

# ER 2594 (Super Duplex)

Stainless Steel WIRE/GTAW

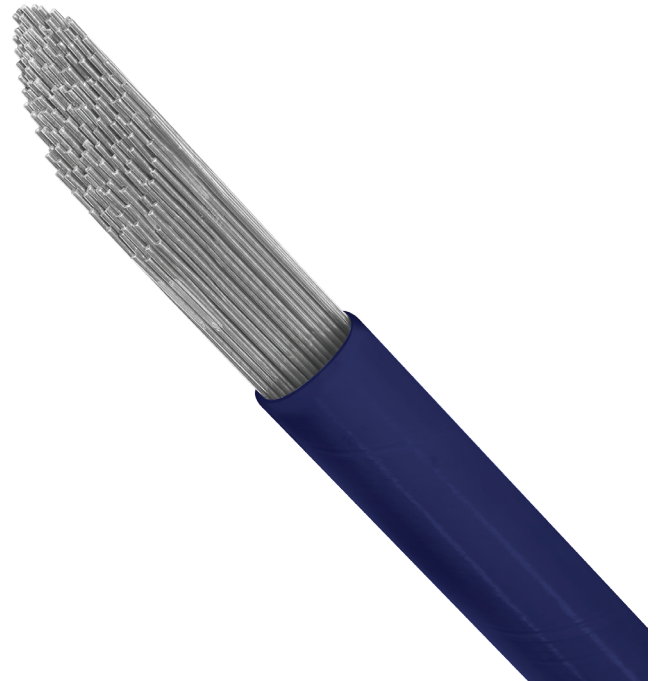
## Standards

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**



## 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 (-)

## Mechanical Properties

Tensile Strength (N/mm <sup>2</sup> )	Yield Strength (N/mm <sup>2</sup> )	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.

## 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	Cardboard Tube
6011100227	2.40	1000	5	Cardboard Tube
6011100486	3.20	1000	5	Cardboard Tube

**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.

