



Product Data Sheet

SUPERMIG 316LSi

SS MIG WELDING WIRE
Stainless and Heat resistant steels

Classification:

AWS A 5.9 : ER 316LSi
EN ISO 14343 : G 19 12 3 L Si

Description: SUPERMIG 316LSi is a G 19 12 3 LSi/ER 316LSi type solid MAG welding wire, supplied precision layer wound, depositing a low C-19Cr12Ni2.5Mo weld metal. Suitable for use with Ar+2%O₂ or Ar+0.5...5%CO₂ mixed shielding gases.

SUPERMIG 316LSi is used for welding of 316 and 316L grade stainless steels, in a wide range of applications including the fabrication of pipe and plate. The higher Si level results in a smooth weld bead shape and even appearance with excellent toe blending particularly in fillet welds. The weld metal has a high resistance to pitting and crevice corrosion by non-oxidizing acids. Used for applications with service temperatures <400°C..

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

Materials to be welded

1.4401 (X4CrNiMo17-12-2), 1.4435 (X2CrNiMo18-14-3) , AISI 316L
1.4571 (X6CrNiMoTi17-12-2), 1.4583 (X10CrNiMoNb18-12)

Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Cu	S	P
0.030 Max	1.60 - 2.50	0.65- 1.00	18.00-20.00	11.00 – 14.00	2.00-3.00.	0.75 max.	0.03 max.	0.03 max.

Typical All Weld Mechanical Properties

Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation A5 (%)	Impact Energy ISO – V (J) 20° C
≥350	≥510	≥30%	≥80

The chemistry and all weld mechanical properties will vary with the type of shielding gas used. Recommended shielding gas is EN ISO 14175 : Ar+0.5%≤O₂≤3%, Ar+0.5≤CO₂≤5 .

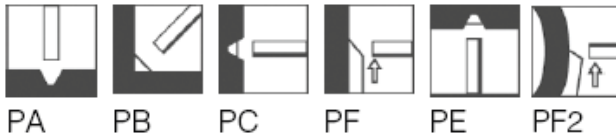
Welding Directions :- MIG welding can be performed as short, spray or pulsed arc. Short arc is preferably used for thin gauges, both for horizontal and positional welding. Spray arc increases the deposition rate. Welding with pulsed arc gives excellent possibilities for a good result in varying plate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

Product Data Sheet

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)	0.60	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	12.50/15.00

Product Data Sheet

SUPERTIG 316LSi

SS TIG WELDING WIRE
Stainless and Heat resistant steels

Classification :

AWS A 5.9 : ER 316 LSi
EN ISO 14343 : W 19 12 3 LSi

Description: SUPERTIG 316LSi is an extra low carbon 19 Cr/ 12 Ni/ 3 Mo /0.85 Si type stainless steel TIG rod similar in composition to ER 316LSi suitable for the welding or surfacing of having similar compositions. The weld metal has excellent creep strength up to 850°C. Ferrite controlled between 5 to 10%. The weld metal has excellent crack resistance, intergranular corrosion and creep resistance properties. Excellent mechanical properties & excellent bead appearance .

Materials to be welded

1.4401 (X4CrNiMo17-12-2), 1.4435 (X2CrNiMo18-14-3)
1.4571 (X6CrNiMoTi17-12-2), 1.4583 (X10CrNiMoNb18-12)
AISI 316L

Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Cu	S	P
0.03 max	1.50-2.20	0.65-1.00	18.00-20.00	11.00-14.00	2.00-3.00	0.75 max.	0.03 max.	0.03 max.

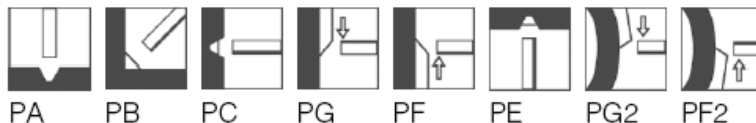
Typical All Weld Mechanical Properties

Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation A5 (%)	Impact Energy ISO-V(J) 20° C
≥ 350	≥ 510	≥ 30	≥ 47

Current Conditions: - DC (-)

Storage: - Keep dry and avoid condensation.

Welding Position:-



Packing Data

Size(mm) DxL	0.80 x 1000	0.90 x 1000	1.00 X1000	1.20 X 1000	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	5	5	5	5
Net wt. per Box(kg)	20	20	20	20	20	20	20	20	20
