

SAW wire/flux combination, high-alloyed, high corrosion resistant

Classification					
Wire:			Flux:		
EN ISO 14343-A	EN ISO 14343-B	AWS A5.23	EN ISO 14174		
-	-	-	-		

Characteristics and typical fields of application

Avesta 253 MA is designed for welding the high temperature steel Outokumpu 253 MA, used for example in furnaces, combustion chambers, burners etc. Both the steel and the consumable provide excellent properties at temperatures 850 – 1100 °C. The composition of the consumable is balanced to ensure a crack resistant weld metal.

Structure: Austenite with 3 – 10 % ferrite.

Scaling temperature: Approx. 1150 °C (air).

Corrosion resistance:

Excellence resistance to high temperature corrosion. Not intended for applications exposed to wet corrosion.

Base materials						
Outokumpu	EN	ASTM	BS	NF	SS	
153 MA [™]	1.4818	S30415	-	-	2372	
253 MA®	1.4835	S30815	-	-	2368	

Typical analysis of the solid wire and all-weld metal (wt.-%)

	С	Si	Mn	Cr	Ni	N	Ferrite
Wire	0.07	1.6	0.6	21.0	10.0	0.15	2 FN (WRC-92)
Flux 801	0.07	2.1	0.2	21.0	9.0		14 (DeLong)
Flux 805	0.07	1.8	0.2	21.5	9.0		15 (DeLong)

Mechanical properties of all-weld metal

Flux	Yield strength R _{p0.2}	Tensile strength R_m	Elongation (L ₀ =5d ₀)	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	−40 °C
Flux 801	470	690	39	90	-

Operating data

	Polarity:	Re-drying:	ø (mm)
	DC (+) / DC (-)	300 – 350 °C / min. 2 h	2.4
←			3.2

Preheating and Heat treatment are generally not necessary. Interpass temperature: Max. 150 °C. Heat input: max. 1.5 kJ/mm.

Approvals		