

OK Autrod 316LSi

A continuous, solid, corrosion-resistant, chromium-nickel-molybdenum wire for welding austenitic stainless alloys of the 18% Cr -8% Ni and 18% Cr -10% Ni -3% Mo types.

OK Autrod 316LSi has good general corrosion resistance; in particular, the alloy has very good resistance to corrosion in acid and chlorinated environments. The alloy has a low carbon content which makes it particularly recommended when there is a risk 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 shipbuilding and various types of architectural structure.

Classifications Wire Electrode	SFA/AWS A5.9 : ER316LSi EN ISO 14343-A : G 19 12 3 L Si Werkstoffnummer : ~1.4430
Approvals	CE EN 13479 CWB ER316LSi DB 43.039.05 DNV-GL VL 316 L (M13) VdTUV 04268 NAKS/HAKC 0.8-1.2 mm

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
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Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
As Welded	400 MPa	560 MPa	37 %
Tested at 350°C.			
As Welded	340 MPa	440 MPa	26 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As Welded	-110 °C	70 J
As Welded	-196 °C	45 J
As Welded	20 °C	120 J
As Welded	-60 °C	95 J

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.02	1.8	0.8	0.015	0.015	12	18.5	2.7	0.1

Wire Composition

C	Mn	Si	Ni	Cr	Mo	Cu	Ferrite FN
0.01	1.8	0.9	12.2	18.4	2.60	0.12	7

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
0.6 mm	-	-	0.0-0.0 m/min	0.0-0.0 kg/h
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
1.14 mm	-	-	0.0-0.0 m/min	0.0-0.0 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

Recommended Welding Parameters

Wire Diameter	Wire Feed Speed
0.6 mm	0.0-0.0 m/min
1.14 mm	0.0-0.0 m/min