

EN 1599:1997: E Mo B 4 2 H5
AWS A5.5-96: E7018-A1H4R

BÖHLER FOX DMO Kb

SMAW basic electrode, low-alloyed,
high temperature

Description

Basic low-hydrogen electrode for 0.5 % Mo-alloyed boiler, plates, and tube steels. Approved in long-term condition up to +550 °C service temperature.

For high quality welds of long term stressed components with reliable mechanical properties under high and low temperature conditions. Crack resistant, tough and ageing resistant. Very low hydrogen content (acc. AWS condition HD < 4 ml/100 g). Metal recovery approx. 115 %.

Typical Composition of All-weld Metal

wt-%	C	Si	Mn	Mo
	0.08	0.35	0.8	0.45

Mechanical Properties of All-weld Metal

(*) yield strength R_e N/mm ² :	u	a	
tensile strength R_m N/mm ² :	510 (≥ 480)	520 (≥ 470)	
elongation A ($L_0 = 5d_0$) %:	590 (≥ 560)	600 (≥ 560)	
impact work ISO-V KV J	26 (≥ 22)	25 (≥ 22)	
+ 20 °C:	170 (≥ 120)	170 (≥ 120)	
- 50 °C:	62 (≥ 32)		

(*) u untreated, as-welded
a annealed, 620 °C/2 h/furnace down to 300 °C/air

Operating Data



re-drying if necessary:
300 - 350 °C, min. 2 h
electrode identification:
FOX DMO Kb 7018-A1 E Mo B

ø mm	L mm	amps A
2.5	250/350	80 - 110
3.2	350	100 - 140
4.0	350/450	130 - 180
5.0	450	190 - 230



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

Base Materials

high temperature steels and similar alloyed cast steels, steels resistant to caustic cracking and ageing resistant steels

16Mo3, S355J2G3, E295, E335, P255G1TH, L320 - L415NB, L320MB - L415MB, S255N, P295GH, P310GH, 15NiCuMoNb5, 20MnMoNi4-5, 17MnMoV6-4, S255N - S500N, S255NH - S500NH, S255NL - S500NL, GE240 - GE300, 22Mo4, GP240GH
ASTM A335 Gr. P1; A161-94 Gr. T1; A217 Gr. WC1; A182M Gr. F1; A204M Gr. A, B, C; A250M Gr. T1

Approvals and Certificates

TÜV-D (0019.), KTA 1408.1 (8053.00), DB (10.014.14), ÖBB, TÜV-A (71), ABS (E 7018-A1), DNV (NV 0,3Mo), FI (E Mo B 42 H5), GL (15 Mo 3), RMR (-), Statoil, LTSS, VUZ, SEPROZ, CRS (3YH10), CE

Same Alloy Filler Metals

SMAW electrode:	FOX DMO Kb	SAW combination:	EWS 2 Mo/BB 24
GTAW rod:	DMO-IG		EWS 2 Mo/BB 25
GMAW solid wire:	DMO-IG	Gas welding rod:	DMO
Flux cored wire:	DMO Ti-FD		