

# BÖHLER FOX CEL

Stick electrode, mild steel, cellulose coated, pipeline welding

## Classifications

**EN ISO 2560-A**  
 E 38 3 C 2 1

**AWS A5.1 / SFA-5.1**  
 E6010

## Characteristics and typical fields of application

Cellulose electrode for vertical-down welding of large diameter pipelines; suitable for root runs (vertical down and vertical up), hot passes, filler and cover layers. Especially recommended for root run welding. Highly economical compared with vertical-up welding. Apart from its excellent welding and gap bridging characteristics FOX CEL offers a weld deposit with outstanding impact strength values and thus offers the benefit of still more safety in field welding of pipelines. BÖHLER FOX CEL can be used in sour gas applications (HIC-Test acc. NACE TM-02-84). Test values for SSC-test are available too.

## Base materials

S235JR, S275JR, S235J2G3, S275J2G3, S355J2G3, P235GH, P265GH, P355T1, P235T2-P355T2, L210NB - L415NB, L290MB - L415MB, P235G1TH, P255G1TH

Root pass up to L555NB, L555MB

API Spec. 5 L: A, B, X 42, X 46, X 52, X 56, Root pass up to X 80

## Typical analysis of all-weld metal

|       | C    | Si   | Mn  |
|-------|------|------|-----|
| wt.-% | 0.12 | 0.14 | 0.5 |

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

| Condition              | Yield strength R <sub>e</sub><br>MPa | Tensile strength R <sub>m</sub><br>MPa | Elongation A (L <sub>0</sub> =5d <sub>0</sub> )<br>% | Impact values ISO-V KV J |     |       |           |
|------------------------|--------------------------------------|--|--|--------------------------|-----|-------|-----------|
|                        |                                      |  |  | 20°C                     | 0°C | -20°C | -30°C     |
| u                      | 450 (≥ 380)                          | 550 (470 – 600)                        | 26 (≥ 22)  | 100                      | 90  | 70    | 55 (≥ 47) |
| u untreated, as welded |                                      |  |  |                          |     |       |           |

## Operating data



|                                 |                             |
|---------------------------------|-----------------------------|
| <b>Polarity</b>                 | DC +/-, Minuspol für Wurzel |
| <b>Electrode identification</b> | FOX CEL 6010 E 38 2 C       |
| <b>Redrying</b>                 | not allowed                 |

| Dimension mm | Current A |
|--------------|-----------|
| 2.5 × 250    | 50 – 90   |
| 2.5 × 300    | 50 – 90   |
| 3.2 × 350    | 80 – 130  |
| 4.0 × 350    | 120 – 180 |
| 5.0 × 350    | 160 – 210 |

## Approvals

TÜV (01281), DNV GL, CE