# BÖHLER FOX EV 47

Stick electrode, mild steel, basic coated

## Classifications

| EN ISO 2560-A | EN ISO 2560-B | AWS A5.1M | AWS A5.1 / SFA-5.1 |
|---|---|---|---|
| E 38 4 B 4 2 H5 | E4916-1 A U H5 | E4916-1 H4R | E7016-1 H4R |

## Characteristics and typical fields of application

Basic coated electrode for high-quality welds. Good weldability in all positions except vertical-down. Metal recovery about 110%. Very low hydrogen content (according AWS condition HD < 4 ml/100g weld metal). Weld metal extremely ductile, crack resistant and ageing resistant thus especially suited for rigid welds with heavy seam cross sections.

## Base materials

Steels up to a yield strength of 380 MPa (52 ksi)
S235JR-S355JR, S235J0-S355J0, S235J2-S355J2, S275N-S355N, S275M-S355M, P235GH-P355GH, P355N, P275NL1-P355NL1, P215NL, P265NL, P285NH-P355NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L360NB, L245MB-L360MB, GE200-GE240
Ship-building steels: A, B, D, E, A 32-E 36
ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 350 Gr. LF1, LF2; 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. A, C, D; A 662 Gr. A, B, C; A 678 Gr. A, B; A 711 Gr. 1013; API 5 L Gr. B, X42, X52, X56

## Typical analysis

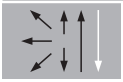
| | C | Si | Mn |
|---|---|---|---|
| wt.-% | 0.06 | 0.3 | 0.9 |

## Mechanical properties of all-weld metal - typical values (min. values)

| Condition | Yield strength $R_e$ | Tensile strength $R_m$ | Elongation A ($L_0$=5$d_0$) | Impact energy ISO-V KV J | | | |
|---|---|---|---|---|---|---|---|
| | MPa | MPa | % | 20°C | -20°C | -40°C | -45°C |
| u | 440 (≥ 380) | 530 (≥ 470 – 600) | 27 (≥ 20) | 200 | 130 | 100 (≥ 47) | ≥ 27 |
| s | 390 (≥ 380) | 490 (≥ 470 – 600) | 29 (≥ 20) | 200 | 150 | 100 (≥ 47) | |

u untreated, as welded
s stress relieved 600 °C/2h / furnace down to 300 °C / air

## Operating data



| | |
|---|---|
| **Polarity** | DC + |
| **Electrode identification** | FOX EV 47 7016-1 E 38 4 B |
| **Redrying** | 300 – 350°C, min. 2h |

| Dimension mm | Current A |
|---|---|
| 2.5 × 250 | 80 – 110 |
| 2.5 × 350 | 80 – 110 |
| 3.2 × 350 | 100 – 140 |
| 3.2 × 450 | 100 – 140 |
| 4.0 × 450 | 130 – 180 |
| 5.0 × 450 | 180 – 230 |
| 6.0 × 450 | 240 – 280 |

## Approvals

TÜV (01098), DB (10.014.09), ABS, BV, DNV, LR, RINA, CE