

**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  $-60^{\circ}\text{C}$ . Easy weldability in all positions except vertical-down. Very low hydrogen content (acc. AWS condition HD  $< 4 \text{ ml}/100 \text{ g}$ ) 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	%	$20^{\circ}\text{C}$	$-60^{\circ}\text{C}$
u	780 ( $\geq 690$ )	840 ( $\geq 760 - 960$ )	20 ( $\geq 17$ )	110	60 ( $\geq 47$ )
s	750	800	20	80	
v	750	790	20	80	

u untreated, as-welded  
 s stress relieved  $580^{\circ}\text{C}/2\text{h}$  / furnace down to  $300^{\circ}\text{C}$   
 v quenched/tempered  $920^{\circ}\text{C}/1\text{h}$  air and  $600^{\circ}\text{C}/2\text{h}$  / furnace down to  $300^{\circ}\text{C}$

**Operating data**

	Polarity	DC+	Dimension mm	Current A
	Electrode identification	FOX EV 85 11018-G E 69 6 Mn2NiCrMo B	$2.5 \times 350$ $3.2 \times 350$	80 – 100 100 – 140
	Redrying	if necessary $300 - 350^{\circ}\text{C}$ , min. 2h	$3.2 \times 450$	100 – 140
			$4.0 \times 450$ $5.0 \times 450$	140 – 180 190 – 230

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

**Approvals**

TÜV (04313), DB (10.014.22), BV, CE