

FILINOX 307

MIG/MAG solid wires-TIG rods

Stainless and Heat resistant steels

FILINOX 307 is a G 18 8 Mn/ER 307 (similar) type solid MAG welding wire, supplied precision layer wound, depositing a C-18Cr8Ni6Mn weld metal. Suitable for use with Ar+2%O₂ or Ar+0.5...5%CO₂ mixed shielding gases.

FILINOX 307 is suitable for welding dissimilar steels between unalloyed steels, austenitic stainless steels or heat resisting steels, also used for welding of hardening and tempering steels, such as ballistic steels.

The increased silicon content promotes weld pool fluidity to give a smooth deposit appearance.

Stainless steel wire for welding dissimilar steels, hardening and tempering steels, armored, bullet-proof and 13% Mn steels.



Classification	
EN ISO	14343-A: G 18 8 Mn
AWS	A5.9: ER 307 (nearest)

Approvals	
DB	TÜV
●	●

CE

Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Cr	Ni
0.10	7	0.8	≤ 0.030	≤ 0.025	19	9

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Elongation A5 (%)	Impact Energy ISO - V (J)	
				+20 °C	-120 °C
As Welded	≥420	≥590	≥40	≥100	>32

Gas test: 98% Ar+2% CO₂

Shielding Gas - EN ISO 14175 : M12, M13, M20, M21

Materials

Ferrite-Austenite heterogeneous joints ("Black-White"),

X120Mn12 (1.3401); Armour plate

Difficult-to-weld steels

Storage

Keep dry and avoid condensation

Current condition and welding position

DC+



Packaging data

Packaging Type	BS300
Diam(mm) / weight(kg)	15
1.0	●

FILINOX 308LSi

MIG/MAG solid wires-TIG rods

Stainless and Heat resistant steels

FILINOX 308LSi is a G 19 9 LSi/ER 308LSi type solid MAG welding wire, supplied precision layer wound, depositing a low C-19Cr9Ni weld metal. Suitable for use with Ar+2%O₂ or Ar+0.5...5%CO₂ mixed shielding gases.

FILINOX 308LSi is used for welding of 304 and 304L grade stainless steel. The weld metal provides good corrosion resistance to intergranular attack from a range of liquid media. It is used for a wide range of applications including pipework and plate fabrication, vessel production etc.

The low carbon reduces the propensity to intergranular carbide precipitation, which increases the resistance to intergranular corrosion without the use of stabilizers. The increased silicon content results in increased weld pool fluidity to give a smooth deposit appearance.

Stainless steel wire type ER 308L used to weld AISI 304 and 304L stainless steels. The 0.85% Si content gives better weldability and appearance.



Classification	
EN ISO	14343-A: G 19 9 L Si
AWS	A5.9: ER 308LSi

Approvals	
DB	TÜV
●	●

CE

Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Cr	Ni
0.020	1.8	0.85	≤ 0.025	≤ 0.020	20	10

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Elongation A5 (%)	Impact Energy ISO - V (J)	
				20 °C	-120 °C
As Welded	≥ 350	≥ 520	≥ 35	≥ 80	≥ 32

Gas test: 98% Ar+2% O₂

Shielding Gas - EN ISO 14175 : M12, M13

Materials

1.4541 (X6CrNiTi18-10); 1.4301 (X4CrNi18-10); 1.4311 (X2CrNi18-10)

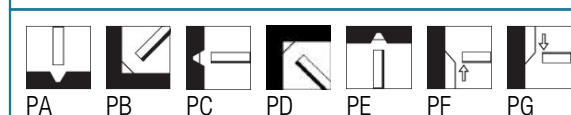
AISI 304 - 304L - 302

Storage

Keep dry and avoid condensation

Current condition and welding position

DC+



FILINOX 308LSi

MIG/MAG solid wires-TIG rods

Stainless and Heat resistant steels



Packaging data

Packaging Type	BS300	S200	S300
Diam(mm) / weight(kg)	15	5	15
0.6	●	●	●
0.8	●	●	●
1.0	●	●	●
1.2	●		

FILINOX 309LSi

MIG/MAG solid wires-TIG rods

Stainless and Heat resistant steels

FILINOX 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.

FILINOX 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.

Solid wire for welding 25% CR and 12% Ni steels with low carbon content. The silicon content makes for excellent weldability.



Classification	
EN ISO	14343-A: G 23 12 L Si
AWS	A5.9: ER 309LSi

Approvals	
DB	TÜV
●	●

CE

Chemical analysis (Typical values in %)

		C	Mn	Si	P	S	Cr	Ni
Wire	-	0.020	1.8	0.85	≤ 0.025	≤ 0.020	24	13

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Elongation A5 (%)	Impact Energy ISO - V (J)	
				+20 °C	-80 °C
As Welded	≥350	≥520	≥30	≥55	≥32


Gas test: M13

Shielding Gas - EN ISO 14175 : M12, M13

Materials

A312 TP309S; carbon steel to stainless steels joint

Storage
Keep dry and avoid condensation

Current condition and welding position
DC+


Packaging data

Packaging Type	BS300
Diam(mm) / weight(kg)	15
0.8	●
1.0	●
1.2	●

FILINOX 316LSi

MIG/MAG solid wires-TIG rods

Stainless and Heat resistant steels

FILINOX 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.

FILINOX 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-oxidising acids. Used for applications with service temperatures <400°C.

Stainless solid wire like ER 316L with high silicon percentage. Excellent mechanical and chemical characteristics. Excellent weldability.



Classification	
EN ISO	14343-A: G 19 12 3 L Si
AWS	A5.9: ER 316LSi

Approvals	
DB	TÜV
●	●

CE

Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Mo
0.020	1.4	0.85	≤ 0.025	≤ 0.020	19	12.5	2.6

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Elongation A5 (%)	Impact Energy ISO - V (J)	
				+20 °C	-120 °C
As Welded	≥350	≥510	≥30	≥80	>32

Gas test: M13

Shielding Gas - EN ISO 14175 : M12, M13

Materials

1.4571 (X6CrNiMoTi17-12-2), 1.4583 (X10CrNiMoNb18-12)


AISI 316L

1.4401 (X4CrNiMo17-12-2), 1.4435 (X2CrNiMo18-14-3)

Storage

Keep dry and avoid condensation

Current condition and welding position

DC+						
						
PA	PB	PC	PD	PE	PF	PG

Packaging data

Packaging Type	BS300	S200	S300
Diam(mm) / weight(kg)	15	5	15
0.6	●	●	●
0.8	●	●	●
1.0	●	●	●
1.2	●		

FILINOX 410

MIG/MAG solid wires-TIG rods

Stainless and Heat resistant steels

FILINOX 410 is a ER410/G13 type solid MAG welding wire supplied precision layer wound, depositing a C-12%Cr weld metal. Suitable for use with Ar-CO2 mix shielding gases.

FILINOX 410 is mainly used for deposition of overlays on carbon steels to resist corrosion, erosion or abraision.

Solid wire for welding 12% Cr (AISI 410) steels. These steels are self-hardening and consequently require pre-heating and stress relieving in order to obtain sufficiently ductile welds.



Classification

EN ISO	14343-A: G 13
AWS	A5.9: ER 410

Chemical analysis (Typical values in %)

		C	Mn	Si	P	S	Cr
Wire	-	0.1	0.45	0.4	≤ 0.030	≤ 0.020	13.0

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Elongation A5 (%)	Impact Energy ISO - V (J)
				+20 °C
750 °C x 1h	≥350	≥450	≥20	≥47

Gas test: M13

Shielding Gas - EN ISO 14175 : M12, M13

Materials

1.4000 (X6Cr13); 1.4006 (X12Cr13)

AISI 410

Storage

Keep dry and avoid condensation.

Current condition and welding position

DC+



Packaging data

Packaging Type	BS300
Diam(mm) / weight(kg)	15
1.0	●
1.2	●