



ER 309L

Stainless Steel WIRE/GTAW



Standards

EN/ISO-Standard - 14343-A
EN/ISO-Classification - W 23 12 L

AWS-Standard - A5.9
AWS-Classification - ER 309L

Features and Applications

- Austenitic stainless steel wire that has a low carbon content, which reduces the possibilities of intergranular carbide precipitation, while increasing the resistance to intergranular corrosion without the use of stabilisers such as niobium or titanium.
- Good performance under carburising atmospheres.
- High temperature oxidation and corrosion resistance.
- ER 309L can be used to weld dissimilar steels and buffer layers.
- Ideal for joining and overlay of stainless steels of similar composition, such as AISI 309 castings, and for joining of 3Cr12.
- Typically used on applications in industrial furnaces and boiler parts, annealing chambers, heat exchangers, fused salt treatment installations etc.
- **Test Certificates can be found online @wilkinsonstar247.com**



Approvals

CE, UKCA

Typical Base Materials

All 300 series austenitic stainless steel, 3Cr12, mild steels (cladding)*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

DC (-)

Chemical Composition % (Typical)

C %	Mn%	Si %	S %	P %	Ni %	Cr %	Mo %	Cu%
0.019	1.82	0.34	0.010	0.025	12.70	23.35	0.060	0.07

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
6011100548	1.00	1000	5	Plastic Tube
6011100549	1.20	1000	5	Plastic Tube
6011100333	1.60	1000	5	Plastic Tube
6011100335	2.40	1000	5	Plastic Tube
6011100396	3.20	1000	5	Plastic Tube

Mechanical Properties

Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Impact Strength (J)
≥510	≥320	≥25	≥50

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.