BÖHLER FOX KW 10

Basic stick electrode, high-alloyed, stainless

Classification

EN ISO 3581-A	EN ISO 3581-B	AWS A5.4
E 13 B 2 2	ES410-15	E410-15 (mod.)

Characteristics and typical fields of application

Core wire alloyed, basic covered stick electrode, low-hydrogen with good welding characteristics in all positions except vertical-down. Mainly used for surfacing on sealing faces of gas, water and steam valves to meet stainless and wear resistant overlays. In the machined condition, at least a two layer build up should remain.

Joint welding of similar, stainless and heat resistant chromium steels provides matching colour of weld metal with very good ability to polishing.

Retention of hardness up to +450 °C, scaling resistant up to +900 °C.

Base materials

Surfacing: all weld-able backing materials, unalloyed and low-alloyed.

Joint welds: corrosion resistant Cr-steels as well as other similar-alloyed steels with C-contents ≤ 0.20% (repair welding); heat resistant Cr-steels of similar chemical composition. Be careful with dilution and welding technology.

1.4006 X12Cr13, 1.4021 X20Cr13

AISI 410, 420

Typical analysis of all-weld metal

	C	Si	Mn	Cr
wt.-%	0.08	0.7	0.8	13.5

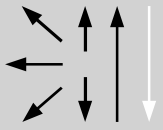
Mechanical properties of all-weld metal – typical values (min. values)

Condition	Yield strength $R_{p0,2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Brinell-hardness
	MPa	MPa	%	HB
u				**350**
a	**530** (≥ 450)	**700** (≥ 640)	**17** (≥ 15)	**210**

u untreated, as welded a annealed, 750 °C/2 h/furnace

The hardness of the deposit is greatly influenced by the degree of dilution with the base metal (depending on the relevant welding conditions) and by its chemical composition. As a general rule it can be observed that the higher the degree of dilution and the C-content of the base metal, the higher the deposit hardness.

Operating data



Polarity:	Redrying if necessary:	Electrode identification:	ø mm	L mm	Amps A
DC (+)	120-200°C, min. 2 h	FOX KW 10 E 13 B	2.5 3.2 4.0	300 350 350	60 – 80 80 – 100 110 – 130

Preheating and interpass temperature 200 – 300 °C, post weld heat treatment at 700 – 750 °C depending on the weld job.

Approvals

-