BÖHLER FOX DCMV

Basic stick electrode, low-alloyed, creep resistant

Classifications

EN ISO 3580-A	AWS A5.5	AWS A5.5M
E ZCrMoV1 B 4 2 H5	E9018-G	E6218-G

Characteristics and typical fields of application

Basic electrode for highly stressed joint and production welds on GS-17 CrMoV5-10 type high temperature cast steel used in the construction of steam turbines and valve casings. Approved in long- term condition up to +600 °C service temperature.

High creep rupture strength thanks to the C, Cr, Mo and V-content. High fracture toughness, low hydrogen content, good welding characteristics. The deposit is heat treatable. Metal recovery approx. 115 %.

Base materials

Similar alloyed creep resistant steels and cast steels
1.7706 G17CrMoV5-10

Typical analysis of all-weld metal

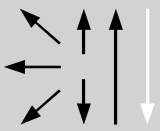
	C	Si	Mn	Cr	Mo	V
wt.-%	0.12	0.30	0.9	1.2	1.0	0.22

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 work ISO-V KV J
	MPa	MPa	%	+20 °C
u	**720**	**1000**	**12**	**22**
a	**680** (≥ 530)	**770** (≥ 620)	**19** (≥ 17)	**90** (≥ 47)
v	**500**	**630**	**20**	**155**

u untreated, as welded
a annealed, 680°C/8 h / furnace down to 300 °C / air
v quenched/tempered 940 °C/0.5 h / oil 720 °C/12 h / 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 DCMV 9018-G E ZCrMoV1 B	3,2	350	90 – 140
			4.0	450	130 – 180
			5.0	450	180 – 230

Preheat and interpass temperatures 300 – 350 °C, stress relieving > 20 °C below the tempering temperature of the cast steel, but not less than 680 °C.

Approvals

TÜV (6077.), LTSS, SEPROZ, CE