BÖHLER FOX 7018

Basic stick electrode, unalloyed

Classifications

EN ISO 2560-A	AWS A5.1
E 42 4 B 4 2 H5	E7018-H4R

Characteristics and typical fields of application

Basic coated electrode engineered for high-quality welds. Excellent strength and toughness properties down to –40 °C. Also suitable for welding steels with low purity and high carbon content. Metal recovery about 115 %. Good weldability in out-of-position work except for vertical-down. Suitable for welding in steel construction, boiler and container fabrication, vehicle construction, shipbuilding, and machine construction as well as for buffer layers when building up on high carbon steels. Deposit has very low hydrogen content (according to AWS condition HD ≤ 4ml/100g weld metal).

Base materials

S235JR-E335, S235J2G3-S355J2G3, C22, C35, P235T1-P355T1, P235T2, P355T2, L210-L360NB L290MB-L32MB, P235G1TH, P255G1TH, P235GH, P265GH, P295GH, S235JRS1-S235J4S, S355G1S-S355G3S, S255N-S355N, P255NH-P355NH, S255NL-S355NL, GE200-GE260, GE300

ASTM A 27 u. A36 Gr. all; A214; A 242 Gr.1-5; A266 Gr. 1, 2, 4; A283 Gr. A, B, C, D; A285 Gr. A, B, C; A299 Gr. A, B; A328; A366; A515 Gr. 60, 65, 70; A516 Gr. 55; 60, 65, 70; A570 Gr. 30, 33, 36, 40, 45; A 572 Gr. 42, 50; A606 Gr. all A607 Gr. 45; A656 Gr. 50, 60; A668 Gr. A, B; A907 Gr. 30, 33, 36, 40; A841; A851 Gr. 1, 2; A935 Gr.45; A936 Gr. 50; API 5 L Gr. B, X42, X52

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

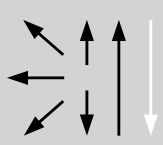
	C	Si	Mn
wt-%	0.07	0.5	1.1

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	–20 °C	–40 °C
u	**490** (≥ 420)	**560** (500 – 640)	**27** (≥ 20)	**200**	**150**	≥ 47
s	**430**	**520**	**29**	**200**	**150**	≥ 47

u untreated, as welded
s stress relieved 600 °C/2h / furnace down to 300 °C/air

Operating data



Polarity:	Redrying if necessary:	Electrode identification:	ø (mm)	L mm	Amps A
DC (+)	300 – 350 °C / min. 2 h	FOX 7018	2.0	250	50 – 70
			2.5	250/350	80 – 110
			3.2	350/450	100 – 140
			4.0	450	130 – 180
			5.0	450	180 – 230
			6.0	450	240 – 290

Approvals

ABS, DNV (3 YH5), LR, LTSS, CE