

Solid Wire Electrode for Submerged Arc Welding

BA-WIRE 318

Classification: EN ISO 14343-A – S 19 12 3 Nb
SFA-5.9 – ER318

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 318	0.03	0.45	1.4	2.6	11.5	19.0	0.60	0.015	0.013	0.1
S 19 12 3 Nb acc. to ISO 14343-A	0.08	0.65	1.0–2.5	2.5–3.0	11.0–14.0	18.0–20.0	10x%C–1.0	0.03	0.02	0.5
ER318 acc. to AWS A5.9	0.08	0.30–0.65	1.0–2.5	2.0–3.0	11.0–14.0	18.0–20.0	8x%C–1.0	0.03	0.03	0.75

Application:

BA-WIRE 318 is a submerged arc welding wire intended for welding 19Cr/12Ni/3Mo stabilized Ti grades like 1.4571/316Ti. Also suitable for the welding of similar unstabilized grades 316 or 316L. BA-WIRE 318 is suitable for service temperatures from –120 °C to +400 °C and has high resistance to intergranular corrosion.

Base Materials:

- 1.4571/ X6CrNiMoTi17-12-2, 1.4580/ X6CrNiMoNb17-12-2, 1.4401/ X5CrNiMo17-12-2, 1.4581/ GX5CrNiMoNb19-11-2, 1.4437/ GX6CrNiMo18-12, 1.4583/ X10CrNiMoNb18-12, 1.4436/ X3CrNiMo17-13-3 AISI 316L, 316Ti, 316Cb
- Suitable flux: 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.