

BÖHLER FOX 2,5 Ni

Ni-alloyed, basic coated stick electrode

Key feature

Stick electrode for welding of unalloyed and Ni-alloyed cryogenic fine grained steels.



Product features	Product benefits	User benefits
» Ni-alloyed stick electrode	<ul style="list-style-type: none"> » Cryogenic weld metal down to -80°C » Very high impact value at low temperature: 110 J at -80°C 	<ul style="list-style-type: none"> » Broad field of application for constructions with requirements down to -80°C » Safe joints due to much higher values that required in the standard
» Very low hydrogen content	<ul style="list-style-type: none"> » Avoids hydrogen induced cracks 	<ul style="list-style-type: none"> » No repair welds necessary
» Moisture resistant coating	<ul style="list-style-type: none"> » Very low moisture absorption 	<ul style="list-style-type: none"> » Electrodes could be welded much longer after re-backing
» Lot of approvals	<ul style="list-style-type: none"> » Broad field or applications 	<ul style="list-style-type: none"> » Approved product in many applications of many industries



Typical application

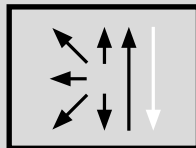
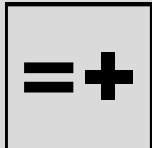
- » Steel construction under extreme conditions
- » Offshore Industry
- » Cryogenic ship building steels (e.g. icebreaker)

FOX 2,5 Ni is alloyed with 2,5 % Ni, according to the name. The big benefit of this alloy is the very high ductility at low temperatures. Therefore, specific applications like in the offshore industry with its high requirements are mostly the focus for this electrode.

The very low hydrogen content and the moisture resistant coating is standard for our basic coated high strength stick electrodes.

These properties are perfectly supporting the usage of this electrode especially for applications in these industries, where difficult environmental conditions often are the case.

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Classifications		Operating data	
EN ISO 2560-A	AWS AWS A5.5 / SFA-5.5	Welding positions	Polarity
E 46 8 2Ni B 4 2 H5	E8018-C1 H4 R		

Typical chemical composition, all weld metal, wt. %				
	C	Si	Mn	Ni
	0.04	0.3	0.8	2.4

Mechanical properties, all weld metal (single values typical)						
	Condition	Yield strength $R_{p0.2\%}$ MPa	Tensile strength R_m MPa	Elongation A ($L_0 = 5d_0$) %	CVN Impact toughness ISO-V KV J	
					20 °C	-80 °C
	Untreated, As welded	490 (≥ 460)	570 (530 – 680)	30 (≥ 20)	180	110 (≥ 47)

Steels to be welded	
EN	ASTM
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

Approvals
TÜV (00147), DB (10.014.16), ABS, WIWEB, DNV GL, LR, RINA, CE

Carton Packaging	Dry System Vacuum Packaging
 <p>Weight: ~ 4.2 kg</p> <p>Diameter: 2.5 x 350 mm 3.2 x 350 mm 4.0 x 450 mm 5.0 x 450 mm</p>	 <p>Diameter: 2.5 x 350 mm 3.2 x 350 mm 4.0 x 450 mm 5.0 x 450 mm</p>