

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 19 12 3 L R 3 2	E316L-17

Characteristics and typical fields of application

Rutile coated, core wire alloyed electrode for welding of stainless austenitic steels such as 1.4404 and 1.4435 / 316L. Easy to weld on both AC and DC+ with minimum spatter formation. The slag is self-releasing and the resulting weld is smooth and clean. Max. service temperature 400°C.

Base materials

1.4401 X5CrNiMo17-12-2, 1.4404 X2CrNiMo17-12-2, 1.4409 GX2CrNiMo19-11-2, 1.4429 X2CrNiMoN17-12-3, 1.4432 X2CrNiMo17-12-3, 1.4435 X2CrNiMo18-14-3, 1.4436 X3CrNiMo17-12-3, 1.4571 X6CrNiMoTi17-12-2, 1.4580 X6CrNiMoNb17-12-2 1.4583 X10CrNiMoNb18-12
UNS S31600, S31603, S31635, S31640, S31653
AISI 316L, 316Ti, 316Cb

Typical analysis


	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 - 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	460 (≥ 320)	600 (≥ 510)	36 (≥ 25)	70	57 (≥ 32)

u untreated, as welded

Operating data

	Polarity	DC+ / AC	Dimension mm	Current A
	Electrode identification	Q E 316L-17 / 316L-17 / E 19 12 3 L R	2.5 × 300	50 – 90
			3.2 × 350	80 – 120
			4.0 × 350	110 – 160

Suggested heat input is max. 2.0 kJ/mm and interpass temperature max. 150°C.

Approvals

TÜV (10648), ABS, DNV, CE