



merian®

BÖHLER AWS E316L-17

Rutile stick electrode, high-alloyed, stainless

Classifications

EN ISO 3581-A	AWS A5.4
E 19 12 3 L R 3 2	E316L-17

Characteristics and typical fields of application

Rutile electrode, core wire alloyed stainless steel. Preferably used for 1.4435 / 316L steel grades. BÖHLER AWS E316L-17 is an acknowledged world leader, noted for its superior welding characteristics and metallurgy. It can be used on AC or DC. Other advantages include high current capacity, minimum spatter formation, self-releasing slag, smooth and clean weld profile, safety against formation of porosity due to moisture resistant coating and packaging into hermetically sealed tins. The fully alloyed core wire ensures the most reliable corrosion resistance. Resistant to intergranular corrosion up to +400°C.

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 (wt.-%)

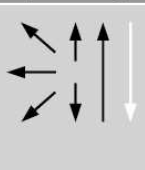
	C	Si	Mn	Cr	Ni	Mo
wt.-%	≤ 0.03	0.8	0.8	18.8	11.5	2.7

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°C	-120°C
u	460 (≥ 320)	600 (≥ 510)	36 (≥ 25)	70	≥ 32

u untreated, as welded

Operating data

	Polarity: DC (+) / AC	Redrying: if necessary 120 – 200°C, min. 2 h	Electrode identification: 316L-17	ø (mm)	L (mm)	Amps A	
					2.5	350	50 – 90
					3.2	350	80 – 120
				4.0	350	110 – 160	

Approvals

TÜV (10648.), GL (4571), ABS, CE