SF-3M

AWS A5.20 E71T-9C-JH4
EN ISO 17632-A: T 46 4 ZMnNi P C1 2 H5
EN ISO 9606-1: FM1

Flux cored wire for carbon steel in e.g. shipbuilding and offshore structures with impact requirements down to -40 °C.

General description:

SF-3M is a seamless rutile flux cored wire designed for shipbuilding and offshore structure welding with 100% CO_2 shielding gas.
The wire is CTOD tested.
The deposited weld metal has excellent mechanical properties down to -40°C.
The wire has a stable arc, minimum spatter, good penetration with excellent visual results.
SF-3M can also be used for root runs against ceramic backing.
Due to its seamless design, the wire has an extremely low hydrogen content which does not pick up moisture from the environment ensuring a very low risk of hydrogen cracks.
The SF-3M wire has a clean copper coated surface with exact diameter and roundness which ensures stable and even wire feeding.

Welding positions:

Welding current:

DC+

Type of gas / flow:

100% CO_2

20-25 l/min.

Typical chemical composition of all-weld-metal:

C	Si	Mn	P	S	Ni				
0,04	0,25	1,31	0,009	Max. 0,004	Max. 0,43				

Diffusible hydrogen content (ml/100g):

≤5 ml/100g (3,0 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) -40 ºC	
545	595	28	115	

Guidance - Ampere (DC+):

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

Packaging information:

1,2mm x 12,5kg Spool
1,2mm x 5kg Spool

Approvals:

DNV-GL, LR, BV, CWB, ABS, CE

Reference / date:

SF-3M, English, 20.04.2026.