

# Stick Electrode for Heat Resistant Steel

## KL-718A1

### Classification

AWS	A 5.5	E7018-A1
JIS	Z3223	E4918-1M3
EN	3580-A	E Mo B
GB	T 5118	E5018-A1

Type of coating: Iron powder low hydrogen type

### Applications and Features

- (1) KL-718A1 is suitable for welding 490N/mm<sup>2</sup> grade steel with 0.5% Mo.
- (2) It provides high deposition rate and good weldability.
- (3) It is ideal for welding high temperature/pressure steel pipes, heat exchanger steel pipes, rolled steel and forged steel.

### Welding Position

All Positions

### Welding Instruction

- (1) Clean up the contaminations on the steel.
- (2) Dry the electrodes at 350~400°C for 60 minutes before welding.
- (3) Keep arc as short as possible. Take the back step method to prevent porosity at arc start and re-start. (Please refer to Appendix A).
- (4) Preheat and interpass temperature: 100~200°C, PWHT: 600~635°C.

### Typical Chemical Composition of Weld Metal (wt %)

C	Si	Mn	P	S	Mo
0.080	0.54	0.78	0.012	0.011	0.56

### Typical Mechanical Properties of Weld Metal (PWHT:620°Cx1Hr)

Tensile Strength N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Yield Strength N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Elongation %	Charpy V-Notch	
			°C	J (kgf -m)
570(58.1)	490(50.0)	31	0	—
			-29	—

### Size and Suggested Operating Range (AC or DC+)

Diameter (mm) x Length(mm)		3.2x350	4.0x400	5.0x400
Amp	F	90~140	140~190	180~240
	V-up/OH	80~120	120~160	—