

Stick Electrode for Heat Resistant Steel

KL-818B2

Classification

AWS	A 5.5	E8018-B2
JIS	Z3223	E5518-1CM
EN	3580-A	E CrMo1 B
GB	T 5118	E5518-B2

Type of coating: Iron powder low hydrogen type

Applications and Features

- (1) KL-818B2 is suitable for welding Cr-Mo alloy steel.
- (2) It provides high deposition rate and good weldability.
- (3) Weld metal contains 1.25%Cr-0.5%Mo.
- (4) It is ideal for welding in high pressure steel pipes, heat exchanger steel pipes, rolled, cast and forged steel, such as ASTM A387Gr.11 and JIS SCMV3.

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: 160~190°C, PWHT: 675~705°C.

Typical Chemical Composition of Weld Metal (wt %)

C	Si	Mn	P	S	Cr	Mo
0.080	0.68	0.75	0.013	0.008	1.28	0.53

Typical Mechanical Properties of Weld Metal (PWHT:690°Cx1Hr)

Tensile Strength N/mm ² (kgf/mm ²)	Yield Strength N/mm ² (kgf/mm ²)	Elongation %	Charpy V-Notch	
			°C	J (kgf -m)
640(65.3)	560(57.1)	26	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	—