Avesta 316L/SKR

TIG rod

Classifications		high-alloyed
EN ISO 14343-A:	AWS A5.9:	
W 19 12 3 L	ER316L	

Characteristics and field of use

Avesta 316L/SKR is designed for welding 1.4436/ASTM 316 type stainless steels. It is also suitable for welding steels that are stabilised with titanium or niobium, such as 1.4571/ASTM 316Ti, for service temperatures not exceeding 400°C. For higher temperatures, a niobium stabilised consumable such as Avesta 318-Si/SKNb-Si should be used. Avesta Welding also supplies a 316L type wire with high silicon content (316L-Si/SKR-Si). The higher silicon content (0.85%) improves the fluidity of the melt pool with a minimum of spatter and is therefore recommended if the demands on surface quality are high.

Marks (rods only)

W 19 12 3 L/ E316L

Base materials

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

Typical composition of welding rod (Wt-%)

C	Si	Mn	Cr	Ni	Mo
0.02	0.40	1.7	18.5	12.2	2.6

Ferrite 7 FN; WRC-92

Mechanical properties of all-weld metal

Heat Treatment	*Yield strength 0.2%*	*Tensile strength*	*Elongation (L_0=5d_0)*	*Impact values in J CVN*		
	MPa	*MPa*	*%*	*+20°C:*	*-40°C:*	*-196°C:*
untreated	460	610	33	140	130	70

Operating data

	Polarity = –	Shielding gas: Ar (99.95%) or Ar with an addition of 20 – 30% helium (He) or 1 – 5% hydrogen (H2).The addition of helium (He) and hydrogen (H2) will increase the energy of the arc.Gas flow rate 4 – 8 l/min.

Dimensions (mm)

1.0	*1.2*	*1.6*	*2.0*	*2.4*	*3.2*