BÖHLER FOX EV 85

Stick electrode, low-alloyed, basic coated, high-strength

Classifications

EN ISO 18275-A	EN ISO 18275-B	AWS A5.5 / SFA-5.5	AWS A5.5M
E 69 6 Mn2NiCrMo B 4 2 H5	E7618-G A H5	E11018-G H4R	E7618-G H4R
		E11018M H4R (mod.)	E7618M H4R (mod.)

Characteristics and typical fields of application

Basic coated, Mn-Ni-Mo-alloyed electrode with high ductility and crack resistant for high-strength fine-grained constructional steels. Low-temperature ductility at –60°C.
Easy weldability in all positions except vertical-down. Very low hydrogen content (acc. AWS condition HD < 4 ml/100 g) with a moisture resistant coating.

Base materials

Quenched and tempered fine-grained steels up to 690 MPa yield strength
S620Q, S620QL, S690Q, S690QL, S620QL1-S690QL1, alform plate 620 M, 700 M, aldur 620 Q, 620 QL, 620 QL1, aldur 700 Q, 700 QL, 700 QL1
ASTM A 514 Gr. F, H, Q; A 709 Gr. 100 Type B, E, F, H, Q; A 709 Gr. HPS 100W

Typical analysis

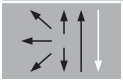
	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.05	0.4	1.7	0.4	2.1	0.5

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 energy ISO-V KV J	
	MPa	MPa	%	20°C	-60°C
u	780 (≥ 690)	840 (≥ 760 – 960)	20 (≥ 17)	110	60 (≥ 47)
s	750	800	20	80	
v	750	790	20	80	

u untreated, as-welded
s stress relieved 580 °C/2h / furnace down to 300 °C
v quenched/tempered 920 °C/1h air and 600°C/2h / furnace down to 300 °C

Operating data



Polarity	DC+
Electrode identification	FOX EV 85 11018-G E 69 6 Mn2NiCrMo B
Redrying	if necessary 300 – 350°C, min. 2h

Dimension mm	Current A
2.5 × 350	80 – 100
3.2 × 350	100 – 140
3.2 × 450	100 – 140
4.0 × 450	140 – 180
5.0 × 450	190 – 230

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

Approvals

TÜV (04313), DB (10.014.22), BV, CE