced cracks | » Safe joints, no repair welds necessary |
| » very ductile weld metal with high elongation | » No hardness peaks due to very "flexible" weld metal | » Join welding parts with a very fast heat flow, e.g. hot tapping |



Typical application

- » Hot Tapping (welding of flanges and tee-pipes in operation)
- » Hot Tapping of storage pressure vessels
- » Steel construction
- » Root pass welding whenever high toughness and a low strength and/or low hardness is required

BÖHLER FOX EV 40 is a stick electrode with a very „flexible“ weld metal. The low hydrogen content together with the high ductile weld metal and the high elongation results in crack resistant joints also when the heat flow rate is high.

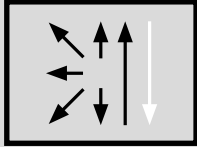
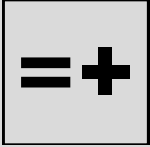
Hardness peaks in the weld seam often are the result when welding such applications.

The ductile weld metal with a mix-up with the base material on the boarder of the seam avoids these peaks and allows especially at the root pass safe and crack-free joints.

As a typical application, I want to point out the Hot Tapping technology, welding valves or tapping pipes on the main pipe while it is still under operation. The medium in the pipe (water, gas...) generates a huge heat flow and a fast cooling of the weld seam.

In addition, of course also "simple" applications for steel constructions when the request is a ductile but not high strength weld.

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| Classifications | | Operating data | |
|-----------------|------------------------|--|---|
| EN ISO 2560-A | AWS AWS A5.5 / SFA-5.5 | Welding positions | Polarity |
| E 35 4 B 4 2 H5 | E6018 (mod.) |  |  |

| Typical analysis of all weld metal, wt. % | | |
|---|-----|-----|
| C | Si | Mn |
| 0.06 | 0.3 | 1.0 |

| Mechanical properties, all weld metal (single values typical) | | | | | |
|---|---------------------------------------|----------------------------------|---------------------------------------|------------------------------------|-----------------------------|
| Condition | Yield strength $R_{p0.2\%}$ MPa | Tensile strength R_m MPa | Elongation A ($L_0 = 5d_0$) % | CVN Impact toughness ISO-V KV J | |
| Untreated, As welded | 380 (≥ 355) | 500 (440 - 570) | 30 (≥ 22) | 170 | 120 (≥ 47) -40 °C |

| Steels to be welded | |
|---|--|
| EN | ASTM |
| Steels up to a yield strength of 355 MPa S235JR-E295, S235J2G3 - S355J2G3, C22, P235T1-P275T1, P235T2, P275T2, L210 - L320, L290MB - L320MB, P235G1TH, P255G1TH, P235GH, P265GH, P295GH, S235JRS1 - S235J4S, S355G1S - S355G3S, S255N - S355N, P255NH-P355NH, S255NL - S355NL, GE200-GE240 | ASTM A 27 u. A36 Gr. all; A214; A 242 Gr.1-5; A266 Gr. 1, 2, 4; A283 Gr. A, B, C, D; A285 Gr. A, B, C; A299 Gr. A, B; A328; A366; A515 Gr. 60, 65, 70; A516 Gr. 55; A570 Gr. 30, 33, 36, 40, 45; A 572 Gr. 42, 50; A606 Gr. all; A607 Gr. 45; A656 Gr. 50, 60; A668 Gr. A, B; A907 Gr. 30, 33, 36, 40; A841; A851 Gr. 1, 2; A935 Gr.45; A936 Gr. 50; API 5 L Gr. B, X42-X52 |

| Approvals |
|-----------|
| CE |

| Carton Packaging | |
|---|---|
|  | Weight: ~ 4.1 kg Diameter: 2.5 x 250 mm 3.2 x 350 mm 4.0 x 350 mm |