

For Mild Steel and 490MPa High Tensile Strength Steel

APPLICATIONS

Welding of mild steel and 490MPa high tensile strength steel for machinery, structures, steel frames, ships, bridges, towers, rolling stock and parts which especially requires toughness.

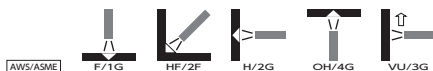
CHARACTERISTICS

SF-3 is a rutile type seamless flux cored arc welding wire to be used with CO₂ shield gas and designed for welding shipbuilding grade E steel. Weld metal shows excellent toughness in low temperature range of -20 ~ -30°C. Crack resistance and weldability in all positions are excellent.

GUIDELINES FOR USAGE

1. If gas shield is insufficient, nitrogen in the air will be absorbed into weld metal causing deterioration of toughness. Distance between nozzle and base metal should be kept within 20mm.
2. Select optimum welding conditions, heat input for example, in accordance with plate thickness, welding position, etc.
3. SB-41, backing material, is recommended for one side welding.
4. For others, see GUIDELINES FOR USAGE 1~4 of SF-1.

WELDING POSITION



■ TYPICAL CHEMICAL COMPOSITION OF WELD METAL (%)

Shield Gas	C	Si	Mn	P	S	Ni
CO ₂	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, J	
			-30°C	-20°C
545	600	27	105	130

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

Diameter (mm)		1.2	1.4
Current A	F	180~300	200~410
	H-Fil	180~300	200~410
	H	180~300	200~350
	V-up	180~260	180~260
	OH	180~260	180~260