

383 AC/DC

For welding steels such as Outokumpu	EN	ASTM	BS	NF	SS
–	1.4563	N08028	–	–	2584

Standard designations

EN 1600 E 27 31 4 Cu L R
 AWS A5.4 E383-17

Characteristics

AVESTA 383 AC/DC is a highly alloyed fully austenitic electrode with a composition corresponding to AWS E383-17. It is primarily designed for welding ASTM N08028 and similar steels. 383 has a fully austenitic structure which makes it somewhat more sensitive to hot cracking than for example 316L. Welding should be performed taking great care about low heat input and interpass temperature.

Welding data

DC+ or AC	Diam. mm	Current, A
	2.5	50 – 75
	3.25	80 – 110
	4.0	100 – 150

Weld deposit data

Metal recovery approx. 120%.

Typical analysis % (All weld metal)

C	Si	Mn	Cr	Ni	Mo	Cu
0.02	0.9	0.9	27.0	32.0	3.7	1.0
Ferrite		0 FN				

Mechanical properties

	Typical values (IIW)	Min. values EN 1600
Yield strength $R_{p0.2}$	410 N/mm ²	240 N/mm ²
Tensile strength R_m	620 N/mm ²	500 N/mm ²
Elongation A_5	33 %	25 %
Impact strength KV +20°C	55 J	
Hardness approx.	200 Brinell	

Interpass temperature: Max. 100°C.

Heat input: Max. 1.5 kJ/mm.

Heat treatment: Generally none (in special cases quench annealing at 1070 – 1100°C).

Structure: Fully austenitic.

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

Corrosion resistance: High corrosion resistance in sulphuric and phosphoric acids. Excellent pitting resistance in acidic solutions containing chlorides and fluorides.

Approvals

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Welding positions

Ø 2.5–3.25

Ø 4.0

