

7018-1

☆AWS A5.1 E7018-1

For 490MPa high tensile strength steel

SMAW

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APPLICATIONS

Welding of 490MPa high tensile strength steel of down to -45°C for steel frames, bridges and pressure vessels.

CHARACTERISTICS

7018-1 is a low hydrogen iron powder type electrode containing a large amount of iron powder in coating flux. Deposited metal gives excellent mechanical properties, crack resistance and X-ray quality. Weldability is good and high welding efficiency is obtained.

GUIDELINES FOR USAGE

1. Electrodes should be redried at 300~350°C for 60 minutes before using.
2. Backstep method should be applied to prevent blowholes and pits at arc starting and arclength should be kept as short as possible during welding.
3. All water, rust and oil in groove should be completely removed to prevent cracks and blowholes.

WELDING POSITION



■ TYPICAL CHEMICAL COMPOSITION OF WELD METAL (%)

C	Si	Mn	P	S
0.06	0.49	1.38	0.011	0.002

■ TYPICAL MECHANICAL PROPERTIES OF WELD METAL

Yield Strength, MPa	Tensile Strength, MPa	Elongation, %	Charpy 2V-notch J	
			at -45°C	at -30°C
474	562	29	107	141

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

Diameter (mm)		2.6	3.2	4.0	5.0
Length (mm)		350	400	450	450
Current A	F, H-Fil, H	70~100	100~140	150~200	190~240
	V-up, OH	60~90	80~120	120~160	140~180

Identification color: End-light yellow, secondary-light yellow

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