## Rutile electrode

# SUPER OPTIMAL 347

**Classification**

***AWS A* 5.4:** E 347-16 ***DIN 8556*:** E 19 9 Nb R 23

**DIN EN 1600:** E 19 9 Nb R 32 ***Werkstoff Nr:*** 1.4551

**Description and applications**

Rutile-basic-coated austenitic stabilized steel electrode with approx 5-8% ferrite.
Coating with very low moisture pick up. Soft fusion, without spatters, very easy slag removal, exceptional weld bead appearance, easy restriking. Electrode for joint welding on unstabilized and stabilized austenitic, chemical resistant CrNi-steels at working temperature upto 400°C, for corrosion resistant Cr-steels and alloyed similar claddings.

**Base materials**

| Stainless steels for general use: | | | | |
|---|---|---|---|---|
| **UNS** | **Alloy** | **EN 10088** | **Material N[a]** | **UGINE** |
| S30400 | 304 | X5CrNi18-10 | 1.4301 | UGINOX 18-9, B D, E |
| S30403 | 3O4L | X2CrNi19-11 | 1.4306 | UGINOX 18-10 L |
| S32100 | 321 | X6CrNiTi18-10 | 1.4541 | UGINOX 18-10 T |
| S34700 | 347 | X6CrNiNb18-1O | 1.4550 | |

**All weld metal mechanical properties (typical)**

| Tensile Strength $R_m$ (N/Mm$^2$) | Elongation % | ISO- V J RT |
|---|---|---|
| 590 | 40 | 60 |

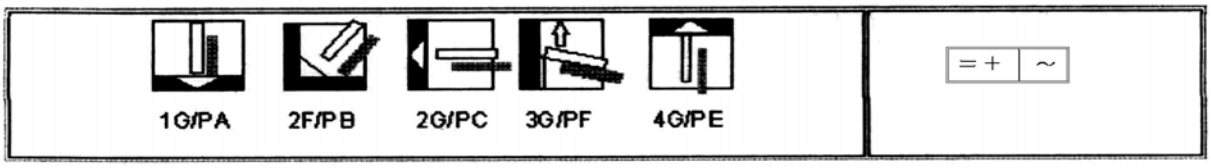
**Typical weld metal Chemical Composition (%)**

| C | Si | Mn | Cr | Ni | S | P | Nb |
|---|---|---|---|---|---|---|---|
| 0.04 | 0.80 | 1.00 | 19.0 | 10.0 | 0.015 | 0.020 | 0.45 |

**Amperes (A)**

| 2.50 | 3.15 | 4.00 | 5.00 |
|---|---|---|---|
| 50-80 | 80- 110 | 110- 150 | 150-180 |

**Welding instruction** interpass temperature :< 150°C. Rebaking if necessary 1 hour at 300-350°C.

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# Product Data Sheet

## Rutile electrode — SUPER OPTIMAL 347-17

**Classification**

***AWS A* 5.4:** E 347-17 ***DIN 8556*:** E 19 9 Nb R 23

**DIN EN 1600:** E 19 9 Nb R 32 ***Werkstoff Nr:*** 1.4551

**Description and applications**

Rutile-silica-basic-coated austenitic stabilized stainless steel electrode with approx 6 to 10FN. Coating with very low moisture pick up. Soft fusion, without spatters, very easy slag removal, exceptional weld bead appearance, easy restriking. Electrode for joint welding on unstabilized and stabilized austenitic, chemical resistant CrNi-steels at working temperature upto 400°C, for corrosion resistant Cr-steels and alloyed similar claddings.Nb stabilizer provides high resistant to intergranular corrosion.

**Base materials**

| Stainless steels for general use: | | | | |
|---|---|---|---|---|
| **UNS** | **Alloy** | **EN 10088** | **Material N[a]** | **UGINE** |
| S30400 | 304 | X5CrNi18-10 | 1.4301 | UGINOX 18-9, B D, E |
| S30403 | 3O4L | X2CrNi19-11 | 1.4306 | UGINOX 18-10 L |
| S32100 | 321 | X6CrNiTi18-10 | 1.4541 | UGINOX 18-10 T |
| S34700 | 347 | X6CrNiNb18-1O | 1.4550 | |

**All weld metal mechanical properties (typical)**

| Tensile Strength $R_m$ (N/mm²) | Elongation % | ISO- V J RT |
|---|---|---|
| 620 | 40 | 60 |

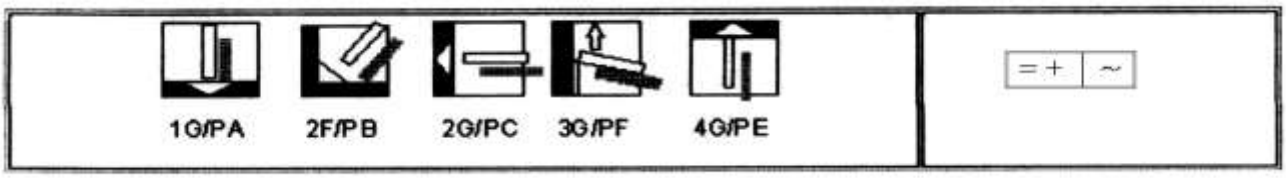
**Typical weld metal Chemical Composition (%)**

| C | Si | Mn | Cr | Ni | S | P | Nb |
|---|---|---|---|---|---|---|---|
| 0.04 | 0.90 | 0.80 | 20.0 | 10.00 | 0.015 | 0.020 | 0.45 |

**Amperes (A)**

| 2.50 | 3.15 | 4.00 | 5.00 |
|---|---|---|---|
| 50-80 | 80- 110 | 110- 150 | 150-180 |

**Welding instruction** interpass temperature :< 150°C. Rebaking if necessary 1 hour at 300-350°C.

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