

Solid Wire Rod for TIG Welding

BA-TIG 347

Classification: EN ISO 14343-A: **W 19 9 Nb**
SFA-5.9: **ER347**

Main Application:

BA-TIG 347 is a solid wire rod for GTAW, suitable to weld 18Cr/10Ni stabilized with Ti or Nb austenitic stainless steels grades 321 and 347. Also suitable for welding similar unstabilized grades 304 or 304L. BA-TIG 347 has high resistance to intergranular corrosion.

Typical analysis and chemical composition acc. to EN ISO 14343-A and AWS A5.9: (Weight Percent)

| Wire rod | C | Si | Mn | Mo | Ni | Cr | Nb | P | S | Cu total |
|----------------------------------|------|----------|---------|------|--------------|-----------|----------------|-------|-------|----------|
| Typical analysis BA-TIG 347 | 0.05 | 0.4 | 1.6 | 0.1 | 9.8 | 19.5 | 0.6 | 0.015 | 0.013 | 0.10 |
| W 19 9 Nb acc. to ISO 14343-A | 0.08 | 0.65 | 1.0-2.5 | 0.3 | 9.0- 11.0 | 19.0-21.0 | 10xC to 1.0 | 0.03 | 0.02 | 0.3 |
| ER347 acc. to AWS A5.9 | 0.08 | 0.3-0.65 | 1.0-2.5 | 0.75 | 9.0- 11.0 | 19.0-21.5 | 10xC to 1.0 | 0.03 | 0.03 | 0.75 |

All - Weld Metal Mechanical Properties / Welding Data:

Heat Treatment: As Welded
Yield Strength Re, N/mm² (ksi): 400 (58)
Tensile Strength Rm, N/mm² (ksi): 550 (80)
Elongation A5 [%]: >28
Impact Energy ISO-V, J (ft lbs): +20°C: 70 (52)
Current/polarity: DC -
Shielding Gas: ISO 14175: I1

Base Materials:

1.4550/ X6CrNiNb18-10, 1.4541/ X6CrNiTi18-10, 1.4552/ GX5CrNiNb19-11,1.4301/ X5CrNi18-10,1.4312/
GX10CrNi18-8, 1.4546/ X5CrNiNb18-10, 1.4311/ X2CrNi18-10, 1.4306/ X2CrNi19-11
AISI 347, 321, 302, 304, 304L, 304LN, ASTM A296 Gr. CF 8 C, A157 Gr. C9, A320 Gr. B8C or D

Package Forms:

5 kg carton boxes as standard package form for GTAW wire rods.

Diameter:

1,2 – 3,2 mm. Sizes and tolerances acc. to ISO 544 and AWS A5.9.

Wire Rod Surface:

Smooth finish free from surface defects and foreign matter.