



Product Data Sheet

SUPERMIG 347Si

SS MIG WELDING WIRE
Stainless and Heat resistant steels

Classification:

AWS A 5.9 : ER 347Si
EN ISO 14343-A: G 19 9 Nb Si

Description: SUPERMIG 347Si G 19 9 Nb Si/ER 347Si type solid MAG welding wire, supplied precision layer wound, depositing a niobium stabilized 19Cr 9Ni weld metal. Suitable for use with Ar+2%O₂ or Ar+0.5...5%CO₂ mixed shielding gases.

SUPERMIG 347Si is used for welding of 321 and 347 grade stainless steels. The wire is used for a range of applications, including the fabrication of pipe, plate and vessels. The weld metal has a high resistance to corrosive media at service temperatures <400°C. The presence of niobium reduces the propensity of intergranular chromium carbide precipitation and thus reduces the susceptibility to intergranular corrosion. The increased silicon content results in increased weld pool fluidity to give a smooth deposit appearance.

Precision layer winding technologies ensure smooth, virtually trouble-free feeding.

Materials to be welded

AISI 347 - 321
1.4541 (X6CrNiTi18-10); 1.4301 (X4CrNi18-10); 1.4550 (X6CrNiNb18-10)

Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Cu	S	P	Nb
0.080 Max	1.60 - 2.50	0.65- 1.00	19.00-21.50	9.00 – 11.00	0.75 Max	0.75 max.	0.03 max.	0.03 max.	10 X C-1.00.

Typical All Weld Mechanical Properties

Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation A5 (%)	Impact Energy ISO – V (J) 20° C
≥400	≥550	≥30%	≥65

The chemistry and all weld mechanical properties will vary with the type of shielding gas used. Recommended shielding gas is EN ISO 14175 : M12, M13.

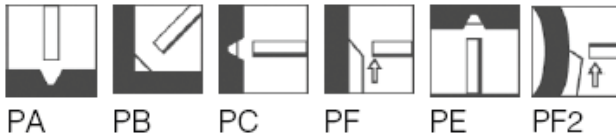
Welding Directions :- MIG welding can be performed as short, spray or pulsed arc. Short arc is preferably used for thin gauges, both for horizontal and positional welding. Spray arc increases the deposition rate. Welding with pulsed arc gives excellent possibilities for a good result in varying plate thicknesses in all positions. The highest flexibility using pulsed arc is achieved with 1.20 mm

Current Conditions:- DC (+)

Storage: - Keep dry and avoid condensation.

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Welding position:-



Recommended Welding Data:-

Diameter (mm)		0.8	1.0	1.2
Operating range				
Ar+1~2%CO ₂	Amp	40~120	80~160	100~210
	Volt	15~20	16~22	17~22
Ar+1~2%O ₂	Amp	160~210	180~280	200~300
	Volt	24~28	24~30	24~30

Packing Data:

Size (mm)	0.80	0.90	1.00	1.10	1.20	1.60
Weight (kg)	12.50/15.00	12.50/15.00	12.50/15.00	12.50/15.00	12.50/15.00	12.50/15.00



Kjellberg Finsterwalde Elektroden und Maschinen GmbH, Germany

Product Data Sheet

SUPERTIG 347Si

SS TIG WELDING WIRE
Stainless and Heat resistant steels

Classification:

AWS A 5.9 : ER 347 Si
EN 12072 : W 19 9 Nb Si

Description: SUPERTIG 347Si is a G 19 9 Nb Si/ER 347Si type Solid TIG welding rod depositing a Niobium stabilized 19Cr 9Ni Si weld metal suitable for use mainly with Ar shielding gas. SUPERTIG 347Si is used for the welding of 321 & 347 grade stainless steel in a wide range of applications, including the fabrication of pipe ,plate and vessels. The weld metal has high resistance to corrosive media at service temperatures < 400° C. The presence of niobium reduces the propensity of intergranular chromium carbide precipitation and thus reduces the susceptibility to intergranular corrosion. The increased silicon content results in increased weld pool fluidity to give a smooth deposit appearance.

Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Nb	S	P
0.080 Max	1.5- 2.50	0.65-1.00	19.00-21.50	9.00 -11.00	10 X C-Min 1.00 Max .	≤0.030	≤0.030

Materials to be welded :- AISI 347-321 ,1.4541 (X6CrNiTi18-10); 1.4301(X4CrNi18-10) ; 1.4550 (X6CrNiNb18-10) ; 1.4541

Typical All Weld Mechanical Properties

Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO-V(J) 20° C
≥ 400	≥ 550	≥ 30	≥ 65

Corrosion Resistance :- The presence of niobium reduces the possibility to intergranular Chromium carbide precipitation and thus reduces to susceptibility to intergranular corrosion .

Current Conditions: - DC (-)

Storage: - Keep dry and avoid condensation.

Welding Position:-



Packing Data

Size(mm) DxL	1.60 x 1000	2.00 x 1000	2.40 x 1000	3.20 x 1000	4.00 x 1000
Net wt. per tube(kg)	5	5	5	5	5
Net wt. per Box(kg)	20	20	20	20	20
