

SF-3E

☆AWS A5.36 E81T1-C1A4-CS1

For Low-Ally Steel

FCAW

1

APPLICATIONS

All position welding for YS420 down to -40°C, 100%CO₂ shielding gas

CHARACTERISTICS

SF-3E is a rutile type seamless flux cored arc welding wire to be used with CO₂ shield gas and designed for shipbuilding and offshore structure welding. Weld metal shows excellent toughness in low temperature range down to -40 °C. Diffusible hydrogen content is as low as solid wire s and crack resistance is excellent. Weldability in all positions are excellent.

GUIDELINES FOR USAGE

1. Select optimum welding conditions and control heat input in accordance with welding position, plate thickness and required toughness.
2. Enough care should be taken for gas shielding.
3. For others, see GUIDELINES FOR USAGE 1-4 of SF-1

WELDING POSITION



■ TYPICAL CHEMICAL COMPOSITION OF WELD METAL (%)

C	Si	Mn	P	S	Ni
0.05	0.42	1.30	0.013	0.004	0.44

■ TYPICAL MECHANICAL PROPERTIES OF WELD METAL

Yield strength MPa	Tensile Strength, MPa	Elongation, %	Charpy 2V-notch at -40°C, J
540	590	28	115

■ TYPICAL WELD JOINT TEST

Base metal	Plate thickness mm	Welding position	Heat input kJ/cm	Yield strength MPa	Tensile strength MPa	Charpy 2V-notch at -40°C, J	CTOD mm, at -10°C
YS360	50	Vertical-up	22	590	650	105	0.72

■ SIZES & RECOMMENDED CURRENT RANGE<DC(+)>

Diameter (mm)		1.2	1.4
Current A	F, H	180~300	200~400
	H-Fil	180~300	200~400
	V-up, OH	180~260	200~280

Approval: NK, ABS, LR, DNV