BÖHLER FOX CN 23/12 Mo-A

Covered electrode, high-alloyed, austenitic stainless, special applications

Classifications

EN ISO 3581-A	EN ISO 3581-B	AWS A5.4 / SFA-5.4
E 23 12 2 L R 3 2	ES309LMo-17	E309LMo-17

Characteristics and typical fields of application

Rutile coated electrode of E 23 12 2 L / E309LMo-17 type. Provides increased delta ferrite content (FN ~20) in the weld metal for safe and crack resistant dissimilar joints as well as for cladding or root passes of clad steel. Designed for first class weld seams and easy handling on AC or DC+. High current carrying capacity with minimum spatter formation. Self-releasing slag, smooth and clean weld profile. Safety against formation of porosity due to moisture resistant coating and its packaging into hermetically sealed tins. Operating temperature from –60ºC to 300ºC and for weld surfacing (1st layer) up to 400ºC.

Base materials

For the first layer of corrosion resistant surfacing on P235G1TH, P255G1TH, S255N, P295GH, S355N – S500N
For the first layer of corrosion resistant weld claddings on high temperature quenched and tempered fine-grained steels
Dissimilar welding of mild steels and low-alloyed construction and QT-steels; unalloyed as well as low-alloyed boiler or constructional steels with stainless Cr-, CrNi- and CrNiMo-steels; ferritic-austenitic welds in boiler and pressure vessel parts

Typical analysis

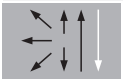
	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.02	0.7	0.8	23.0	12.5	2.7

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)	Impact energy ISO-V KV J	
	MPa	MPa	%	20°C	–60°C
u	540 (≥ 350)	690 (≥ 550)	28 (≥ 25)	50	40 (≥ 32)

u untreated, as-welded

Operating data



Polarity	DC+ / AC
Electrode identification	FOX CN 23/12 Mo-A / E 23 12 2 L R

Dimension mm	Current A
2.0 × 300	45 – 60
2.5 × 350	60 – 80
3.2 × 350	80 – 120
4.0 × 350	100 – 160
5.0 × 450	140 – 220

Preheating and interpass temperature as required by the base metal.
Redrying at 250 – 300ºC for min. 2 h if necessary.

Approvals

TÜV (01362), DB (30.014.41), ABS, RINA, DNV, BV, LR, CE