BÖHLER FOX 2.5 Ni

Basic stick electrode, low-alloyed, cryogenic application

Classifications

EN ISO 2560-A	EN ISO 2560-B	AWS A5.5	AWS A5.5M
E 46 8 2Ni B 42 H5	E4918-N5 A H5	E8018-C1H4R	E5518-C1H4R

Characteristics and typical fields of application

Basic Ni-alloyed electrode for unalloyed and Ni-alloyed fine grained construction steels. Tough, crack resistant weld deposit. Low temperature toughness to –80 °C.

Good weldability in all position except vertical down. Very low hydrogen content (acc. AWS condition HD < 4 ml/100 g weld metal).

Base materials

Cryogenic constructional steels and Ni-steels, cryogenic steels for ship building

10Ni14, 12Ni14, 13MnNi6-3, 15NiMn6, S275N-S460N, S275NL-S460NL, S275M-S460M, S275ML-S460ML, P275NL1-P460NL1, P275NL2-P460NL2

ASTM A 203 Gr. D, E; A 333 Gr. 3; A334 Gr. 3; A 350 Gr. LF1, LF2, LF3; A 420 Gr. WPL3, WPL6; A 516 Gr. 60, 65; AA 529 Gr. 50; A 572 Gr. 42, 65; A 633 Gr. A, D, E; A 662 Gr. A, B, C; A 707 Gr. L1, L2, L3; A 738 Gr. A; A 841 A, B, C

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

	C	Si	Mn	Ni
wt-%	0.04	0.3	0.8	2.4

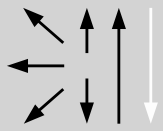
Mechanical properties of all-weld metal

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	–80 °C
u	**490** (≥ 460)	**570** (≥ 530 – 680)	**30** (≥ 20)	**180**	**110** (≥ 47)
s	**470**	**550**	**30**	**200**	

u untreated, as welded

s stress relieved 580 °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 2.5 Ni 8018-C1 E 46 8 2Ni B	2.5	350	70 – 100
			3.2	350	110 – 140
			4.0	450	140 – 180
			5.0	450	190 – 230

Preheat, interpass temperature and post weld heat treatment as required by the base metal.

Approvals

TÜV (00147.), DB (10.014.16), ABS (Ni 2.1/2.6), BV (5Y40), WIWEB, DNV (5 YH10), GL (8Y46), LR (5Y40mH15), RINA (5YH5, 3H5), Statoil, SEPROZ, CE