

307 AC/DC

For welding steels such as Outokumpu	EN	ASTM	BS	NF	SS
Over-alloyed electrode for welding stainless steels to carbon steel, low-alloy steel or Mn-steel.					

Standard designations

EN 1600	E 18 9 Mn Mo R
AWS A5.4	E307-17

Characteristics

AVESTA 307 AC/DC is a Mn-alloyed electrode developed for dissimilar welding between stainless, mild and low-alloy steels as well as Mn-steels. 307 offers a crack resistant weld with good mechanical properties. Can also be used for welding high-strength steels such as Hardox® and Armox®.

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

Metal recovery approx. 110%.

Typical analysis % (All weld metal)

C	Si	Mn	Cr	Ni	Mo
0.07	0.8	4.0	20.0	10.5	0.8

Ferrite 5 FN DeLong

Mechanical properties

	Typical values (IIW)	Min. values EN 1600
Yield strength $R_{p0.2}$	465 N/mm ²	350 N/mm ²
Tensile strength R_m	605 N/mm ²	500 N/mm ²
Elongation A_5	35 %	25 %
Impact strength KV +20°C	45 J	
Hardness approx.	200 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 0 – 5% ferrite.

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

Corrosion resistance: Primarily intended for stainless to mild steel connections, however, the corrosion resistance corresponds to ASTM 304.

Approvals

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Welding positions

