

Solid Wire Electrode for Submerged Arc Welding

BA-WIRE 310

Classification: EN ISO 14343-A – S 25 20
SFA-5.9 / AWS A5.9 – ER310

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	P	S	Cu total
Typical analysis BA-WIRE 310	0.12	0.3	1.9	0.1	21.0	26.0	0.015	0.013	0.2
S 25 20 acc. to ISO 14343-A	0.08–0.15	2.0	1.0–2.5	0.5	18.0–22.0	24.0–27.0	0.03	0.02	0.5
ER310 acc. to AWS A5.9	0.08–0.15	0.30–0.65	1.0–2.5	0.75	20.0–22.5	25.0–28.0	0.03	0.03	0.75

Application:

BA-WIRE 310 is a submerged arc welding wire used for joining heat resistant fully austenitic steels type 25Cr/20Ni. Service temperature up to 1,100 °C in air and up to 1,050 °C in oxidizing sulphurous atmospheres and in reducing sulphurous atmospheres up to 650 °C. Service temperatures between +650 and +900 °C should be avoided due to the risk of embrittlement.

Base Materials:

- Austenitic steels:
1.4841/ X15CrNiSi25-20, 1.4845/ X12CrNi25-21, 1.4828/ X15CrNiSi20-12,
1.4840 /G-X15CrNi25-20, 1.4846/ G-X40CrNi25-21, 1.4826/ G-X40CrNiSi22-9
- Ferritic-perlitic steels:
1.4713/ X10 CrAl7, 1.4724/ X10CrAl13, 1.4742/ X10CrAl18, 1.4762/ X10CrAl25,
1.4710/ G-X30CrSi6, 1.4740/ G-X40CrSi17
AISI 305, 310, 314; ASTM A297 HF; A297 HJ
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 – 3.2 mm; sizes and tolerances acc. to ISO 544 and AWS A5.9.

Wire electrode surface:

Smooth finish free from surface defects and foreign matter.