

# 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 <sup>2</sup>	240 N/mm <sup>2</sup>
Tensile strength $R_m$	620 N/mm <sup>2</sup>	500 N/mm <sup>2</sup>
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

