

OK Autrod 347Si

A continuous solid corrosion resisting chromium-nickel wire for welding of austenitic chromium nickel alloys of 18% Cr - 8% Ni-type.

OK Autrod 347Si has a good general corrosion resistance. The alloy is stabilized with Niobium to improve the resistance against intergranular corrosion of the weld metal. The higher silicon content improves the welding properties, such as wetting. Due to the niobium content this alloy is recommended for use at higher temperatures.

Classifications Wire Electrode	SFA/AWS A5.9 : ER347Si EN ISO 14343-A : G 19 9 Nb Si Werkstoffnummer : ~1.4551
Approvals	CE EN 13479 DB 43.039.13 NAKS/HAKC 1.0-1.6 mm VdTUV 09734

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

Alloy Type	Austenitic (with approx. 8 % ferrite) 19% Cr - 9% Ni - Nb
Shielding Gas	M12, M13 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
EN 98Ar/202			
As Welded	440 MPa (64 ksi)	640 MPa (93 ksi)	37 %
EN 98Ar/202			
Tested at 400°C.			
As Welded	340 MPa (49 ksi)	460 MPa (67 ksi)	26 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
EN 98Ar/202		
As Welded	20 °C (68 °F)	100 J (74 ft-lb)
As Welded	-60 °C (-76 °F)	70 J (52 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	Nb
0.04	1.7	0.7	0.010	0.005	9.8	19	0.1	0.1	0.6

Typical Wire Composition %

C	Mn	Si	Ni	Cr	Mo	Cu	Nb
0.04	1.7	0.7	9.8	19	0.1	0.10	0.60

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)
1.0 mm (0.040 in.)	80-240 A	15-28 V	3.5-18.0 m/min (138-709 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)