

## Classification

EN ISO 3581-A	EN ISO 3581-B	AWS A5.4
E 17 B 2 2	ES430-15	E430-15

## Characteristics and typical fields of application

Basic electrode core wire alloyed low-hydrogen with good operating 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 for instance. 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.

Hydrogen content in weld deposit < 5 ml/100 g.

Preheating and interpass temperature 200 – 300 °C, post weld heat treatment at 730 – 800 °C.

## Base materials

**Surfacings:** 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 up to 0.20 % (repair welding). Be careful with dilution and welding technology.

1.4510 X3CrTi17

AISI 430Ti, 431

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

	C	Si	Mn	Cr
wt.-%	0.08	0.4	0.3	17.0

## Mechanical properties of all-weld metal

Condition	Yield strength R <sub>p0,2</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Brinell-hardness
	MPa	MPa	%	HB
u				<b>250</b>
a	<b>370</b> (≥ 300)	<b>560</b> (≥ 450)	<b>23</b> (≥ 15)	<b>200</b>

u untreated, as welded

a annealed, 750 °C/2 h / furnace

## Operating data

	<b>Polarity:</b>	<b>Redrying if necessary:</b>	<b>Electrode identification:</b>	<b>ø (mm)</b>	<b>L mm</b>	<b>Amps A</b>
	DC (+)	120 – 200 °C, min. 2 h	FOX SKWA 430-15 E 17 B	2.5	350	60 – 80
				3.2	350	80 – 110
				4.0	350	110 – 140
				5.0	450	140 – 180

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.

## Approvals

KTA 1408.1 (8098.00), SEPPOZ, CE