

Solid Wire Electrode for Submerged Arc Welding

Classification:

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

S3Ni1Mo0,2
ENi5

Characteristics:

NiMo-alloyed wire electrode with higher Mn-content for submerged arc welding of high tensile pipe steels and high tensile fine grain steels in vessel and apparatus construction as well as Off-Shore applications. Especially suitable for low temperature applications because of low Mo-content. Best suitable if requirements for sour-gas environment are to match Ni < 1.0 % .

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-S3NiMo1/4	0.12	0.15	1.58	0.23	0.95	0.04	0.005	0.002	0.08
S3Ni1Mo0,2 acc. to ISO 14171-A	0.07-0.15	0.10-0.35	1.20-1.60	0.15-0.30	0.80-1.20	0.15	0.015	0.015	0.30
ENi5 acc. to AWS A5.23	0.12	0.05-0.30	1.20-1.60	0.10-0.30	0.75-1.25		0.020	0.020	0.35

Base Materials:

- Pipe steels acc. to ISO 3183, EN 10208 and API-5: L450Q/X65 to L555Q/X80
Suitable fluxes: BF 6.30 and BF 6.5
- Fine grain steels acc. to EN 10025, EN 10028: P420ML/S420NL to S550QLQuenched and tempered steels such as N-A-XTRA 70, 20MnMoNi5
Suitable fluxes: BF 5.1, BF 6.5 and 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.