

Classifications

EN ISO 3581-A	AWS A5.4
E 18 16 5 N L R 3 2	E317L-17 (mod.)

Characteristics and typical fields of application

Rutile electrode, core wire alloyed, suited for corrosion resistant, CrNi-steels with increased Mo content like 1.4439 / 317L. Field of application includes chemical industry, flue gas desulphurisation plants, sea water desalination, pulp and paper industry as well as textile and cellulose. The weld deposit exhibits excellent resistance to stress corrosion cracking, resistance against pitting corrosion. Intergranular corrosion resistance up to +300 °C service temperature.

It is characterised by an increased Mo content (4.5 %) to compensate for segregation in high molybdenum alloyed weld metals to meet equivalent corrosion properties as the relevant base metals with 3 – 4 % Mo guarantee.

Good operating characteristics on AC and DC, minimum spatter formation, self releasing slag with smooth and clean bead surface.

Base materials

1.4436 X3CrNiMo17-13-3, 1.4439 X2CrNiMoN17-13-5, 1.4429 X2CrNiMoN17-13-3,
1.4438 X2CrNiMo18-15-4, 1.4583 X10CrNiMoNb18-12

AISI 316Cb, 316LN, 317LN, 317L, UNS S31726

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

	C	Si	Mn	Cr	Ni	Mo	N		PRE _N	FN
wt-%	≤ 0.035	0.7	1.2	18.0	17.0	4.5	0.13		~ 36.0	≤ 0.5

Mechanical properties of all-weld metal

Condition	Yield strength R _e	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	-120 °C
u	460 (≥ 300)	660 (≥ 520)	32 (≥ 30)	70	47 (≥ 32)

u untreated, as welded

Operating data

	Polarity:	Redrying if necessary:	Electrode identification:	∅ (mm)	L mm	Amps A
	DC (+) AC	120 – 200 °C / min. 2 h	FOX ASN 5-A E 18 16 5 N L R	2.5 3.2 4.0	300 350 350	65 – 85 90 – 120 110 – 150

Approvals

TÜV (07118.), CE