BÖHLER FOX DMO Ti

Stick electrode, rutile coated, creep resistant

Classifications

EN ISO 3580-A	EN ISO 3580-B	EN ISO 2560-A	EN ISO 2560-B
E Mo R 1 2	E4913-1M3	E 38 A Mo R 1 2	E4913-1M3 A U

Characteristics and typical fields of application

BÖHLER FOX DMO Ti is a core wire alloyed covered electrode with rutile coating for shielded metal arc welding. The 0.5Mo 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. Preferred for welding wall thicknesses up to 30 mm and root pass welding. BÖHLER FOX DMO Ti is approved for application under creep condition at design temperatures up to 550 ºC. The optimized coating of BÖHLER FOX DMO Ti results in excellent slag detachability and can be welded on direct and alternating current.

Base materials

Similar creep resistant steels and cast steels, high strength structural, fine grained and pipeline steels like
16Mo3, S235JR-S355JR, , P195TR1-P265TR1, , L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE300
ASTM A 29 Gr., 1016; A 106 Gr. A, B; A 182 Gr. F1; A 234 Gr. WP1; A 283 Gr., C, D; A 335 Gr. P1; A 501 Gr. B; A 510 Gr. 1013; A 512 Gr. 1021, 1026; A 513 Gr. 1021, 1026; A 711 Gr. 1013; API 5 L B, X42, X52, X60, X65

Typical analysis

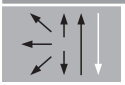
	C	Si	Mn	Mo
wt.-%	0.07	0.4	0.7	0.5

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

Condition	Yield strength R_e	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact energy ISO-V KV J
	MPa	MPa	%	20 °C
U	500 (≥ 380)	590 (= 490 – 600)	23 (≥ 20)	70 (≥ 47)
SR	470 (≥ 390)	640 (≥ 510)	23 (≥ 22)	60 (≥ 47)

U: as welded
SR: stress relieved (620 °C / 2h)

Operating data



Polarity	DC - / AC
Electrode identification	FOX DMO Ti E Mo R

Dimension mm	Current A
2.0 × 250	60 – 80
2.5 × 250	80 – 110
3.2 × 350	110 – 140
4.0 × 350	140 – 180
5.0 × 450	190 – 230

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

Approvals

TÜV (00018.), DB (10.014.90), BV, DNV, CE