BÖHLER FOX CM 5 Kb

Stick electrode, basic coated, creep resistant

Classifications

EN ISO 3580-A	EN ISO 3580-B	AWS A5.5M	AWS A5.5 / SFA-5.5
E CrMo5 B 4 2 H5	E5518-5CM H5	E5518-B6 H4R	E8018-B6 H4R

Characteristics and typical fields of application

BÖHLER FOX CM 5 kb is a covered electrode with basic coating for shielded metal arc welding. The 5Cr-0.6Mo type weld metal exhibits a martensitic-bainitic microstructure with favorable mechanical properties in tempered and quenched and tempered condition. The range of application covers joint welding of similar alloyed creep resistant steel and steel casting in thermal power and chemical industry. Approved for long-term service under creep condition up to 650 °C. The basic coating guarantees low level of diffusible hydrogen in the weld metal and a metal recovery of approximately 115 %.

Base materials

similar alloyed creep resistant steels and alloyed cast steels like
1.7362 X11CrMo5, 1.7365 GX15CrMo5, 1.7353 GS-12CrMo19-5, 1.7373 X7CrMo6-1, 1.7374 X11CrMo6-1
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

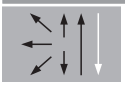
	C	Si	Mn	Cr	Mo
wt.-%	0.08	0.3	0.8	5.0	0.6

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

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact energy ISO-V KV J	
	MPa	MPa	%	20°C	-10°C
T 1	520 (≥ 460)	620 (≥ 550)	21 (≥ 17)	130 (≥ 47)	100
T 2	470 (> 460)	590 (> 550)	21 (> 17)	150 (> 47)	150
QT	440	580	26	110	

T1: tempered (730 °C / 2 h)
T2: tempered (760 °C / 1 h)
QT: quenched and tempered (960 °C / 0.5 h / oil + 730 °C / 0.5 h)

Operating data



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

Preheating, interpass temperature, and post-weld heat treatment as required by the base metal. Preheating can normally be recommended being in a range of 150 to 350 °C depending on the wall thickness. Common post weld heat treatments are carried out between 730 and 760 °C.

Approvals

TÜV (00725), CE