SM-3A

AWS A5.18 E70C-G-H4 / AWS A5.36 E71T15-M21A4-CS1
EN ISO 17632-A: T 42 4 ZMn M M21 1 H5
EN ISO 17632-B: T 49 4 T15 1 M21A UH5
EN ISO 9606-1: FM1

Metal cored wire for non-alloyed steels and Argon/mix shielding gas.

General description:

SM-3A, is a metal cored seamless wire developed for use with Argon/CO_2 mixed (M21) shielding gas. The wire is designed to be used both for automated and manual welding of horizontal butt welds plus fillet welds in the spray arc range.
It can also be used successfully in all positional welding in the short arc range (dip transfer mode).
SM-3A consists mainly of metal flux which ensures high productivity. The seamless wire has a stable welding arc with low spatter and excellent visual bead shape. With only minor surface silica isles this greatly reduces re-ignition problems and ensures the welding of multiple layers without the need for inter run de-slagging.
The metal cored wire has a clean, copper coated surface together with exact diameter and roundness which produces stable and even wire feeding.
This is of great value when long conduit cables are used and when using any automated welding processes.
Mechanical properties have been designed for Charpy impact values ≥47 joule at -40°C.

Welding positions:

Welding current:

DC+

Type of gas / flow:

Ar+8-25% CO_2

18-25 l/min.

Typical chemical composition of all-weld-metal:

C	Si	Mn	P	S	Cu				
0,05	0,56	1,56	0,010	0,013	0,25				

Diffusible hydrogen content (ml/100g):

≤5 ml/100g (2 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	
467	564	28	113	

Guidance - Ampere (DC+):

Wire diameter	1,0 mm	1,2 mm	1,4 mm
Ampere / Volt	60–265A / 13.5-27V	70–330A / 14-32V	80-420A / 23-35V

Packaging information:

1,0mm x 5,0kg spool D200
1,0mm x 12,5kg spool D300
1,2mm x 5,0kg spool D200
1,2mm x 12,5kg spool D300
1,2mm x 250kg drum Ø51cm
1,4mm x 12,5kg spool D300
1,4mm x 250 kg drum Ø51cm

Approvals:

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

Reference / date:

SM-3A, English, 14.01.2026.