

# Solid Wire Rod for TIG Welding

# BA-TIG 316L

**Classification:** EN ISO 14343-A: **W 19 12 3 L**  
SFA-5.9: **ER316L**

## Main Application:

BA-TIG 316L is a solid wire rod for GTAW, suitable to weld austenitic stainless steels grades 1.4401 / 316, 1.4404 / 316L, 1.4435 / 316L. Suitable for service temperature from -120°C to + 400°C. Also suitable for the welding of grades 316Nb or Ti stabilized (347 and 321) if service temperature below 400 °C.

## 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	P	S	Cu total
Typical analysis BA-TIG 316L	0.015	0.4	1.7	2.7	12.0	19.0	0.020	0.013	0.15
W 19 12 3 L acc. to ISO 14343-A	0.03	0.65	1.0-2.5	2.5-3.0	11.0- 14.0	18.0- 20.0	0.03	0.02	0.3
ER316L acc. to AWS A5.9	0.03	0.30- 0.65	1.0-2.5	2.0-3.0	11.0- 14.0	18.0- 20.0	0.03	0.03	0.75

Also available BA-TIG 316LF with low ferrite content.

## All - Weld Metal Mechanical Properties / Welding Data:

Heat Treatment	As Welded
Yield Strength Re, N/mm <sup>2</sup> (ksi)	350 (51)
Tensile Strength Rm, N/mm <sup>2</sup> (ksi)	550 - 650 (80-94)
Elongation A5 [%]	>30
Impact Energy ISO-V, J (ft lbs)	+20°C: 100 (74)
Current/polarity	DC -
Shielding Gas	ISO 14175: I1

## Base Materials:

1.4401/ X5CrNiMo17-12-2, 1.4404/ X2CrNiMo17-12-2, 1.4435/ X2CrNiMo18-14-3, 1.4436/ X3CrNiMo17-13-3, 1.4571/ X6CrNiMoTi17-12-2, 1.4580/ X6CrNiMoNb17-12-2, 1.4583/ X10CrNiMoNb18-12, 1.4409/ GX2CrNiMo 19-11-2, UNS S31653; AISI 316L, 316Ti, 316Cb

## Package Forms:

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

## Diameter:

1,0 – 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.