Phoenix SH Ni 2 K 100

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

Classifications

EN ISO 18275-A	AWS A5.5 / SFA-5.5	AWS A5.5M
E 69 5 Mn2NiCrMo B 4 2 H5	E11018-G	E6918-G
	(E11018M mod.)	(E6918M mod.)

Characteristics and typical fields of application

Basic coated NiCrMo alloyed electrode for welding of high strength steels (typical yield strength 690 MPa).
Low hydrogen content < 5 ml/100 g (HD) in the weld metal; very low moisture pickup during long term storage. For high strength fine grained structural steels, for cast steel qualities; weld metal insensitive to cold cracking.

Base materials

Quenched and tempered fine grained structural steels up to 690 MPa yield strength.
High strength fine grained structural steels S620QL – S690QL, S620QL1, S690QU, aldur 700 Q, aldur 700 QL, aldur 700 QL1, HY 100

Typical analysis

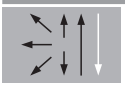
	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.06	0.20	1.60	0.38	1.85	0.40

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 work ISO-V KV J	
	MPa	MPa	%	20°C	-50°C
u	700 (≥ 690)	750 (760 - 960)	18 (≥ 17)	120	≥ 47
s	690	740	19	120	47

u untreated, as welded
s stress released at 580 °C / 2 h / furnance down to 300 °C / air

Operating data



Polarity	DC+
Electrode identification	SH Ni 2 K 100/E 11018-G/ MIL 12018-M2
Redrying	300-350°C/2h

Dimension mm	Current A
2.5 × 350	70 – 100
3.2 × 350	90 – 140
3.2 × 450	90 – 140
4.0 × 450	140 – 190
5.0 × 450	180 – 250

Approvals

TÜV (00548), DB (10.014.98) ABS, BV, DNV GL, WIWEB, CE