

## **BÖHLER FOX CEL 90**

Cellulosic stick electrode, for vertical-down welding, pipe welding

Classifications									
EN ISO 2560-A	EN ISO 2560-B	AWS A5.5	AWS A5.5M						
E 50 3 1Ni C 2 5	E 57 10-G A	E9010-P1	E6210-P1						
		E9010-G	E6210-G						

## 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 & 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.

## **Base materials**

L450MB, L485MB

API Spec. 5 L: X 65, X 70, (X 80)

Typical analysis of all-weld metal														
		C		Si	Si		Mn			Ni	Ni			
wt% 0.17		0.1	0.15		0.9			0.8	0.8					
Mechanical properties of all-weld metal – typical values (min. values)														
Condition	Yield streng R <sub>eH</sub>	th Tensile strength R <sub>m</sub>			Elongation Impact wo $A (L_0=5d_0)$ ISO-V KV									
	MPa		MPa	%		+20	)°C	0°C	-20°C	-20°C -3		2	-40°C	
u	<b>560</b> (≥ 530)	)	<b>650</b> (620 - 720)		<b>21</b> (≥ 18)	100	)	90	90 75		<b>65</b> (≥ 47)		40	
u untreated, as welded														
Operating data														
		Polarity: DC(+)	-	-	d <b>identi</b> FOX 9010-F	Electroc identificat FOX CEL 9010-P1 E 1Ni C		4.0			350 12		<b>mps A</b> D – 180 D – 210	
Approvals														

TÜV (01324.), CE