

Classifications

AWS A5.1 / SFA-5.1	AWS A5.1M	EN ISO 2560-A	EN ISO 2560-B
E6010	E 4310	E 38 2 C 2 1	E 43 10 A

Characteristics and typical fields of application

Cellulosic electrode for vertical-down welding of large diameter pipelines. Highly recommended for root pass welding on D.C. positive polarity in the vertical down and vertical-up welding positions.

Apart from its good welding and gap bridging characteristics Böhler FOX CEL+ provides a powerful arc with good penetration and smooth root passes with high travel speeds as well as high safety against the formation of piping (hollow bead) and undercut. BÖHLER FOX CEL+ can be used in sour gas applications (HIC-Test acc. to NACE TM-02-84). Test values for SSC-test are available upon request.

Base Materials

S235JR, S275JR, S235J2G3, S275J2G3, S355J2G3, P235GH, P265GH, P355T1, P235T2-P355T2, L210NB – L390NB, L290MB – L390MB, 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

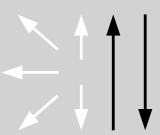
	C	Si	Mn
wt-%	0.17	0.15	0.6

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

Condition	Yield strength	Tensile strength	Elongation A (L ₀ =4d ₀)	Charpy V-Notch (ft•lbf)			
	ksi	ksi	%	+68°F	+32°F	0°F	–20°F
u	65 (≥ 48)	75 (≥ 68)	26 (≥ 22)	77	70	48	37 (≥ 20)

u untreated, as welded

Operating data

	Polarity:	Redrying:	Electrode identification:	Dia.	Length	Amps A
	DC (+) / DC (–)	not allowed	FOX CEL+	3/32"	12"	50 – 90
	negative polarity for root pass possible		6010 E 38 2 C	1/8"	14"	80 – 130
				5/32"	14"	120 – 180

Approvals

CE