



Stick electrode, low-alloyed, cellulose coated, pipeline welding

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| EN ISO 2560-A | EN ISO 2560-B | AWS A5.5 / SFA-5.5 | AWS A5.5M | | | | |
|------------------|---------------|--------------------|-----------|--|--|--|--|
| E 50 3 1Ni C 2 5 | E5710-G A | E9010-G | E6210-G | | | | |
| | | E9010-P1 | E6210-P1 | | | | |

Characteristics and typical fields of application

Cellulose-coated electrode for vertical-down welding of high strength large diameter pipelines. Highly economical compared with conventional vertical-up welding. Especially recommended for hot passes, filler and cover layers. The special design of the coating and the core wire guarantees the highest metallurgical quality and soundness of the weld metal deposit with excellent mechanical properties. The electrode allows good weld pool visability, and easy manipulation, as well as high safety margins against porosity and slag inclusions.

BÖHLER FOX CEL 90 can be used in sour gas applications (HIC-Test acc. to NACE TM-02-84). Test values for SSC-test are available too.

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|--|----------------------------------|------------------------------------|---------------------------|------------------------------------|--------------------------|------------------|-------------------|----------------|-----------|--|
| Base mater | ials | | | | | | | | | |
| L450MB, L48 API Spec. 5 L: | 5MB X 65, X 70, (X 8 | 60) | | | | | | | | |
| Typical ana | lysis | | | | | | | | | |
| | С | C | | Si | | Mn | | Ni | | |
| wt% | 0.17 | 0.17 | | 0.15 | | 0.9 | | 0.8 | | |
| Mechanical properties of all-weld metal - typical values (min. values) | | | | | | | | | | |
| Condition | Yield strength R _e | Tensile strength R _m | Elongation A $(L_0=5d_0)$ | Impact energy | Impact energy ISO-V KV J | | | | | |
| | MPa | MPa | % | 20°C | 0°C | | -20°C | -30°C | -40°C | |
| u | 560 (≥ 530) | 650 (620 – 720) | 21 (≥ 18) | 100 | 90 | | 75 | 65 (≥ 47) | 40 | |
| u untreated, as welded | | | | | | | | | | |
| Operating d | lata | | | | | | | | | |
| | Polarity | Polarity | | DC (+) | | Dimension mm | | Current A | Current A | |
| | | | | FOX CEL 90 9010-P1 E 50 3 1Ni C | | 4.0 × 350 | | 120 - 180 | 120 – 180 | |
| | identifica | | | | | 5.0×350 | | 160 - 210 | 160 - 210 | |
| Approvals | | | | | | | | | | |

TÜV (01324.), CE