

# Solid Wire Electrode for Submerged Arc Welding

# BA-WIRE 309LNb

**Classification:** EN ISO 14343-A – S 23 12 Nb  
SFA-5.9 / AWS A5.9 – ER(309LNb)

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

Wire electrode	C	Si	Mn	Mo	Ni	Cr	Nb	P	S	Cu total
Typical analysis BA-WIRE 309LNb	0.018	0.3	1.9	0.1	12.5	24.0	0.8	0.020	0.013	0.15
S 23 12 Nb acc. to ISO 14343-A	0.08	1.0	1.0–2.5	0.5	11.0–14.0	22.0– 25.0	10x%C–1.0	0.03	0.02	0.5
ER(309LNb) 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	10x%C–1.0	0.03	0.03	0.75

## Application:

BA-WIRE 309LNb is a submerged arc welding wire niobium-stabilized similar to BA-WIRE 309L with the addition of Nb. Suitable for overlay on carbon and low-alloy steels, when a type 347 overlay is required.

## Base Materials:

- Steel cladding when chemistry of AISI 347 or AISI 321 is required for the first layer. Overlay welding of 2.25Cr-1Mo steels.  
Suitable fluxes: BF 38, WP 380

Flux type suitability is strongly dependent on its application. In combination with the wire electrode the most suitable flux should match the requirements of the plate material as closely as possible under the existing welding conditions. Further information can be obtained from the technical flux data sheets.

## Package forms:

Coils, spools, drums and spiders as standard package forms for SAW-wire electrodes, different package forms on request.

## Diameter:

1.6 – 4.0 mm; sizes and tolerances acc. to ISO 544 and AWS A5.9.

## Wire electrode surface:

Smooth finish free from surface defects and foreign matter.