Avesta 2304 // Flux 805

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

Classification

EN ISO 14343-A	AWS A5.9
-	-

Characteristics and typical fields of application

Avesta 2304 is primarily designed for welding the duplex steel SAF 2304 and similar grades. Avesta 2304 provides a ferritic-austenitic weldment that combines many of the good properties of both ferritic and austenitic stainless steels. Avesta 2304 has a low content of molybdenum, which makes it well suited for nitric acid environments.

Structure: Austenite with 35 – 55 % ferrite.

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

Corrosion resistance:

Very good resistance to pitting and stress corrosion cracking in nitric acid environments.

Base materials

Similar duplex stainless steels, also combinations of duplex, ferritic and austenitic steels

Outokumpu 2304

1.4362 - UNS S32304

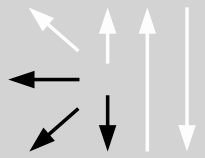
Typical analysis of the solid wire and all-weld-metal (wt.-%)

	C	Si	Mn	Cr	Ni	Mo	N	Ferrit
Wire	0.02	0.4	0.5	23.0	7.0	< 0.5	0.14	40 FN (WRC-92)
Flux 805	0.02	0.6	0.4	23.5	6.5	< 0.5	-	40 FN (WRC-92)

Mechanical properties of all-weld-metal

Flux	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J	Hardness
	MPa	MPa	%	+20 °C	Brinell
Flux 805	480	650	25	100	260

Operating data



Polarity	Re-drying of the flux:	ø (mm)
DC (+)	300 – 350 °C / min. 2 h	3,2

Heat treatment: Generally none (in special cases quench annealing at 1100 – 1150 °C).

Interpass temperature: max. 150 °C.

Heat input: 0.5 – 2.5 kJ/mm.

Approvals

In combination with

805	CE	TÜV		

All information provided is based upon careful investigation and intensive research.
However, we do not assume any liability for correctness and information is subject to change without notice.