

EN 499:1994: E 38 3 C 2 1
AWS A5.1-04: E6010
AWS A5.1M-04: E4310

BÖHLER FOX CEL

SMAW stick electrode for vertical-down welding,
cellulosic coated, pipe welding

Description

Cellulose-coated electrode for vertical-down welding of large diameter pipelines; suitable for root runs, 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. It can be used in sour gas applications (HIC-Test acc. NACE TM-02-84). Test values for SSC-test are available too.

Typical Composition of All-weld Metal

wt-%	C	Si	Mn
	0.12	0.14	0.5

Mechanical Properties of All-weld Metal

(*)	u	
yield strength R_e N/mm ² :	450	(≥ 390)
tensile strength R_m N/mm ² :	520	(470 - 540)
elongation A ($L_0 = 5d_0$) %:	26	(≥ 22)
impact work ISO-V KV J		(≥ 70)
+ 20 °C:	110	
± 0 °C:	105	
- 20 °C:	95	
- 30 °C:	65	(≥ 47)
- 40 °C:	45	

(*) u untreated, as-welded

Operating Data



re-drying: **not allowed**
electrode identification:
FOX CEL 6010 E 38 3 C
preheating and interpass temperature
see Page 2-49

ø mm	L mm	amps A
2.5	250/300	50 - 90
3.2	350	80 - 130
4.0	350	120 - 180
5.0	350	160 - 210



polarity
negative
for root
pass

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

Approvals and Certificates

TÜV-D (1281.), TÜV-A (1), CL (0366), DNV (3), FI (E 38 3 C 21), ISPESL (X), Statoil, UDT,
SEPROZ, PDO; VNIIST(ø3.2-4.0 mm)