

ER 307Si

Stainless Steel WIRE/GMAW

Standards

EN/ISO-Standard - 14343-A
EN/ISO-Classification - G 18 8 Mn

AWS-Standard - A5.9
AWS-Classification - ER 307Si

Features and Applications

- Austenitic stainless steel wire with a significant amount of manganese, making the all weld metal in most cases fully austenitic.
- High mechanical strength and excellent crack resistance.
- Increased silicon content promotes weld pool fluidity to give a smooth deposit appearance.
- Ideal for dissimilar welding between steel and stainless steel, armour plate and exhaust systems etc.
- Suitable for depositing stress relaxing buffer layers on crack sensitive base metals including hardfacing.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on applications subject to atmospheric and corrosive media's.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

Armour plate, exhaust systems (type 409, 304), high Manganese austenitic steel, difficult to weld steels such as 42CrMo4, C45, 42MnV7, tool steels, 1.3401, X120Mn12 etc.*

* Illustrative, not exhaustive list

Welding Positions

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

Shielding Gases

EN ISO 14175 - M12, M13

Polarity

DC (+)

Mechanical Properties

Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Impact Strength (J)
≥500	≥350	≥25	≥50

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

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

Chemical Composition % (Typical)

C %	Mn %	Si %	S %	P %	Ni %	Cr %	Mo %	Cu %
0.045	6.06	0.82	0.005	0.029	8.02	18.35	0.05	0.030

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
6011100215	0.80	15	D300 PLW	72
6011100217	1.00	15	D300 PLW	72
6011100219	1.20	15	D300 PLW	72

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