BÖHLER FOX CN 18/11

Covered electrode, high-alloyed, austenitic stainless, creep resistant

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 19 9 B 4 2	E308-15

Characteristics and typical fields of application

Basic coated, core wire alloyed electrode of E 19 9 N / E308-15 type. Controlled delta ferrite content (3 – 8 FN) for heat and creep resistant austenitic CrNi-steels with increased carbon contents (e.g. 1.4948 / 304H), for boiler, reactor and turbine fabrication. Approved in long-term condition up to 700ºC service temperature (300ºC in the case of wet corrosion). High resistance to hot cracking. Excellent weldability in all positions except vertical down. Also suitable for 1.4550 / 347 and 1.4541 / 321, which are approved for temperatures up to 550ºC.

Base materials

Similar alloyed creep and heat resistant steels
1.4878 X8CrNiTi18-10, 1.4912 X7CrNiNb18-10, 1.4940 X7CrNiTi18-10, 1.4948 X6CrNi18-10, 1.4949 X3CrNiN18-11
UNS S30409, S32100
AISI 304H, 321

Typical analysis

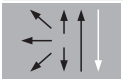
	C	Si	Mn	Cr	Ni	FN
wt.-%	0.05	0.3	1.3	19.4	10.4	3 – 8

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	–40°C
u	420 (≥ 350)	580 (≥ 550)	40 (≥ 30)	85	57 (≥ 32)

u untreated, as-welded

Operating data



Polarity	DC+
Electrode identification	FOX CN 18/11 308-15 E 19 9 B

Dimension mm	Current A
2.5 × 250	50 – 80
3.2 × 350	80 – 100
4.0 × 350	110 – 140

Preheating normally not necessary. Material with a thickness exceeding 25 mm is preferably preheated up to 150ºC.
Suggested heat input max. 1.5 kJ/mm and interpass temperature max. 150ºC.

Approvals

TÜV (00138), KTA 1408.1 (08067), CE