

Classification

EN ISO 3581-A	EN ISO 3581-B	AWS A5.4
E 19 12 3 Nb B 2 2	ES318-15	E318-15

Characteristics and typical fields of application

Basic electrode, stabilised core wire alloyed, stainless steel, mainly for Ti and Nb stabilised 1.4571 / 1.4580 / 316Ti steel grades.

BÖHLER FOX SAS 4 is designed to produce first class weld deposits with reliable CVN toughness values down to $-90\text{ }^{\circ}\text{C}$, 100 % X-ray safety together with very good root pass and positional welding characteristics, good gap bridging ability, easy weld pool and slag control as well as easy slag removal even in narrow preparations resulting in clean bead surfaces and minimum post weld cleaning. An excellent electrode for welding on site and for heavy and rigid components.

The product is resistant to intergranular corrosion up to $+400\text{ }^{\circ}\text{C}$.

Base materials

1.4571 X6CrNiMoTi17-12-2, 1.4580 X6CrNiMoNb17-12-2, 1.4401 X5CrNiMo17-12-2, 1.4581 GX5CrNiMoNb19-11-2, 1.4437 GX6CrNiMo18-12, 1.4583 X10CrNiMoNb18-12, 1.4436 X3CrNiMo17-13-3
AISI 316L, 316Ti, 316Cb

Typical analysis of all-weld metal (wt.-%)

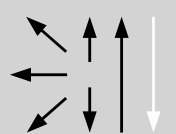
	C	Si	Mn	Cr	Ni	Mo	Nb
wt.-%	0.03	0.4	1.3	18.8	11.8	2.7	+

Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact work ISO-V KV J	
	MPa	MPa	%	$+20\text{ }^{\circ}\text{C}$	$-90\text{ }^{\circ}\text{C}$
u	490 (≥ 350)	660 (≥ 550)	31 (≥ 25)	120	≥ 32

u untreated, as welded

Operating data

	Polarity: DC (+)	Electrode identification:	\varnothing (mm)	L mm	Amps A
		FOX SAS 4 318-15	2.5	300	50 – 80
		E 19 12 3 Nb B	3.2	350	80 – 110
			4.0	350	110 – 140

Approvals

TÜV (0774.), DB (30.014.05), ABS (Cr17/20, Ni10/13), GL (4571), SEPROZ, CE