

Classification

SAW Solid wire		SAW Flux
AWS A5.9	EN ISO 14343-A	EN ISO 14174
ER308L	S 19 9 L	SA FB 2 DC

Characteristics and typical fields of application

Avesta S 308L S / Marathon 431 is a wire-flux combination for submerged arc welding of stainless steels grade like 1.4301/ASTM 304. The wire can also be used for welding titanium and niobium stabilised steels such as ASTM 321 and ASTM 347 in cases where the construction will be used at temperatures not exceeding 400°C. For higher temperatures a niobium stabilised consumable such as Avesta 347/MVNB is required.

Marathon 431 is a fluoride basic, agglomerated flux for CrNi stainless steel grades. It provides high degree of purity in the weld metal and provides good mechanical properties with good corrosion resistance. This flux does not have Cr-support.

Base Materials

ASTM 304, 304L, 304LN 321
EN 1.4301, 1.4307, 1.4311, 1.4541

Typical analysis of solid wire (wt.-%)

	C	Si	Mn	Cr	Ni
Wire	0.02	0.40	1.70	19.8	9.4
Weld Metal	0.02	0.50	1.20	19.7	9.4

Typical mechanical properties of all-weld metal

Typical Properties	Yield strength R _e N/mm ²	Tensile strength R _m N/mm ²	Elongation (L ₀ =5d ₀)	Impact work ISO-V KV J	
	MPa	MPa	%	+20°C	-196°C
As Welded	410	580	36	85	32

Welding Recommendation

Re-drying of sub arc Flux 300-350°C, for 2 hours

Intepass temperature : Max. 150°C
Heat Input : Max. 2.0 KJ/mm

Size and Packaging

Size mm	Spooling	Weight (Kg)
2.0	Basket (K415)	25
2.4	Basket (K415)	25
3.2	Basket (K415)	25
4.0	Basket (K415)	25