



BÖHLER FOX CM 5 Kb

Stick electrode, low-alloyed, creep resistant

SMAW

Classifications

EN ISO 3580-A
E CrMo5 B 4 2 H5

AWS A5.5 / SFA-5.5
E8018-B6 H4 R

Characteristics and typical fields of application

Basic coated, core wire alloyed electrode for creep resistant steels, suited in pressure vessels and in the crude oil industry. Preferably suited for X12CrMo5 (5 Cr 0.5 Mo) steels. Approved in long-term condition up to +650 °C service temperature. High crack resistance, very low hydrogen content (acc. AWS condition HD < 4 ml/100 g). Good weldability in all positions except vertical down. The weld deposit is heat treatable. Metal recovery approximately 115 %.

Base materials

Creep resistant steels and similar alloyed cast steels, QT-steels similar alloyed up to 1180 MPa tensile strength

1.7362 X12CrMo5

ASTM A 182 Gr. F5; A 193 Gr. B5; A 213 Gr. T5; A217 Gr. C5; A 234 Gr. WP5; A 314 Gr. 501; A335 Gr. P5 u. P5c; A 369 Gr. FB 5; A 387 Gr. 5; A 426 Gr. CP5

Typical analysis of all-weld metal

wt.-%	C	Si	Mn	Cr	Mo
	0.08	0.3	0.8	5.0	0.6

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

Condition	Yield strength R _{p0.2} MPa	Tensile strength R _m MPa	Elongation A (L ₀ =5d ₀) %	Impact values ISO-V KV J 20°C
a	520 (≥ 460)	620 (≥ 590)	21 (≥ 17)	90 (≥ 47)
a2	≥ 460	≥ 590	≥ 17	
v	440	580	26	110

a annealed, 730 °C/2h / furnace down to 300 °C / air

a2 annealed, 760 °C/1h/ furnace down to 200 °C / air

v quenched/tempered 960 °C/0.5 h / oil 730 °C/0.5 h / furnace down to 300 °C / air

Operating data

	Polarity	DC +	Dimension mm	Current A
	Electrode identification	FOX CM 5 Kb 8018-B6 E CrMo 5 B	2.5 × 250	70 – 90
	Redrying	300-350°C/2h	3.2 × 350	110 – 130
			4.0 × 350	140 – 170

Preheat and interpass temperatures 300 – 350°C. post-weld annealing at 730 – 760°C for at least 1 hour followed by cooling in furnace down to 300°C and still air.

Approvals

TÜV (00725), CE