

## MIG/MAG solid wires-TIG rods Stainless and Heat resistant steels

INERTFIL 309L is a G 23 12 L/ER 309L type solid MAG welding wire, supplied precision layer wound, depositing a low C-23Cr 12Ni weld metal. Suitable for use with Ar+2%O<sub>2</sub> or Ar+0.5...5%CO<sub>2</sub> mixed shielding gases.

INERTFIL 309L 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.

Classification		Approvals	Grade
EN ISO	14343-A: G 23 12 L	TÜV	●
AWS	A5.9: ER 309L	CE	

### Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Cr	Ni
0.020	1.8	0.45	≤ 0.025	≤ 0.020	24	13

### All-weld metal Mechanical Properties


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

Gas test: 98% Ar+2% O<sub>2</sub>

**Shielding Gas** - EN ISO 14175 : M12, M13

### Materials

Carbon steel to stainless steel joints,  
 Ferrite-Austenite heterogeneous joints ("Black-White"),  
 A312 TP309S;  
 Corrosion resistance surfacing

Storage	Current condition and welding position
Keep dry and avoid condensation	DC+
	

### Packaging data

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