

Solid Wire Electrode for Submerged Arc Welding

Classification:

ISO 14171-A -
SFA 5.23 / AWS A5.23 -

S3Ni1Mo
EF3

Characteristics:

NiMo-alloyed wire electrode with higher Mn-content for submerged arc welding of high tensile fine grain steels in vessel and apparatus construction, high tensile pipe steels and high strength pipe steels.

Typical analysis and chemical composition acc. to EN ISO 14171-A and AWS A5.23:

Wire electrode	C	Si	Mn	Mo	Ni	Cr	P	S	CU total
Typical analysis BA-S3NiMo1	0.12	0.19	1.73	0.53	0.95	0.04	0.009	0.001	0.07
S3Ni1Mo acc. to ISO 14171-A	0.07-0.15	0.05-0.15	1.30-1.80	0.45-0.65	0.80-1.20	0.20	0.020	0.020	0.30
EF3 acc. to AWS A5.23	0.10-0.18	0.30	1.50-2.40	0.40-0.65	0.70-1.10		0.025	0.025	0.35

Base Materials:

- Fine grain steels acc. to EN 10025, EN 10028: P460N/S460NL to S550QL Quenched and tempered steels such as N-A-XTRA 70, 20MnMoNi5, HY80
Suitable fluxes: BF 5.1, BF 6.5 and BF 10
- Pipe steels acc. to ISO 3183, EN 10208 and API-5: L485Q/X70 to L555Q/X80
Suitable fluxes: BF 6.30 and BF 6.5
- Shipbuilding steels: high strength fine grain steels up to 460 MPa yield strength
Suitable flux: BF 10

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:

2.0 – 5.0 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.