

## Classifications

EN ISO 2560-A	EN ISO 2560-B	AWS A5.5M	AWS A5.5 / SFA-5.5
E 46 8 2Ni B 4 2 H5	E4918-N5 A H5 (mod.)	E5518-C1 H4R	E8018-C1 H4R

## Characteristics and typical fields of application

Basic Ni-alloyed electrode for unalloyed and Ni-alloyed fine grained construction steels. Tough, crack resistant weld deposit. Low temperature toughness to  $-80^{\circ}\text{C}$ .

Good weldability in all position except vertical down. Very low hydrogen content (acc. AWS condition HD < 4 ml/100 g weld metal) with a moisture resistant coating.

## Base materials

Cryogenic constructional steels and Ni-steels, cryogenic steels for ship building

10Ni14, 12Ni14, 13MnNi6-3, 15NiMn6, S275N-S460N, S275NL-S460NL, S275M-S460M, S275ML-S460ML, P275NL1-P460NL1, P275NL2-P460NL2

ASTM A 203 Gr. D, E; A 333 Gr. 3; A334 Gr. 3; A 350 Gr. LF1, LF2, LF3; A 420 Gr. WPL3, WPL6; A 516 Gr. 60, 65; AA 529 Gr. 50; A 572 Gr. 42, 65; A 633 Gr. A, D, E; A 662 Gr. A, B, C; A 707 Gr. L1, L2, L3; A 738 Gr. A; A 841 A, B, C

## Typical analysis

	C	Si	Mn	Ni
wt.-%	0.04	0.3	0.8	2.4

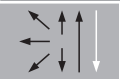
## Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_{p0.2}$	Tensile strength $R_m$	Elongation A ( $L_0=5d_0$ )	Impact energy ISO-V KV J	
	MPa	MPa	%	$20^{\circ}\text{C}$	$-80^{\circ}\text{C}$
u	490 ( $\geq 460$ )	570 ( $\geq 530 - 680$ )	30 ( $\geq 20$ )	180	110 ( $\geq 47$ )
s	470	550	30	200	

u untreated, as welded

s stress relieved  $580^{\circ}\text{C}/2\text{h}$  / furnace down to  $300^{\circ}\text{C}/\text{air}$

## Operating data

	Polarity	DC+	Dimension mm	Current A
	Electrode identification	FOX 2.5 Ni 8018-C1 E 46 8 2Ni B	2.5 x 350	70 – 100
		3.2 x 350	110 – 140	
		4.0 x 450	140 – 180	
		5.0 x 450	190 – 230	

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

## Approvals

TÜV (00147), DB (10.014.16), ABS, BV, DNV, LR, WIWEB, CE