SM-65A

AWS A5.28 E90C-G H4
EN ISO 18276-A: T 55 6 ZMn2Ni M M21 2 H5
EN ISO 9606-1: FM2

Metal cored wire for welding high tensile steels down to -60°C.

General description:

SM-65A is a 2% Ni-type metal cored seamless wire developed for use with M21 shielding gas.

The wire is designed for welding root passes in the short-arc range, as well as for manual and mechanized welding of fillet welds in the spray-arc range.

SM-65A is designed to provide high productivity. The seamless wire has a stable welding arc with low spatter and excellent visual bead shape.

The wire has a copper-coated surface that results in low wear on wire liners and contact tips. It also ensures reliable wire feeding thanks to the smooth surface and precise roundness, making it suitable for use with long conduit cables.

Mechanical properties have been designed for Charpy impact values ≥ 47 joules at −60 °C.

Recovery (average): 95%

Welding positions:

Welding current:

DC+

Type of gas / flow:

M21 Ar+CO_2

20-25 l/min.

Typical chemical composition of all-weld-metal:

C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V
0.05	0.36	1.66	0,011	0,005	<0,30	2,10	0,02	<0,01	0,01

Diffusible hydrogen content (ml/100g):

≤5 ml/100g (typical 2 ml/100g)

Typical mechanical properties of all-weld-metal:

Yield and Tensile Strengths			Charpy Impact Test	
Yield Mpa	Tensile Mpa	Elongation %	Charpy V (J) -60ºC	
611	679	24	84	

Guidance - Ampere (DC+):

Wire diameter	1,2 mm		
Ampere / Volt	90 – 130A / 200-300A		

Packaging information:

1,2mm x 5,0kg Spool
1,2mm x 12,5kg Spool

Approvals:

CE
Pending: DNV, LR

Reference / date:

SM-65A, English, 20.04.2026.