BÖHLER FOX DCMS Ti

Rutile stick electrode, low-alloyed, creep resistant

Classifications

EN ISO 3580-A	EN ISO 3580-B	AWS A5.5	AWS A5.5M
E CrMo1 R 1 2	E5513-1CM	E8013-G	E5513-G
		E8013-B2 (mod.)	E5513-B2 (mod.)

Characteristics and typical fields of application

Rutile low hydrogen electrode for 1 % Cr 0.5 % Mo alloyed boiler, plate, and tube steels. Approved in long-term condition up to +570 °C service temperature. Easy to operate. Fully alloyed core wire. Specifically preferred for thin walled welds and root pass welding in all positions (except vertical down). First class X-ray quality. Post weld tempering at 660 – 700 °C for at least ½ h followed by cooling in furnace down to 300 °C and still air.

Base materials

Creep resistant steels and similar alloyed cast steels, case hardening and nitriding steels of similar chemical composition, similar alloyed heat treatable steels with tensile strength up to 780 MPa, steels resistant to caustic cracking

1.7335 13CrMo4-5, 1.7262 15CrMo5, 1.7728 16CrMoV4, 1.7218 25CrMo4, 1.7225 42CrMo4, 1.7258 24CrMo5, 1.7354 G22CrMo5-4, 1.7357 G17CrMo5-5

ASTM A 182 Gr. F12; A 193 Gr. B7; A 213 Gr. T12; A 217 Gr. WC6; A 234 Gr. WP11; A335 Gr. P11, P12; A 336 Gr. F11, F12; A 426 Gr. CP12

Typical analysis of all-weld metal (wt.-%)

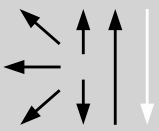
	C	Si	Mn	Cr	Mo
wt.-%	0.1	0.35	0.7	1.0	0.5

Mechanical properties of all-weld metal

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
a	**510** (≥ 460)	**610** (≥ 550)	**21** (≥ 20)	**100** (≥ 47)

a annealed, 680 °C/8 h / furnace down to 300 °C / air

Operating data



Polarity:	Electrode identification:	ø (mm)	L mm	Amps A
DC (–)	FOX DCMS Ti 8013-G	2.5	250	80 – 110
AC	E CrMo1 R	3.2	350	110 – 140
		4.0	350	140 – 180

Preheat and interpass temperatures of 200 – 250 °C are required for 13CrMo4-5 steels.

Annealing after welding at 660-700 °C min. 30´ / furnace down to 300 °C / air

Approvals

TÜV (0764.), DB (10.014.05), ABS (Cr 0,8/1,2 Mo), DNV (X), CL (0413), GL (13 CrMo 44), SEPROZ, CE