

308/308H AC/DC

For welding steels such as Outokumpu	EN	ASTM	BS	NF	SS
4301	1.4301	304	304S31	Z7 CN 18-09	2333
4541	1.4541	321	321S31	Z6 CNT 18-10	2337
–	1.4550	347	347S31	Z6 CNNb 18-10	2338

Standard designations

EN 1600	E 19 9 R
AWS A5.4	E308H-17

Characteristics

AVESTA 308/308H AC/DC is a high carbon Cr-Ni electrode primarily intended for welding ASTM 304 and 304H type stainless steel exposed to temperatures above 400°C.

Welding data

DC+ or AC	Diam. mm	Current, A
	2.5	50 – 80
	3.25	80 – 120
	4.0	100 – 160
	5.0	160 – 220

Weld deposit data at maximum welding current

Electrode diam. mm	length mm					Metal recov. ~ %
		N	B	H	T	
2.5	300	0.57	87	0.98	42	113
3.25	350	0.59	45	1.52	53	109
4.0	350	0.61	30	2.06	58	107
5.0	350	0.64	20	2.79	64	102

Typical analysis % (All weld metal)

C	Si	Mn	Cr	Ni
0.06	0.7	1.1	20.0	10.0

Ferrite 5 FN DeLong

Mechanical properties

	Typical values (IIW)	Min. values EN 1600
Yield strength $R_{p0.2}$	450 N/mm ²	350 N/mm ²
Tensile strength R_m	605 N/mm ²	550 N/mm ²
Elongation A_5	37 %	30 %
Impact strength KV		
+20°C	55 J	
–40°C	50 J	
Hardness approx.	210 Brinell	

Interpass temperature: Max. 150°C.

Heat input: Max. 2.0 kJ/mm.

Heat treatment: Generally none (in special cases quench annealing at 1050°C).

Structure: Austenite with 5 – 10% ferrite.

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

Corrosion resistance: Corresponding to ASTM 304, i.e. good resistance to general corrosion. The enhanced carbon content, compared to 308L, makes it slightly more sensitive to intercrystalline corrosion.

Approvals

- CE
- CWB
- TÜV

Welding positions

