

SF-80A

AWS A5.29 E111T1-GM-H4

EN ISO 18276-A: T69 4 ZMn2.5NiMo P M21 2 H5

EN ISO 9606-1: FM2



Flux cored wire for welding extra high tensile steels min. YP 690

General description:

SF-80A is a seamless, rutile flux cored wire designed for welding extra high tensile steels with min.690 mpa. The flux cored wire uses a Argon/CO₂ 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 (<4 ml/100g) which is very important when welding extra high tensile steels.

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 15-20mm dependent upon the welding parameters.

Mechanical properties are designed for >47 joule at -40°C.

Welding positions:



Welding current:

DC+

Type of gas / flow:

M21 (Ar+CO₂)

18-25 l/min.

Typical chemical composition of all-weld-metal:

C	Si	Mn	P	S	Cu	Ni			
0,06	0,46	1,82	0,012	0,005	0,22	2,19			

Diffusible hydrogen content (ml/100g):

≤4 ml/100g

Mechanical properties of all-weld-metal:

Yield and Tensile Strengths			Charpy Impact Test	
Yield Mpa	Tensile Mpa	Elongation %	Charpy V (J) -40 °C	
Min. 690	770 - 900	Min. 17	Min. 47	

Guidance - Ampere (DC+):

Wire diameter			
Ampere / Volt			

Packaging information:

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

Approvals:

DNV-GL , ABS, LR, BV, CE

Reference / date:

SF-80A, English, 20.04.2026.