BÖHLER FOX E309L-17

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

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 23 12 L R 3 2	E309L-17

Characteristics and typical fields of application

Rutile coated, core wire alloyed electrode of E 23 12 L / E309L-17 type providing increased delta ferrite contents in the weld deposit for safe and crack resistant dissimilar joint welds and surfacing. 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. Operating temperature from –60ºC to 300ºC and for weld claddings up to 400ºC.

Base materials

Primarily used for surfacing (buffer layer) unalloyed or low-alloyed steels and when joining mainly non-molybdenum-alloyed stainless steels to carbon steels, austenitic and ferritic heat resistant steels, etc.

Typical analysis

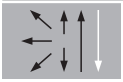
	C	Si	Mn	Cr	Ni	FN
wt.-%	0.02	0.7	0.8	23.2	12.5	12 – 17

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		Hardness
	MPa	MPa	%	20°C	–60°C	
u	450 (≥ 320)	580 (≥ 520)	40 (≥ 25)	55	45 (≥ 32)	230

u untreated, as-welded

Operating data



Polarity	DC+ / AC
Electrode identification	FOX E309L-17 / E 23 12 L R

Dimension mm	Current A
2.5 x 300 mm	60 - 80
3.2 x 350 mm	80 - 110
4.0 x 350 mm	110 - 140
5.0 x 350 mm	140 - 180

Approvals

ABS, CWB