

Stick Electrode for Heat Resistant Steel

KS-505

Classification

AWS	A 5.5	E8016-B8
JIS	Z3223	E5518-9C1M
EN	3580-A	E CrMo9 B
GB	T 5118	E5518-G

Type of coating: Low hydrogen type

Applications and Features

- (1) It is suitable for welding Cr-Mo steel.
- (2) Weld metal contains 9%Cr-1%Mo.
- (3) It is ideal for welding high pressure/temperature equipment steel, such as ASTM A219-T9 and A385-P9.

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: 205~260°C, PWHT: 725~755°C.

Typical Chemical Composition of Weld Metal (wt %)

C	Si	Mn	P	S	Cr	Mo
0.058	0.24	0.43	0.012	0.009	8.55	0.90

Typical Mechanical Properties of Weld Metal (PWHT:745°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)
630(64.2)	510(52.0)	24	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	—