



# ER 347Si

Stainless Steel WIRE/GTAW



## Standards

EN/ISO-Standard - 14343-A

EN/ISO-Classification - W 19 9 Nb Si

AWS-Standard - A5.9

AWS-Classification - ER 347Si

## Features and Applications

- Austenitic stainless steel wire with a significant presence of niobium, that provides resistance to intergranular chromium carbide precipitation, thus increasing the resistance to intergranular corrosion.
- Increased silicon content promotes weld pool fluidity to give a smooth deposit appearance.
- Ideal for welding and overlay of chromium-nickel stainless steel base metals of similar composition, stabilised either by Nb or Ti (e.g. types 321 and 347).
- Typically used on applications for the chemical industry, particularly at high temperatures (e.g. equipment intermittently heated within a temperature range varying from 400°C to 800°C). Including applications such as firewalls, pressure vessels, food processing, dairy, oil and textile industries etc.
- **Test Certificates can be found online @wilkinsonstar247.com**



## Approvals

CE, UKCA

## Typical Base Materials

All 300 series austenitic stainless steel, particularly 321 and 347 (stabilised)\*

\* 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%  | Nb %  |
|-------|------|------|-------|-------|------|-------|-------|------|-------|
| 0.020 | 1.74 | 0.82 | 0.005 | 0.024 | 9.55 | 19.50 | 0.050 | 0.04 | 0.205 |

## Packaging Data

| Part No.   | Diameter Ø (mm) | Package Length (mm) | Package Weight (Kg) | Package Type |
|------------|-----------------|---------------------|---------------------|--------------|
| 6011100360 | 1.60            | 1000                | 5                   | Plastic Tube |
| 6011100362 | 2.40            | 1000                | 5                   | Plastic Tube |
| 6011100363 | 3.20            | 1000                | 5                   | Plastic Tube |

## 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.