

Classifications

EN ISO 2560-A	EN ISO 2560-B	AWS A5.5	AWS A5.5M
E 46 5 1Ni B 4 5	E5545-P2 A	E8045-P2	E5545-P2

Characteristics and typical fields of application

Basic electrodes for vertical-down welds of large diameter pipelines and for structural work. Suitable for filler and cover pass welding in pipeline construction. Deposit is extremely crack resistant, and features high toughness and a very low hydrogen content. Deposition rate is 80-100% higher than for vertical up welding. The weld deposit of BÖHLER FOX BVD 85 shows an ideal combination between high strength and cryogenic toughness down to -50°C (-58°F). Special design and development work has enabled this electrode to provide exceptional striking characteristics and the avoidance of start porosity on cover (cap) passes. Due to this and the good welding characteristics this special basic electrode offers easy handling even under field conditions. Böhler Fox BVD 85 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

S235J2G3 - S355J2G3, L290NB - L450NB, L290MB - L450MB, P235GH - P295GH
API Spec. 5 L: A, B, X 42, X 46, X 52, X 56, X 60, X 65

Typical analysis of all-weld metal (wt.-%)

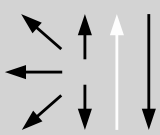
	C	Si	Mn	Ni
wt.-%	0.05	0.4	1.1	0.9

Mechanical properties of all-weld metal

Condition	Yield strength R_e	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact work ISO-V KV J				
	MPa	MPa	%	+20 °C	$\pm 0^{\circ}\text{C}$	-20 °C	-40 °C	-50 °C
u	510 (≥ 460)	560 (550 – 680)	27 (≥ 20)	170	150	120	85	65 (≥ 47)

u untreated, as welded

Operating data

	Polarity:	Redrying if necessary:	Electrode identification:	\varnothing (mm)	L mm	Amps A
	DC (+)			3.2	350	110 – 160
		300 – 350 °C / min. 2 h	FOX BVD 85	4.0	350	180 – 210
			8045-P2 E 46 5 1Ni B	4.5	350	200 – 240

Recommended interpass temperature $> 80^{\circ}\text{C}$

Approvals

TÜV (03531.), SEPROZ, CE