

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 19 9 L R 1 5	E308L-17

Characteristics and typical fields of application

Rutile-basic coated, core wire alloyed electrode of E 19 9 L R / E308L-17 type especially designed for vertical-down welding of stainless steel sheet metals of 1.4307 / 304L type. Suitable for welding of root and cap layers on V-joints in vertical down position. When using same electrode diameter and same wall thickness, it is possible to save up to 50% of the welding time as compared to the vertical up position. Fast travel speed resulting in low heat input and little distortion minimizes straightening work. Max. service temperature 350°C. The scaling temperature is approximately 850°C in air.

Base materials

1.4301 X5CrNi18-10, 1.4306 X2CrNi19-11, 1.4307 X2CrNi18-9, 1.4311 X2CrNi18-9, 1.4312 GX10CrNi18-8, 1.4541 X6CrNiTi18-10, 1.4546 X5CrNiNb18-10, 1.4550 X6CrNiNb18-10
 UNS S30400, S30403, S30453, S32100, S34700
 AISI 304, 304L, 304LN, 302, 321, 347

Typical analysis

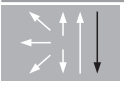
	C	Si	Mn	Cr	Ni
wt.-%	0.02	0.7	0.7	19.8	10.5

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
u	470 (≥ 320)	600 (≥ 520)	36 (≥ 30)	55

u untreated, as-welded

Operating data

	Polarity	DC+	Dimension mm	Current A
	Electrode identification	FOX EAS 2-VD 308L-17 E 19 9 L R	2.5 × 300	75 – 85
			3.2 × 300	105 – 115

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

Post-weld heat treatment generally not needed. In special cases, solution annealing can be performed at 1050°C followed by water quenching.

Re-drying at 120 – 200°C for min. 2 h if necessary.

Approvals

CWB, CE