

S-7018.1

Classification

AWS A5.1/ASME SFA-5.1 E7018-1
JIS Z 3211 E4918
EN ISO 2560-A E42 4 B 3 2
KS D7006 E5016

Welding Positions



Features

- Suitable for butt and fillet welding of thin and medium-thick plates (up to 20mm)
- Iron powder and low hydrogen type electrode (high efficiency)
- Good impact value at -45°C

Polarity

AC or DC +

Application Areas

- Heavy steel fabrication
- Low temperature strength steel
- Offshore structure

Redrying Conditions

300~350°C (572~662°F) X 0.5~1hr

Approvals

ABS	BV	DNV	LR	RINA
✓	✓	✓	✓	✓

Typical Chemical Composition of All-Weld Metal (wt%)

C	Si	Mn	P	S
0.12	0.33	1.33	0.017	0.006

Typical Mechanical Properties of All-Weld Metal

Yield Strength MPa(ksi)	Tensile Strength MPa(ksi)	Elongation (%)	Temperature °C (°F)	Impact Toughness J (ft · lbs)
455(66)	561(81)	31	-45(-50)	74(55)

SAW

GMW

GTW

FCW

Metal-cored Wire

SAW Wire

SAW Flux

Diameter / Welding Parameters / Packaging

Diameter mm(in)	Length mm(in)	F & HF	V-up, OH	Packaging
2.6(3/32)	350(14)	60-90	50-80	Standard/Vacuum - Packet 5kg (11lbs), Carton 20kg (44lbs)
3.2(1/8)	350(14)	90-140	80-120	
4.0(5/32)	400(16)	130-190	120-170	
5.0(3/16)	400(16)	180-240	150-200	
6.0(15/64)	450(18)	250-300	-	

SMAW

GMAW

GTAW

FCAW

Metal-cored Wire

SAW Wire

SAW Flux