

## Classification

Wire:			Flux:
EN ISO 14343-A	EN ISO 14343-B	AWS A5.9	EN ISO 14174
S 19 13 4 L	-	ER317L	-

## Characteristics and typical fields of application

Avesta 317L/SNR is designed for welding type 18 Cr 14 Ni 3 Mo austenitic stainless steels and similar. The enhanced content of chromium, nickel and molybdenum compared to 316L gives improved corrosion properties in acid chloride containing environments.

Structure: Austenite with 5 – 10 % ferrite.

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

### Corrosion resistance:

Better resistance to general, pitting and intercrystalline corrosion in chloride containing environments than ASTM 316L. Intended for severe service conditions, i.e. in dilute hot acids.

## Base materials

Outokumpu	EN	ASTM	BS	NF	SS
4438	1.4438	317L	317S12	Z3 CND 19-15-04	2367
4439	1.4439	317LMN	-	Z3 CND 18-14-05 Az	-

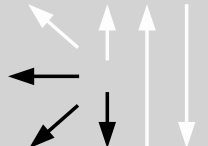
## Typical analysis of the solid wire and all-weld-metal (wt.-%)

	C	Si	Mn	Cr	Ni	Mo	Ferrite
Wire	0.02	0.4	1.7	19.0	13.5	3.5	9 FN (WRC-92)
Flux 801	0.02	0.6	1.2	20.0	9.5	-	13 (DeLong)
Flux 805	0.02	0.6	1.2	20.5	9.5	-	14 (DeLong)

## Mechanical properties of all-weld-metal

Flux	Yield strength R <sub>p0.2</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	-196 °C
801	440	590	37	65	-
805	410	580	36	65	35

## Operating data

	<b>Polarity:</b> DC ( + ) / DC ( - )	<b>Re-drying:</b> 300 – 350 °C / min. 2 h	<b>ø (mm)</b> 2.4
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Heat treatment: Generally none (in special cases quench annealing at 1050 °C). Interpass temperature: Max. 100 °C. Heat input: Max. 1.5 kJ/mm.

## Approvals

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