

Solid Wire Electrode for Submerged Arc Welding

Classification:

ISO 24598-A -
SFA 5.23 / AWS A5.23 -

S S CrMo91
EB91

Characteristics:

Submerged arc welding wire for high temperature, creep resistant, modified 9%Cr1%Mo martensitic steel (T91/P91). Approved for service temperatures up to 650 °C. Alloy T91/P91 is widely used in the power generating, ultra-super-critical (USC) power plant boilers and turbines, chemical and oil and gas industries.

Typical analysis and chemical composition acc. to EN ISO 24598-A and AWS A5.23:

| Wire electrode | C | Si | Mn | Mo | Ni | Cr | P | S | V | Nb | Cu total |
|-----------------------------------|---------------|------|---------|---------------|-------------|--------------|-------|-------|---------------|---------------|--------------------------------|
| Typical analysis BA-S2CrMo91 | 0.10 | 0.25 | 0.50 | 1.0 | 0.60 | 8.70 | 0.008 | 0.008 | 0.20 | 0.04 | 0.08 |
| S S CrMo91 acc. to ISO 24589-A | 0.07- 0.15 | 0.60 | 0.4-1.5 | 0.8-1.2 | 0.4- 1.0 | 8.0- 10.5 | 0.020 | 0.020 | 0.15- 0.30 | 0.03- 0.10 | 0.26 N 0.02-0.07 |
| EB91 acc. to AWS A5.23 | 0.07- 0.13 | 0.50 | 1.25 | 0.85- 1.15 | 1.0 | 8.5- 10.5 | 0.010 | 0.010 | 0.15- 0.25 | 0.02- 0.10 | 0.10 N 0.03-0.07 Al 0.04 |

Base Materials:

- P91, 9%Cr1%Mo modified, creep resisting martensitic steels.
- X10CrMoVNb9-1
- ASTM: A182/A336 grade F91
- A213 grade T91
- A217 grade C12A
- A234 grade WP91
- A335 grade P91
- A387 grade 91

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..

Diameter:

1.6 – 2.4 mm; sizes and tolerances acc. to ISO 544 and AWS A5.23.

Wire electrode surface:

Copper-coated, smooth finish free from surface defects and foreign matter.

Package forms:

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