

# SM-47A

AWS A5. 28 E80C-Ni1-H4 / AWS A5.36 E80T15-M21A8-Ni1-H4  
EN ISO 17632-A: T 46 6 1Ni M M21 1 H5  
EN ISO 9606-1: FM1



## Metal cored wire for low temperature pipe and steel applications down to -60°C.

### General description:

SM-47A, is a 1% Ni alloyed metal cored seamless wire developed for use with Argon/CO2 mixed M20 and M21 shielding gas.

The wire is designed to be used both in the short-arc range (dip transfer mode) for single side root runs and for automated and manual welding of horizontal butt welds plus fillet welds in the spray-arc range.

SM-47A 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.

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  $\geq 47$  joule at -60°C.

### Welding positions:



### Welding current:

DC+

### Type of gas / flow:

Ar + 5 -25 % CO2  
M20 / M21  
15-25 l/min.

### Typical chemical composition of all-weld-metal:

C	Si	Mn	P	S	Cu	Ni			
0,07	0,62	1,38	0,013	0,009	0,19	0,92			

### Diffusible hydrogen content (ml/100g):

$\leq 5$  ml/100g (2 ml/100g typical).

### Typical mechanical properties of all-weld-metal:

Yield and Tensile Strengths			Charpy Impact Test	Charpy Impact Test
Yield Mpa	Tensile Mpa	Elongation %	Charpy V (J) -40 °C	Charpy V (J) -60 °C
539	627	26	112	75

### Guidance - Ampere (DC+):

Wire diameter			
Ampere / Volt			

### Packaging information:

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 250kg drum Ø51cm

### Approvals:

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

### Reference / date:

SM-47A, English, 28.03.2023.