

Classifications

AWS A5.5	AWS A5.5M
E 8018-C3 H4R	E 5518-C3 H4R

Field of application

BÖHLER FOX 8018C3 H4R is a basic low hydrogen electrode with excellent mechanical properties, high toughness and crack resistance, for higher strength fine-grained, cryogenic, construction steels. Can be exposed to low temperatures and shows good ductility. It can be used for joints on low alloy steels and pipelines for transportation of hydrocarbons. Deposits with 1% Nickel, suitable for service temperatures from -60°C to 350°C. Very low hydrogen content (acc. AWS condition HD<4ml/100gr weld metal).

Base materials

Construction steels, pipe and vessel steels, cryogenic fine-grained steels and special grades S275N-S460N, S275NL-S460NL, S275M-S460M, S275ML-S460ML, P355N, P355NH, P460N, P460NH, P275NL1-P460NL1, P275NL2-P460NL2, L360NB, L415NB, L360MB-L450MB, L360QBL450QB alform plate 460M; durostat 400, 450, 500, durostat B2 ASTM A 203 Gr. D, E; A 350 Gr. LF1, LF2, LF3; A 420 Gr. WPL3, WPL6; A 516 Gr. 60, 65, 70; A 572 Gr. 42, 50, 55, 60, 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; API 5 L X52, X60, X65, X52Q, X60Q, X65Q.

Characteristics

BÖHLER FOX 8018C3 H4R can be welded in all positions, except vertical down. Easy detachability of the slag. Deposits with an excellent appearance and free of pores, cracks or spatter.

Typical analysis of all-weld metal (wt-%)

C	Mn	Si	P	S	Ni	Cr	Mo
< 0.12	0.40 - 1.25	< 0.80	< 0.03	< 0.03	0.80 - 1.10	< 0.15	< 0.35

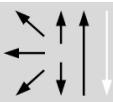
Mechanical properties of all-weld metal (As Welded)

Tensile Strength R_m MPa	Yield Strength $R_{p0.2}$ MPa	Impact work	ISO-	Elongation A ($L_0 = 5d_0$)
		V KV J -40°C		
> 550	470 - 550	> 27 J		> 24

Welding Instructions

The welding area should be free of grease and other impurities. Keep a short arc. The oscillation of the electrode should not exceed twice the core diameter. Use only dry electrodes. Electrodes that have been exposed to the environment for several hours, must be dried at a temperature between 300°C to 350°C for 2 to 3 hrs.

Welding positions

Welding positions	Current type
 <p>All positions, except vertical down.</p>	Direct current / Positive electrode (DC / EP) (= +)

Welding parameters

Electrode	Ø x L (mm)	3.2 x 350	4.0 x 350	5.0 x 350
Amperage	(A)	115 - 155	135 - 185	200 - 275

Availability

StaPac (cardboard box)	VacPac (vacuum sealed)	CanPac (hermetically sealed can)
Box of 11lbs (5kg)	Ask our Technical Representative about the availability of this presentation.	Ask our Technical Representative about the availability of this presentation.

The data and information contained in this data sheet are only to provide guidance on the application of certain products. The user is fully responsible for the proper use of these products to comply with applicable standards, specifications, maintenance procedures and building codes.