

## MIG/MAG solid wires-TIG rods Stainless and Heat resistant steels

INERTFIL 347 is a G 19 9 Nb/ER 347 type solid MAG welding wire, supplied precision layer wound, depositing a niobium stabilised 19Cr9Ni weld metal. Suitable for use with Ar+2%O<sub>2</sub> or Ar+0.5...5%CO<sub>2</sub> mixed shielding gases.

INERTFIL 347 is used for welding of 321 and 347 grade stainless steels. The wire is used for a range of applications, including the fabrication of pipe, plate and vessels. The weld metal has a high resistance to corrosive media at service temperatures <400°C.

The presence of niobium reduces the possibility of intergranular chromium carbide precipitation and thus reduces the susceptibility to intergranular corrosion.

| Classification |                    | Approvals | Grade |
|----------------|--------------------|-----------|-------|
| EN ISO         | 14343-A: G 19 9 Nb | DB        | ●     |
| AWS            | A5.9: ER 347       | CE        |       |

### Chemical analysis (Typical values in %)

|      | C     | Mn  | Si   | P       | S       | Cr   | Ni | Nb  |
|------|-------|-----|------|---------|---------|------|----|-----|
| Wire | 0.040 | 1.6 | 0.45 | ≤ 0.025 | ≤ 0.020 | 19.5 | 10 | 0.5 |

### All-weld metal Mechanical Properties

| Heat Treatment | Yield Strength (MPa) | Tensile Strength (MPa) | Elongation A5 (%) | Impact Energy ISO - V (J) |         |
|----------------|----------------------|------------------------|-------------------|---------------------------|---------|
|                |                      |                        |                   | +20 °C                    | -120 °C |
| As Welded      | ≥400                 | ≥550                   | ≥30               | ≥65                       | ≥32     |


Gas test: M13

**Shielding Gas** - EN ISO 14175 : M12, M13

### Materials

AISI 347 - 321

1.4541 (X6CrNiTi18-10); 1.4301 (X4CrNi18-10); 1.4550 (X6CrNiNb18-10);

| Storage                         | Current condition and welding position   |
|---------------------------------|--|
| Keep dry and avoid condensation | DC+  |
|                                 |  |

### Packaging data

| Packaging Type        | BS300 | S300 |
|-----------------------|-------|------|
| Diam(mm) / weight(kg) | 15    | 15   |
| 0.8                   | ●     | ●    |
| 1.0                   | ●     | ●    |
| 1.2                   | ●     | ●    |