

253 MA-NF AC/DC

For welding steels such as Outokumpu	EN	ASTM	BS	NF	SS
253 MA [®]	1.4835	S30815	–	–	2368
153 MA [™]	1.4818	S30415	–	–	2372

Standard designations

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Characteristics

AVESTA 253 MA-NF AC/DC is a fully austenitic electrode designed for welding Outokumpu 153 MA and 253 MA exposed to medium to high service temperatures (650 – 950°). The absence of ferrite in 253 MA-NF provides high ductility at room temperature, which makes it well suited for applications with a thermal cycle between 20°C and 950°C. However, the fully austenitic solidification structure requires that welding be performed with great care about low heat input and interpass temperature.

Welding data

DC+ or AC	Diam. mm	Current, A
	2.5	45 – 70
	3.25	70 – 110
	4.0	100 – 140

Weld deposit data at maximum welding current

Electrode diam. mm	length mm					Metal recov. ~ %
		N	B	H	T	
2.5	350	0.58	78	0.80	58	109
3.25	350	0.58	46	1.18	66	108
4.0	400	0.62	27	1.63	82	105

Typical analysis % (All weld metal)

C	Si	Mn	Cr	Ni	N
0.08	0.7	1.0	19.0	10.0	0.16

Ferrite 0 FN

Mechanical properties

	Typical values (IIW)	Min. values EN 1600
Yield strength R _{p0.2}	470 N/mm ²	–
Tensile strength R _m	630 N/mm ²	–
Elongation A ₅	35 %	–
Impact strength KV +20°C	70 J	–
Hardness approx.	210 Brinell	–

Interpass temperature: Max. 100°C.

Heat input: Max. 1.2 kJ/mm.

Heat treatment: Generally none.

Structure: Fully austenitic.

Scaling temperature: Approx. 1000°C (air).

Corrosion resistance: Excellent resistance to high temperature corrosion. Not intended for applications exposed to wet corrosion.

Approvals

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Welding positions

