

# Solid Wire Electrode for Submerged Arc Welding

## BA-S CrMo5

**Classification:** EN ISO 24598-A – S CrMo5  
SFA-5.23 / AWS A5.23 – EB6

**Typical analysis and chemical composition acc. to EN ISO 24598-A and AWS A5.23:** (Weight Percent)

| Wire electrode                 | C         | Si        | Mn        | Mo        | Ni  | Cr        | P     | S     | Cu total                 |
|--------------------------------|-----------|-----------|-----------|-----------|-----|-----------|-------|-------|--------------------------|
| Typical analysis<br>BA-S CrMo5 | 0.08      | 0.30      | 0.50      | 0.60      | 0.1 | 6.0       | 0.015 | 0.015 | 0.14                     |
| S CrMo5 acc. to<br>ISO 24598-A | 0.03–0.10 | 0.20–0.50 | 0.40–0.75 | 0.50–0.80 | 0.3 | 5.5–6.5   | 0.020 | 0.020 | 0.3<br>V 0.03<br>Nb 0.01 |
| EB6 acc. to<br>AWS A5.23       | 0.10      | 0.05–0.50 | 0.35–0.70 | 0.45–0.70 | –   | 4.50–6.50 | 0.025 | 0.025 | 0.35                     |

### Characteristics:

Submerged arc welding wire suited for high temperature creep resistant 5%Cr0.5%Mo steels. The 5%Cr0.5%Mo creep resistant alloy is used for hot hydrogen service, high temperature strength at service temperatures up to +600 °C. Typical applications are found in oil refineries.

### Base Materials:

- 5%Cr0.5%Mo creep heat-resistant steels. X12CrMo5, GX12CrMo5  
ASTM: A182/A336 grade F5, A199/A213 grade T5, A217 grade C5, A234 grade WP5, A335 grade P5,  
A387 grade 5  
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 –3.2 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.