



ER 2594 S (SUPER DUPLEX)

Stainless Steel WIRE/GTAW



Standards

EN/ISO-Standard - 14343-A

EN/ISO-Classification - W 25 9 4 N L

AWS-Standard - A5.9

AWS-Classification - ER 2594

Features and Applications

- Austenitic-ferritic duplex stainless steel wire characterised by a PREN (Pitting Resistance Equivalent Number) at least 40, thereby allowing the weld metal to be called "super duplex stainless steel".
- Provides excellent resistance to intergranular corrosion, pitting and stress corrosion cracking in chloride environments.
- Over-alloyed with nickel compared to the base material to ensure the optimum combination of microstructure, mechanical properties and corrosion resistance.
- This alloy is widely used in applications in which corrosion resistance is of the utmost importance.
- Typically used in the petrochemical and offshore industries, pulp and paper and in the production of pollution control equipment.
- **Test Certificates can be found online @wilkinsonstar247.com**



Approvals

CE, UKCA

Typical Base Materials

UNS S32750, S32760, J93380, J93404, S32550, J93370, J93372*

* 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 %	N %	W %
<0.03	<1.00	<1.00	<0.020	<0.035	9.28	25.12	3.60	0.59	0.22	0.62

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
6011100225	1.60	1000	5	Plastic Tube
6011100227	2.40	1000	5	Plastic Tube
6011100486	3.20	1000	5	Plastic Tube

Other diameters available on request

Mechanical Properties

Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Impact Strength (J)
≥620	≥550	≥18	≥50

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