BÖHLER FOX SAS 2-A

Covered electrode, high-alloyed, austenitic stainless, stabilized

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 19 9 Nb R 3 2	E347-17

Characteristics and typical fields of application

Rutile coated, cored wire alloyed stabilized electrode of E 19 9 Nb R / E347-17 type. Mainly for welding Ti and Nb stabilized 1.4541 / 321 and 1.4546 / 347 austenitic stainless steel grades. Designed for first class weld seams and easy handling on both AC and DC. High current carrying capacity with minimum spatter formation. Self-releasing slag, smooth and clean weld profile. The corrosion resistance corresponds to that of 316Ti with good resistance to general and pitting corrosion. Max. service temperature 400ºC.

Base materials

1.4301 X5CrNi18-10, 1.4306 X2CrNi19-11, 1.4311 X2CrNiN18-9, 1.4312 GX10CrNi18-8, 1.4541 X6CrNiTi18-10, 1.4546 X5CrNiNb18-10, 1.4550 X6CrNiNb18-10, 1.4552 GX5CrNiNb19-11
UNS S30400, S30403, S30453, S32100, S34700
AISI 347, 321,302, 304, 304L, 304LN

Typical analysis

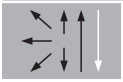
	C	Si	Mn	Cr	Ni	Nb
wt.-%	0.03	0.8	0.8	19.5	10.0	0.32

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	–120°C
u	480 (≥ 350)	620 (≥ 550)	40 (≥ 25)	70	35 (≥ 32)

u untreated, as-welded

Operating data



Polarity	DC+ / AC
Electrode identification	FOX SAS 2-A 347-17 E 19 9 Nb R

Dimension mm	Current A
1.5 × 250	25 – 40
2.0 × 300	40 – 60
2.5 × 350	50 – 90
3.2 × 350	80 – 120
4.0 x 350/450	110 – 160
5.0 × 450	140 – 200

Suggested heat input is max. 1.5 kJ/mm and interpass temperature max. 150ºC.
Generally no heat treatment needed.
BÖHLER FOX SAS 2-A can be used for cladding, which normally requires stress relieving at approximately 590ºC. Such a heat treatment will lower the ductility at room temperature. BÖHLER FOX E 347 H may be an alternative in this case.
Re-drying if necessary at 250 – 300ºC for min. 2 h.

Approvals

TÜV (01105), DB (30.014.06), ABS, DNV, CWB certified CSA W48-18: E347-17, CE