

# Solid Wire Rod for TIG Welding

# BA-TIG 309L

**Classification:** EN ISO 14343-A: **W 23 12 L**  
SFA-5.9: **ER309L**

## Main Application:

BA-TIG 309L is a solid wire rod for GTAW suitable for joining stainless Cr-Ni steels type 309, Cr-steels and dissimilar steels like austenitic stainless steels to mild or low-alloyed steels, buffer layers and overlays on C-Mn, mild steel or low alloy steels and for joining 304L/321. Also recommended for welding 12% Cr ferritic steels.

## 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 309L	0.015	0.4	1.8	0.1	13.0	23.5	0.020	0.013	0.15
W 23 12 L acc. to ISO 14343-A	0.03	0.65	1.0-2.5	0.3	11.0- 14.0	22.0- 25.0	0.03	0.02	0.3
ER309L acc. to AWS A5.9	0.03	0.30- 0.65	1.0-2.5	0.75	12.0- 14.0	23.0- 25.0	0.03	0.03	0.75

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

Heat Treatment	As Welded
Yield Strength Re, N/mm <sup>2</sup> (ksi)	400 (58)
Tensile Strength Rm, N/mm <sup>2</sup> (ksi)	550 - 600 (80-87)
Elongation A5 [%]	>30
Impact Energy ISO-V, J (ft lbs)	+20°C: 140 (103)
Current/polarity	DC -
Shielding Gas	ISO 14175: I1

## 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.