

248 SV rutile

For welding steels such as Outokumpu	EN	ASTM	BS	NF	SS
248 SV	1.4418	–	–	Z6 CND 16-05-01	2387

Standard designations

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Characteristics

AVESTA 248 SV rutile produces an austenitic-ferritic-martensitic weldment. It is designed for welding and repair of propellers, pumps, valves and shafts in 248 SV, ASTM 420 and similar types of steels and castings. Welding is normally performed without pre-heating unless considerable shrinkage stresses are to be expected.

Welding data

DC+	Diam. mm	Current, A
	3.25	70 – 110
	4.0	100 – 150

Weld deposit data

Metal recovery approx. 105%.

Typical analysis % (All weld metal)

C	Si	Mn	Cr	Ni	Mo	N
0.03	0.5	3.0	16.0	5.5	1.2	0.12

Mechanical properties

	Typical values (IIW)	Min. values EN 1600
Yield strength $R_{p0.2}$	510 N/mm ²	–
Tensile strength R_m	760 N/mm ²	–
Elongation A_5	30 %	–
Impact strength KV +20°C	115 J	–
Hardness approx.	260 Brinell	–

Interpass temperature: Max. 150°C.

Heat input: Max. 2.0 kJ/mm.

Heat treatment: Annealing for 4 hours at 590°C.

Structure: Approx. 90 – 95% austenite, balanced with ferrite and martensite.

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

Corrosion resistance: The resistance to general and pitting corrosion is in level with that of ASTM 304L.

Approvals

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Welding positions

