Avesta P5 / Flux 805

SAW wire/flux combination, high-alloyed

Classification		
EN ISO 14343-A	EN ISO 14343-A	AWS A5.9
S 23 12 2 L	S S(309LMo)	ER 309LMo (mod.)

Characteristics and typical fields of application

Avesta P5 / Flux 805 is a wire flux combination for submerged arc welding. The wire is CrNiMo-alloyed and is applied in dissimilar joints of un-alloyed and stainless steels and also for cladding applications (first layer) on non-alloyed and low-alloyed steel grades.

When used for surfacing the composition is more or less equal to that of AISI 316 in the first layer.

For undiluted weld metal :

- Corrosion resistance of: Comparable / slightly better than with ER 316L-wire.
- Structure : austenite with 5 – 10 FN
- Scaling temperature: 950 °C (air)

Base materials

Suitable for dissimilar joints of un- or low-alloyed steels with stainless steels as well as for cladding on low-alloyed steels.

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

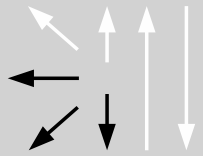
	C	Si	Mn	Cr	Ni	Mo	Ferrit
Wire	0.01	0.4	1.5	21.5	15.0	2.7	11 FN (DeLong)
Deposit	0.01	0.5	1.1	22.0	15.0	2.5	15 FN (DeLong)

Mechanical properties of all-weld metal

Heat treatment	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
u	> 380 (420)	> 550 (600	> 24 (30)	> 70

u untreated

Operating data



Polarity	Re-drying of the flux:	ø (mm)
DC (+)	300 – 350 °C / min. 2 h	2.4 3.2 4.0

Preheating and heat treatment: In general not applied (depending on the base metal)

In case the weld is submitted to a PWHT (e.g. low-alloyed steel grades) a possible embrittlement of the weld metal should be taken in consideration.

Interpass temperature max. 150°C

Heat input max. 2.0 kj/mm

Approvals

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