

Classifications

EN ISO 3581-A

AWS A5.4 / SFA-5.4

E Z 18 9 MnMo R 3 2

E307-16 (mod.)

Characteristics and typical fields of application

Rutile basic coated electrode, for joint welding of dissimilar joints, problem steels, also for repair and maintenance. Very popular electrode for numerous applications. The weld metal offers exceptionally high ductility and elongation together with outstanding crack resistance. There is no fear of embrittlement when operating down to service temperatures of -100 °C or above 500 °C . The scaling resistance goes up to 850 °C . When working at service temperatures above 650 °C please our application department. The weld metal can be post weld heat treated without any problems. The deposit will work harden and offers good resistance against cavitation. Ductility is good even after high dilution when welding problem steels or when subjected to thermal shock or scaling. An excellent alloy providing cost effective performance. BÖHLER FOX A 7-A is suitable for both AC and DC. Ferrite acc. To WRC 92: 4 – 8 FN

Base materials

For fabrication, repair and maintenance!

Dissimilar joints, tough buffer and intermediate layers prior to hardfacing, 14 % manganese steels, 13 – 17 % chromium heat resistant steels up to 850 °C , armour plates, high carbon and quenched & tempered steels, surfacing of gears, valves, turbine blades etc.

Typical analysis of all-weld metal

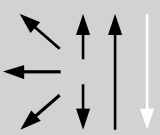
	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.10	1.50	4.00	19.50	8.50	0.70

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

Condition	Yield strength	Tensile strength	Elongation	Impact work	
	$R_{p0.2}$	R_m	A ($L_0=5d_0$)	ISO-V KV J	
	MPa	MPa	%	+20 °C	-100 °C
u	520 (≥ 350)	620 (≥ 500)	35 (≥ 25)	75	(≥ 32)

u untreated, as welded

Operating data

	Polarity: DC (+) AC	Re-drying if necessary: 120 – 200 °C / min. 2 h	Electrode identification: FOX A 7-A E Z 18 9 MnMo R	\varnothing mm	L mm	Amps A
				2.5	300/350	60 – 80
				3.2	300/350	80 – 110
				4.0	350	80 – 110
5.0	450	140 – 170				

Approvals

TÜV (09101.), NAKS ($\varnothing 3,2\text{ mm}$), CE