SF-3A

AWS A5.20 E71T-9M-J / AWS A5.36 E71T1-M21A4-CS1
EN ISO 17632-A: T 46 4 ZMnNi P M21 1 H5
EN ISO 9606-1: FM1

Flux cored wire for welding carbon steel with impact requirements down to -40 °C.

General description:

SF-3A is a seamless, rutile flux cored wire designed for welding of steel with impact requirements down to -40°C such as grade E often used in shipbuilding.
The flux cored wire uses a Argon/CO_2 mixed shielding gas which gives good weldability and a stable arc, minimum spatter, good visual bead and even transition to parent material.
Due to the seamless design the wire has an extremely low hydrogen content, (typical of ≤2.8 ml/100g) which greatly reduces the possibility of cold cracks.

SF-3A emits little welding fume and has great weldability in all positions.
The wire has a clean copper coated surface which together with exact diameter and roundness, ensures stable and even wire feeding.
Wire stick out should be between 15-25mm dependent upon the welding parameters.
Voltage should be approx. 10% of the Ampere, which is 1-3 Volts lower than that of which conventional folded flux cored wires require.

Welding positions:

Welding current:

DC+

Type of gas / flow:

Ar+18-25% CO_2

18-25 l/min.

Typical chemical composition of all-weld-metal:

C	Si	Mn	P	S	Cu	Ni			
0,05	0,50	1,50	0,010	0,006	0,30	0,35			

Diffusible hydrogen content (ml/100g):

≤5 ml/100g (2,8 ml/100g typical).

Typical mechanical properties of all-weld-metal:

Yield and Tensile Strengths			Charpy Impact Test	
Yield Mpa	Tensile Mpa	Elongation %	Charpy V (J) -20 ºC	Charpy V (J) -40 ºC
547	612	25		90

Guidance - Ampere (DC+):

Wire diameter	1,2 mm		
Ampere / Volt	180–300A / 22-32V		

Packaging information:

1,2mm x 5,0kg spool D200
1,2mm x 12,5kg spool D300
1,2mm x 250kg drum Ø51cm

Approvals:

DNV-GL, LR, ABS, GL, CWB, DB, BV, PRS, TÜV, CE

Reference / date:

SF-3A, English, 07.06.2019.