



# ER 309LSi

Stainless Steel WIRE/GMAW



## Standards

EN/ISO-Standard - 14343-A

EN/ISO-Classification - G 23 12 LSi

AWS-Standard - A5.9

AWS-Classification - ER 309LSi

## 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

42CrMo4, C45, 42MnV7, tool steels etc, 1.2780, 1.4541, 1.4550, 1.4710, 1.4712, 1.4713, 1.4724, 1.4729, 1.4740, 1.4741, 1.4742, 1.4746, 1.4762, 1.4745, 1.4825, 1.4826, 1.4828, 1.4832, 1.4878, X15CrNiSi20 12, G-X 40 CrNiSi209, AISI 446, AISI442, AISI309, UNS S30900, UNS S44200, UNS S4460\*

\* Illustrative, not exhaustive list

## Welding Positions

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

## Shielding Gases

EN ISO 14175 - M12, M13

## Polarity

DC (+)

## Welding Parameters - M12

Ø mm	0.80	1.00	1.20
Current (A)	40-120	80-160	100-210
Voltage (V)	15-20	16-22	17-23

## Welding Parameters - M13

Ø mm	0.80	1.00	1.20
Current (A)	160-210	180-280	200-300
Voltage (V)	24-28	25-30	26-32

## Mechanical Properties

Tensile Strength (N/mm <sup>2</sup> )	Yield Strength (N/mm <sup>2</sup> )	Elongation (%)	Impact Strength (J)
≥550	≥350	≥25	≥50

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

## Chemical Composition % (Typical)

C %	Mn%	Si %	S %	P %	Ni %	Cr %	Mo %	Cu%
0.022	1.88	0.86	0.006	0.021	12.59	23.49	0.010	0.04

## Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
6011100237	0.80	15	D300 PLW	72
6011100238	1.00	15	D300 PLW	72
6011100239	1.20	15	D300 PLW	72