

# Stick Electrode for Heat Resistant Steel

## KS-502

### Classification

AWS	A 5.5	E8016-B6
JIS	Z3223	E5518-5CM
EN	3580-A	E CrMo5 B
GB	T 5118	E5518-G

Type of coating: Low hydrogen type

### Applications and Features

- (1) It is suitable for welding Cr-Mo heat resistant steel.
- (2) Weld metal contains 5%Cr-0.5%Mo.
- (3) It is ideal for welding steels used in petro-chemical plants, such as ASTM A387Gr.5 and JIS SCM6.

### 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: 177~232°C, PWHT: 725~755°C.

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

C	Si	Mn	P	S	Cr	Mo
0.052	0.29	0.47	0.015	0.014	5.57	0.57

### Typical Mechanical Properties of Weld Metal (PWHT:745°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)
580(59.0)	410(42.0)	25	0	—
			-29	—

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

Diameter (mm) x Length(mm)		3.2x350	4.0x400	5.0x400
Amp	F	80~120	100~170	160~230
	V-up/OH	70~110	100~150	—