

316L/SKR Cryo

For welding steels such as					
Outokumpu	EN	ASTM	BS	NF	SS
4436	1.4436	316	316S33	Z7 CND 18-12-03	2343
4432	1.4432	316L	316S13	Z3 CND 17-12-03	2353
4429	1.4429	S31653	316S63	Z3 CND 17-12 Az	2375
4571	1.4571	316Ti	320S31	Z6 CNDT 17-12	2350

Standard designations

EN 1600 E 19 12 3 L R
 AWS A5.4 E316L-16

Characteristics and welding directions

AVESTA 316L/SKR Cryo is a Cr-Ni-Mo electrode for all position welding of austenitic stainless steels. The carefully controlled chemical composition gives a weld metal with ferrite content in the range of 3 – 8 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	Mo
0.02	0.3	1.2	17.2	11.9	2.7

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	35 %	25 %
Impact strength KV -196°C	42 J	
Lateral expansion	0.70 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°C.

Structure: Austenite with 3 – 6 FN.

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

Corrosion resistance: Good resistance to general corrosion.

Approvals: –

Welding positions

