

Classifications

EN ISO 3581-A	AWS A5.4
E 23 12 L R	E309L-17

Characteristics and typical fields of application

Avesta 309L is a high-alloy low carbon electrode designed for welding dissimilar joints between stainless and mild or low-alloy steels.

The electrode is well suited as a buffer layer when overlay welding on mild steels, providing an 18 Cr 8 Ni deposit from the first layer.

Avesta 309L can also be used for welding some high temperature steels, such as 1.4833/ASTM 309S.

Corrosion resistance:

Superior to 308L. When used for overlay welding on mild steel a corrosion resistance equivalent to that of 1.4301/ASTM 304 is obtained already in the first layer.

Base materials

High-alloy low carbon electrode for surfacing unalloyed steel, joint welding of non-molybdenum-alloyed stainless steel to unalloyed steel and for welding clad material.

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

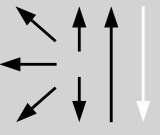
	C	Si	Mn	Cr	Ni
wt-%	0.02	0.8	0.8	23.0	13.3

Mechanical properties of all-weld metal

Heat-treatment	Yield strength R_e N/mm ²	Tensile strength R_m N/mm ²	Elongation ($L_0=5d_0$)	Impact work ISO-V KV J		Hardness
	MPa	MPa	%	+20 °C	-40°C	HB
u	450	570	35	50	45	210

u untreated, as-welded

Operating data

	Polarity: DC (+)	Electrode identification:	Ø (mm)	L mm	Amps A
			2.0		35 – 60
			2.5		50 – 80
			3.25		80 – 120
			4.0		100 – 160
			5.0		160 – 220

Approvals

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