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WELDING ENGINEERS
EFFICIENT WELDING SUPPLY SOLUTIONS

SF-1E

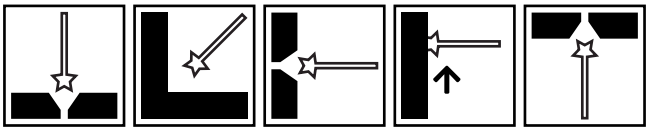
EN ISO 17632-A T 42 2 ZMnNi P C1 1 H5
AWS A5.20 E71T-1C

Seamless flux cored wire for shipbuilding and structures with 100% CO2 shielding gas. Mild steel and 490 MPa high tensile strength steel.

GENERAL DESCRIPTION

SF-1E is a seamless, rutile flux cored wire for welding with 100% CO_2 shielding gas.
Due to the seamless design, the wire has an extremely low diffusible hydrogen content, typical 2.7ml/100g weld metal.
The flux cored wire has excellent weldability in all positions and is extremely efficient in the root pass against ceramic backing.
Good penetration in vertical down greatly reduces the risk of imperfections.
It also gives excellent performance against porosity on primed steel plates when using automated welding, such as a fillet welding tractor.
SF-1E has a stable welding arc with less spatter and perfect bead surface. The flux cored wire has a clean, copper coated surface. Together with exact diameter and roundness it provides a stable and even wire feeding.
This reduces wear and tear of liners and contact tips.
The wire is classified as a grade 3 (-20 °C).

WELDING POSITIONS



WELDING CURRENT

DC+

TYPE OF GAS FLOW

100% CO_2
18-25 l/min

TYPICAL CHEMICAL COMPOSITION OF ALL-WELD-METAL (%)

C	Si	Mn	P	S	Ni				
0.06	0.38	1.20	0.011	0.007	0.30				

DIFFUSIBLE HYDROGEN CONTENT: ≤5 ml/100g (2.7 ml/100g typical)

TYPICAL MECHANICAL PROPERTIES OF WELD METAL

Yield and Tensile Strengths			Charpy Impact Test	
Yield MPa	Tensile MPa	Elongation %	Charpy V (J) -20°C	
530	590	27	100	

GUIDANCE – AMPERE (DC+)

Wire Diameter	1.2 mm	1.4 mm	
Ampere / Volt	180-300A / 22-32V	250-350A / 25-33V	

PACKAGING INFORMATION

1.2mm x 15kg spool D300
1.4mm x 15kg spool D300

SHIPPING APPROVALS

DNV-GL, LR, ABS, BV

REFERENCE

SF-1E, English

Manufactured by Nippon Steel Welding & Engineering Co. Ltd. Made in Japan