

## 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

Rutile electrode for 0.5 % Mo-alloyed boiler, plates, and tube steels. Approved in long-term condition up to +550 °C service temperature. Specifically preferred for thin walled welds up to 30mm and root pass welding. It offers excellent striking and restriking characteristics, easy slag removal, smooth beads, AC/DC weld ability and produces first class X-ray quality welds in all positions (except vertical down).

## Base materials

Creep resistant steels and similar alloyed cast steels

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 of all-weld metal (wt.-%)

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

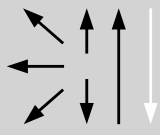
## Mechanical properties of all-weld metal

Condition	Yield strength R <sub>e</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
u	<b>500</b> (≥ 380)	<b>590</b> (490 – 600)	<b>23</b> (≥ 20)	<b>70</b> (≥ 47)
a	<b>470</b> (≥ 390)	<b>640</b> (≥ 510)	<b>23</b> (≥ 22)	<b>60</b> (≥ 47)

u untreated, as welded

a annealed 620 °C/2h / furnace down to 300 °C / air

## Operating data

	Polarity:	<b>Electrode identification:</b> FOX DMO Ti E Mo R	ø (mm)	L mm	Amps A
	DC (-)		2.0	250	60 – 80
	AC		2.5	250/350	80 – 110
			3.2	350	110 – 140
			4.0	450	140 – 180
			5.0	450	190 – 230

Preheating, interpass temperature, and post weld heat treatment as required by the base metal.

## Approvals

TÜV (0018.), DB (10.014.04), BV (2YM), DNV (X), RS (1Y), Statoil, CE