

Classifications

EN ISO 3581-A	EN ISO 3581-B	AWS A5.4
E 19 12 3 L B 2 2	ES316L-15	E316L-15

Characteristics and typical fields of application

Basic electrode, core wire alloyed stainless steel. Preferably used for 1.4435 / 316L steel grades. Reliable toughness values down to -196 °C . 100 % X-ray safety together with very good root pass and positional welding characteristics. Resistant to intergranular corrosion up to $+400\text{ °C}$. Good gap bridging ability, easy weld pool and slag control. Easy slag removal even in narrow preparations result in clean bead surfaces with minimum post weld cleaning. Electrodes are packed in hermetically sealed tins and have a moisture resistant coating.

Base materials

1.4401 X5CrNiMo17-12-2, 1.4404 X2CrNiMo17-12-2, 1.4435 X2CrNiMo18-14-3, 1.4436 X3CrNiMo17-13-3, 1.4571 X6CrNiMoTi17-12-2, 1.4580 X6CrNiMoNb17-12-2, 1.4583 X10CrNiMoNb18-12, 1.4409 GX2CrNiMo 19-11-2
UNS S31603, S31653; AISI 316L, 316Ti, 316Cb

Typical analysis of all-weld metal

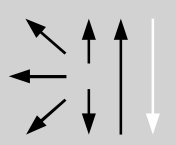
	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.03	0.4	1.2	18.8	11.8	2.7

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	-120 °C	-196 °C
u	460 (≥ 320)	600 (≥ 510)	38 (≥ 25)	90	≥ 32	≥ 27

u untreated, as welded

Operating data

	Polarity: DC (+)	Electrode identification: FOX EAS 4 M 316L- 15 E 19 12 3 L B	\varnothing mm	L mm	Amps A
			2.5	300	50 – 80
			3.2	350	80 – 110
			4.0	350	110 – 140

Approvals

TÜV (00772.), DNV GL, CE