

# 353 MA basic

For welding steels such as Outokumpu	EN	ASTM	BS	NF	SS
353 MA®	1.4854	S35315	–	–	–

## Standard designations

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## Characteristics

AVESTA 353 MA basic is a fully austenitic electrode primarily designed for welding the high temperature steel Outokumpu 353 MA, providing superior properties at temperatures up to 1175°C. The 353 MA filler metal has a fully austenitic structure, which makes it somewhat more sensitive to hot cracking than for example 253 MA filler metal. Welding should therefore be performed taking great care about low heat input and interpass temperature.

## Welding data

DC+	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. length mm mm					Metal recov. ~ %
	N	B	H	T	
2.5 300	0.59	71	0.85	59	136
3.25 350	0.67	34	1.46	73	147
4.0 350	0.67	24	1.83	83	137

## Typical analysis % (All weld metal)

C	Si	Mn	Cr	Ni
0.07	0.7	1.4	27.5	33.0

Ferrite 0 FN

## Mechanical properties

	Typical values (IIW)	Min. values EN 1600
Yield strength $R_{p0.2}$	385 N/mm <sup>2</sup>	–
Tensile strength $R_m$	565 N/mm <sup>2</sup>	–
Elongation $A_5$	33 %	–
Impact strength KV +20°C	85 J	–
Hardness approx.	200 Brinell	–

**Interpass temperature:** Max. 100°C.

**Heat input:** Max. 1.0 kJ/mm.

**Heat treatment:** Generally none.

**Structure:** Fully austenitic.

**Scaling temperature:** Approx. 1175°C (air).

**Corrosion resistance:** Superior properties for constructions running at service temperatures above 1000°C. Not intended for applications exposed to wet corrosion.

## Approvals

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## Welding positions

