

## Classification

<b>AWS A5.9</b>	<b>EN ISO 14343-A</b>
ER316L	W 19 12 3 L

## Characteristics and typical fields of application

Avesta GT 316L is designed for welding austenitic stainless steel type 17Cr-12Ni-2Mo or similar. Corrosion resistance similar to matching low carbon and stabilized austenitic 17Cr-12Ni-2Mo steels and cast steel grades. Resistant to intergranular corrosion. The wire is also suitable for cryogenic application with excellent weld metal toughness down to -196°C.

## Base Materials

Outokumpu 4436, 4432, 4429, 4571; EN 1.4436, 1.4432, 1.4429, 1.4571; ASTM 316, 316L, S31653, 316Ti, BS 316S33, 316S13, 316S63, 320S31, NF Z7 CND 18-12-03, Z3 CND 17-12-03, Z3 CND 17-12 Az, Z6 CND 17-12; SS 2343, 2353, 2375, 2350.

## Typical analysis of solid wire (Wt.-%)

C	Si	Mn	Cr	Ni	Mo
0.02	0.4	1.60	18.5	12.3	2.51

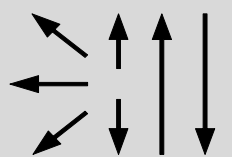
Ferrite Number ≈ 3-8 FN WRC 92

## Mechanical properties of the weld metal

Heat Treatment	Yield strength	Tensile strength	Elongation	Impact work	
	R <sub>e</sub> N/mm <sup>2</sup>	R <sub>m</sub> N/mm <sup>2</sup>	(L <sub>0</sub> =4d <sub>0</sub> )	ISO-V K <sub>V</sub> (J)	
	MPa	MPa	%	+20°C	-196°C
As Welded	470 (≥ 320)	620 (≥ 520)	40 (≥ 35)	140 (≥ 47)	55 (≥ 32)

Shielding gas Argon

## Operating Data

	<b>Polarity</b> DC (-)	Interpass temperature : 150°C Heat Input: Max. 2.0 KJ/mm Shielding gas EN ISO 14175 : I 1
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## Approval

ABS, DNV-GL, CE

## Size, Packing and Recommended welding parameters

Size (mm)	Kg / Tube	Kg / Box	Voltage (V)	Amperage (A)
1.60 x 1000	5.00	20.00	10 - 12	80 - 110
2.00 x 1000	5.00	20.00	14 - 16	100 - 130
2.40 x 1000	5.00	20.00	16 - 18	130 - 160
3.20 x 1000	5.00	20.00	17 - 20	160 - 200