

308L/MVR Cryo

For welding steels such as					
Outokumpu	EN	ASTM	BS	NF	SS
4301	1.4301	304	304S31	Z7 CN 18-09	2333
4307	1.4307	304L	304S11	Z3 CN 18-10	2352
4311	1.4311	304LN	304S61	Z3 CN 18-10 Az	2371
4541	1.4541	321	321S31	Z6 CNT 18-10	2337

Standard designations

EN 1600 E 19 9 L R
 AWS A5.4 E308L-16

Characteristics and welding directions

AVESTA 308L/MVR Cryo is a Cr-Ni electrode for all position welding of austenitic stainless steels. The carefully controlled chemical composition gives a weld metal with a ferrite content in the range of 3 – 6 FN (WRC 92) and very good toughness down to -196°C .

Welding data

DC+ or AC	Diam., mm	Current, A
	2.50	50 – 80
	3.25	70 – 120
	4.00	100 – 160

Weld deposit data

Metal recovery approx. 100 %.

Chemical composition, wire (typical values, %)

C	Si	Mn	Cr	Ni
0.02	0.5	1.7	19.0	10.3

Ferrite 4 FN WRC-92

Mechanical Properties

	Typical values (IIV)	Min. values EN 1600
Yield strength $R_{p0.2}$	450 N/mm ²	320 N/mm ²
Tensile strength R_m	570 N/mm ²	510 N/mm ²
Elongation A_5	43 %	30 %
Impact strength KV -196°C	35 J	
Lateral expansion	0.55 mm	

Interpass temperature: Max. 150°C .

Heat input: Max. 2.0 kJ/mm

Heat treatment: Generally none. In special cases quench annealing at $1020 - 1080^{\circ}\text{C}$.

Structure: Austenite with 3 – 6 FN.

Scaling temperature: Approx. 850°C (air).

Corrosion resistance: Good resistance to general corrosion.

Approvals: –

Welding positions

