

## OK Autrod 316L

A continuous solid corrosion resisting chromium-nickel-molybdenum wire for welding of austenitic stainless alloys of 18% Cr - 8% Ni and 18% Cr - 10% Ni - 3% Mo-types. OK Autrod 316L has a good general corrosion resistance, particularly against corrosion in acid and chlorinated environments. The alloy has a low carbon content which makes it particularly recommended where there is a risk of intergranular corrosion. The alloy is widely used in the chemical and food processing industries as well as in ship building and various types of architectural structures.

<b>Classifications Wire Electrode</b>	SFA/AWS A5.9 : ER316L EN ISO 14343-A : G 19 12 3 L Werkstoffnummer : ~1.4430
<b>Approvals</b>	CE EN 13479

Approvals are based on factory location. Please contact ESAB for more information.

<b>Alloy Type</b>	Austenitic (with appr. 8 % ferrite) 19 % Cr - 12 % Ni - 3 % Mo - Low C
<b>Shielding Gas</b>	M12, M13 (EN ISO 14175)

### Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
SHT (1050°C 0.5h)	350 MPa	590 MPa	42 %
As Welded	440 MPa	620 MPa	37 %
<b>Tested at 350°C.</b>			
As Welded	340 MPa	440 MPa	26 %
SHT (1050°C 0.5h)	250 MPa	430 MPa	31 %

### Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.02	1.8	0.4	0.015	0.015	12	18.5	2.7	0.1

### Typical Wire Composition %

C	Mn	Si	Ni	Cr	Mo	N	FN WRC-92
0.01	1.7	0.4	12.0	18.2	2.6	0.04	7

### Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
0.8 mm (0.030 in.)	55-160 A	15-24 V	4.0-17.0 m/min (157-669 in./min)	1.0-4.1 kg/h (2.2-9.0 lb/h)
0.9 mm (0.035 in.)	55-160 A	15-24 V	4.0-17.0 m/min (157-669 in./min)	1.0-4.1 kg/h (2.2-9.0 lb/h)
1.0 mm (0.040 in.)	80-240 A	15-28 V	4.0-16.0 m/min (157-630 in./min)	1.5-6.0 kg/h (3.3-13. lb/h)
1.14 mm (0.045 in.)	80-240 A	15-28 V	4.0-16.0 m/min (157-630 in./min)	1.5-6.0 kg/h (3.3-13. lb/h)
1.2 mm (0.047 in.)	100-300 A	15-29 V	3.0-14.0 m/min (118-551 in./min)	1.6-7.5 kg/h (3.5-16. lb/h)
1.6 mm (1/16 in.)	230-375 A	23-31 V	5.5-9.0 m/min (217-354 in./min)	5.2-8.6 kg/h (11.5-19. lb/h)