

SF-50A

☆AWS A5.29 E91T1-K2M-H4

For Low Temperature Service Steel

APPLICATIONS

All position welding for YS500 down to -40°C , Ar+20%CO₂ shielding gas

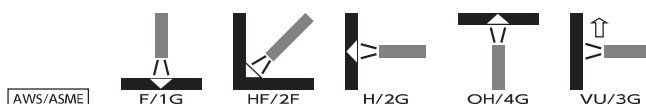
CHARACTERISTICS

SF-50A is a rutile type seamless flux cored arc welding wire to be used with Ar+20%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. A suitable shield gas flow rate is 20~25 ℓ /min.
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
0.06	0.49	1.21	0.015	0.004	1.68

■ TYPICAL MECHANICAL PROPERTIES OF WELD METAL

Yield Strength MPa	Tensile Strength, MPa	Elongation, %	Charpy 2V-notch at -40°C , J
630	680	23	100

■ 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
YS500	63.5	Vertical-up	20	595	655	98	0.27

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

Diameter (mm)		1.2
Current A	F, H	180~300
	H-Fil	180~300
	V-up, OH	180~250