

Classifications
EN ISO 3581-A

E Z 17 Mo B 2 2

Characteristics and typical fields of application

Basic coated, cored wire alloyed electrode of E Z 17 Mo B type. 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. At least two layers build up should remain after machining. Scaling resistance up to 900°C. Weld joints of similar, stainless and heat resistant chromium steels provides a very good ability to polishing. Hydrogen content in the weld deposit < 5 ml/100 g. Constant weld metal hardness up to 500°C.

Base materials

Surfacing can be performed on all weldable base materials, unalloyed and low-alloyed

Welding of corrosion resistant chromium steels as well as other similar-alloyed steels with C-contents up to 0.20% (repair welding)

1.4122 X39CrMo17-1, 1.4113 X6CrMo17-1, 1.4513 X2CrMoTi17-1

UNS S S43400, 43600

AISI 440C, 434, 436

Typical analysis

	C	Si	Mn	Cr	Mo
wt.-%	0.22	0.3	0.4	17.0	1.3


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

Condition	Hardness
	HB
u	420
a	250

u untreated, as-welded

a annealed, 750°C for 2 h / cooling in furnace

Operating data

	Polarity	DC+	Dimension mm	Current A
	Electrode identification	FOX SKWAM E Z 17 Mo B	2.5 × 300	60 – 80
			3.2 × 350	80 – 110
			4.0 × 350	110 – 140
			5.0 × 450	140 – 180

Preheating as required by the base metal, with temperatures between 100°C and 200°C being generally sufficient (for welding operations 250 – 400°C).

Annealing at 650 – 750°C may be carried out to improve the toughness values in the weld metal and in the transition zone of the base metal.

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 hardness of the deposit.

Re-drying if necessary at 120 – 200°C for min. 2 h.

Approvals

KTA 1408.1 (08043.03), DB, CE