

Revisionsnummer: 2

Classifications

EN ISO 3580-A	EN ISO 3580-B	EN ISO 2560-A	EN ISO 2560-B
E Mo B 4 2 H5	E4918-1M3 H5	E 46 5 Mo B 4 2 H5	E4918-1M3 A U H5
AWS A5.5 / SFA-5.5	AWS A5.5M		
E7018-A1 H4	E4918-A1 H4		

Characteristics and typical fields of application

Böhler FOX DMO k bis a core wire alloyed stick electrode with basic coating. The 0.5 Mo type weld metal microstructure exhibit acicular ferrite and bainite with favorable mechanical properties in the as welded and post weld heat treated condition. The range of application covers joint welding of similar alloyed creep resistant steel and steel casting up to joining of high strength structural, fine grained and pipeline steels. Böhler FOX DMO kb is approved for application under creep condition at design temperatures up to 550°C. Impact energy is excellent down to temperatures < 50°C. The optimized coating of Böhler FOX DMO kb results in minimal moisture pick up and guarantees low level of diffusible hydrogen in the weld metal and a metal recovery of 115 %.

Base materials

Creep resistant steels and similar alloyed cast steels, steels resistant to caustic cracking and non ageing steels
 16Mo3, 20MnMoNi4-5, 15NiCuMoNb5, S235JR-S355JR, S235JO-S355JO, S450JO, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH-P355GH, P355N, P285NH-P460NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE300
 ASTM A 29 Gr. 1013, 1016; A 106 Gr. C; A, B; A 182 Gr. F1; A 234 Gr. WP1; A 283 Gr. B, C, D; A 335 Gr. P1; A 501 Gr. B; A 533 Gr. B, C; A 510 Gr. 1013; A 512 Gr. 1021, 1026; A 513 Gr. 1021, 1026; A 516 Gr. 70; A 633 Gr. C; A 678 Gr. B; A 709 Gr. 36, 50; A 711 Gr. 1013; API 5 L B, X42, X52, X60, X65:


Typical analysis

	C	Si	Mn	Mo
wt.-%	0.08	0.4	0.8	0.5

Mechanical properties of all-weld metal - typical values (min. values)

Zustand	Dehngrenze R _{p0.2}		Zugfestigkeit R _m	Dehnung A (L ₀ =5d ₀)		Kerbschlagarbeit ISO-V KV J	
	MPa		MPa	%	20°C	-50°C	
as welded	490 (≥ 460)		590 (530 – 680)	24 (≥ 22)	170	50 (≥ 47)	
620°C / 2h	480 (≥ 460)		580 (530 – 680)	27 (≥ 22)	160 (≥ 47)	75 (≥ 47)	

Operating data

	Polarity	DC+	Dimension mm	Current A
	Electrode identification	FOX DMO Kb 7018-A1 E Mo B	2.5 × 250	80 – 110
			2.5 × 350	80 – 110
			3.2 × 350	100-140
			4.0 × 350/450	130-180
			5.0 × 450	190-230

Preheating, interpass temperature, and post-weld heat treatment as required by the base metal. Preheating can normally recommended to be in a range of 100-250°C depending on the wall thickness. Common post weld heat treatments are carried out between 530 and 620°C

Approvals

TÜV (00019), KTA 1408.1 (8053), DB (10.014.82), ABS, DNV GL, CE