

OK Autrod 347Si

OK Autrod 347Si is an austenitic stainless steel filler material for welding of stainless steel alloys of 18Cr/8Ni/Nb and 18Cr/8Ni/Ti types where good general corrosion resistance is required. 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 the alloy is recommended for use at higher temperatures.

Specifications

Classifications	EN ISO 14343-A : G 19 9 Nb Si SFA/AWS A5.9 : ER347Si Werkstoffnummer : ~1.4550
Approvals	CE : EN 13479 DB : 43.039.13 NAKS/HAKC : 1.0-1.6 mm UKCA : EN 13479 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)

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation
EN M13			
As Welded	440 MPa	640 MPa	37 %
EN M13 Tested at 400°C.			
As Welded	340 MPa	460 MPa	26 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
EN M13		
As Welded	-60 °C	70 J
As Welded	20 °C	100 J

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

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

Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	Deposition Rate
0.8 mm	55-160 A	15-24 V	4.0-17.0 m/min	1.0-4.1 kg/h
1.0 mm	80-240 A	15-28 V	3.5-18.0 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