



Product Data Sheet

SUPERMIG 309LSi

SS MIG WELDING WIRE
Stainless and Heat resistant steels

Classification:

AWS A 5.9 : ER 309LSi
EN ISO 14343 : G 23 12 LSi

Description: SUPERMIG 309LSi is a G 23 12 LSi/ER 309LSi type solid MAG welding wire, supplied precision layer wound, depositing a low C-23Cr12Ni weld metal. Suitable for use with Ar+2%O₂ or Ar+0.5...5%CO₂ mixed shielding gases.

SUPERMIG 309LSi is used for the welding of stainless steels to mild and medium tensile steels. It is used for depositing intermediate layers on steel prior to depositing 308 grade stainless steel. Also used for the welding of clad steels where service temperatures are below 300°C. The weld metal has a delta-ferrite content of ~12% resulting in a high resistance to hot cracking. 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

A312 TP309S; carbon steel to stainless steels joint .

Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Cu	S	P
0.030 max.	1.50 - 2.50	0.65- 1.00	23.00 - 25.00	12.00 - 14.00	0.75 max.	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	≥520	≥30%	≥100

The chemistry and all weld mechanical properties will vary with the type of shielding gas used. Recommended shielding gas is 98% Ar + 2% O₂ or Ar + 2 – 3% Co₂.

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

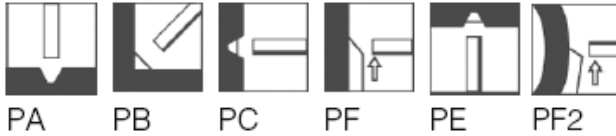
Corrosion Resistance :- Corresponding to ER308LSi, i.e. fairly good under severe conditions such as oxidising and cold dilute reducing acids.

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 309LSi

SS TIG WELDING WIRE
Stainless and Heat resistant steels

Classification :

AWS A 5.9 : ER 309 LSi

EN ISO 14343 : W 23 12 LSi

Description: SUPERTIG 309LSi is a stainless TIG rod conforming to ER 309LSi for welding austenitic stainless steels such as AISI 309LSi. It is also used to weld dissimilar steels and for buffer layers and buttering 18 Cr/ 8 Ni steels. Excellent oxidation and corrosion resistance in continuous service up to 1100°C. Ferrite content is 15% approx. Si-0.85% approx content improves weldability and bead appearance

Materials to be welded

A312 TP309S; carbon steel to stainless steels joint .

Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Cu	S	P
0.03 max	1.50-2.20	0.65-1.00	23.00-25.00	12.00-14.00	0.75 max.	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	≥ 520	≥ 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
