

Classifications

EN ISO 3581-A	AWS A5.4
E 19 9 L R	E308L-16

Characteristics and typical fields of application

Avesta 308L/MVR Cryo is a Cr-Ni electrode for all position welding of 1.4301/ASTM 304 type stainless steels, primarily for use in low temperature applications. 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 as specified for LNG applications.

Corrosion resistance:

Good resistance to general corrosion.

Base materials

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

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

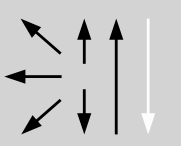
	C	Si	Mn	Cr	Ni
wt-%	0.03	0.3	1.7	18.7	10.2

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	-196°C	
u	420	560	43	-	35	200

u untreated, as-welded

Operating data

	Polarity: DC (+)	Electrode identification:	ø (mm)	L mm	Amps A
			2.5		50 – 80
			3.25		70 – 120
			4.0		100 – 160

Approvals

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