

For welding steel such as:

Outokumpu	EN	ASTM	SS*	BS*	NF*
-	1.4563	N08028	2584	-	-

* Obsolete national standards, replaced by EN 10088.

Characteristics

AVESTA 383 AC/DC is a rutile-acid type electrode with a chemical composition corresponding to that of AWS E383-17.

The electrode, which is based on a fully-alloyed core wire, offers good weldability using either positive pole DC or AC.

AVESTA 383 is designed for welding steels such as UNS N08028, which have high corrosion resistance in sulphuric and phosphoric acids and excellent pitting resistance in acidic solutions containing chlorides and fluorides such as seawater.

Welding directions

When welding fully austenitic steels, care should be taken to avoid hot cracking.

The heat input should therefore be kept at a low level and the material should be allowed to cool to below 100°C before the next run is welded. Avoid igniting the electrode beside the weld and finish every bead with a circular movement to avoid pipes.

Weaving more than twice the core diameter is not recommended

Weld deposit data

Metal recovery approx. 120 %.

Packaging data

Diam. mm	Length mm	Weight/ capsule, kg	Approx. No. of electrodes/ capsule	Weight/ carton, kg
2.5	300	3.63	179	10.89
3.25	350	4.10	105	12.30
4.0	350	4.10	74	12.30

Standard designations

EN 1600 27 31 4 Cu L R
AWS A5.4 E 383-17

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	

Welding data

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

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 such as seawater.

Approvals: -

Welding positions

