OK Autrod 316LSi

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

Specifications	
Classifications	EN ISO 14343-A : G 19 12 3 L Si SFA/AWS A5.9 : ER316LSi Werkstoffnummer : ~1.4430
Approvals	CE : EN 13479 CWB : ER316LSi DB : 43.039.05 DNV : NV 316 L UKCA : EN 13479 VdTÜV : 04268

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

Alloy Type	Austenitic (with approx. 8 % ferrite) 19% Cr - 12% Ni - 3% Mo - Low C - High Si
Shielding Gas	M12, M13 (EN ISO 14175)

Typical Tensile Properties			
Condition	**Yield Strength**	**Tensile Strength**	**Elongation**
AWS			
As Welded	460 MPa	630 MPa	40 %
ISO Tested at 350°C.			
As Welded	340 MPa	440 MPa	26 %
ISO			
As Welded	400 MPa	560 MPa	37 %

Typical Charpy V-Notch Properties		
Condition	**Testing Temperature**	**Impact Value**
AWS		
As Welded	-196 °C	50 J
ISO		
As Welded	20 °C	120 J
As Welded	-60 °C	95 J
As Welded	-110 °C	70 J
As Welded	-196 °C	45 J

Typical Weld Metal Analysis %									
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**	**Mo**	**Cu**	**FN WRC-92**
0.02	1.8	0.8	0.015	0.015	12	18.5	2.7	0.1	6
-	-	-	-	-	-	-	-	-	6

Typical Wire Composition %									
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**	**Mo**	**Cu**	**N**
0.012	1.7	0.75	0.013	0.015	11.8	18.4	2.6	0.1	0.06

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Typical Wire Composition %
FN WRC-92
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Deposition Data				
Diameter	**Current**	**Voltage**	**Wire Feed Speed**	**Deposition Rate**
0.8 mm	55-160 A	12-24 V	4.0-17.0 m/min	1.0-4.1 kg/h
0.9 mm	65-220 A	15-28 V	3.5-18.0 m/min	1.1-5.4 kg/h
1.0 mm	80-240 A	15-28 V	4.0-16.0 m/min	1.5-6.0 kg/h
1.2 mm	100-300 A	15-29 V	3.0-14.0 m/min	1.6-7.5 kg/h
1.6 mm	230-375 A	23-31 V	5.5-9.0 m/min	5.2-8.6 kg/h