

ER 309LSi

Stainless Steel WIRE/GMAW

Standards

EN/ISO-Standard - 14343-A
EN/ISO-Classification - G 23 12 L Si

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.
- Increased silicon content promotes weld pool fluidity to give a smooth deposit appearance.
- High temperature oxidation and corrosion resistance up to 300°C.
- Ideal for joining and overlay of stainless steels of similar composition, such as AISI 309 castings and for joining of 3Cr12.
- Good performance under carburising atmospheres.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on buffer layers before hardfacing, dissimilar joints between ferritic and austenitic steels and or difficult to weld steels etc.
- **Test Certificates can be found online @wilkinsonstar247.com**



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 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.

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

Liability: Whilst all reasonable efforts have been made to ensure the accuracy of the information contained, this information is subject to change without notice and can be only considered as suitable for general guidance.

