

Classification

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 19 12 3 Nb R 3 2	E318-17

Characteristics and typical fields of application

Rutile coated core wire alloyed, stabilised austenitic electrode. mainly for Ti or Nb stabilised 1.4571 / 1.4580 / 316Ti steel grades.

Designed for first class weld seams and easy handling on AC or DC. High current carrying capacity, minimum spatter formation, self-releasing slag, smooth and clean weld profile, safety against formation of porosity due to moisture resistant coating. The fully alloyed core wire ensures the most reliable corrosion resistance.

Resistant to intergranular corrosion up to +400 °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

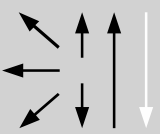
	C	Si	Mn	Cr	Ni	Mo	Nb
wt.-%	0.03	0.80	0.80	19.00	12.00	2.70	+

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 work ISO-V KV J	
	MPa	MPa	%	+20 °C	-90 °C
u	460 (≥ 350)	600 (≥ 550)	32 (≥ 25)	60	≥ 32

u untreated, as welded

Operating data

	Polarity: DC (+) AC	Redrying if necessary: 120 – 200 °C, min. 2 h	Electrode identification: FOX SAS 4-A 318-17 E 19 12 3 Nb R	∅ mm	L mm	Amps A
				2.0	300	40 – 60
				2.5	250/300/350	50 – 90
				3.2	300/350	80 – 120
				4.0	350	110 – 160
				5.0	450	140 – 200

Approvals

TÜV (00777.), DB (30.014.07), CE, NAKS (∅ 2.5; 3.2; 4.0 mm)