

Stick Electrode for Low Temperature Resistant Steel

KN-818C2

Classification

AWS	A 5.5	E8018-C2
JIS	Z3211	E5518-N7
EN	2560-A	E 46 6 3Ni B
GB	T 5118	E5518-C2

Type of coating: Iron powder low hydrogen type

Applications and Features

- (1) It is suitable for welding 540N/mm² grade steel for low temperature resistance.
- (2) It provides high deposition rate, good mechanical properties and X-ray quality welds.
- (3) Weld metal contains 3.5%Ni and good impact properties at -75°C.
- (4) It is ideal for welding in LNG storage tanks or 3.5% Ni steel for low temperature resistance.

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) High heat input will lower the impact value. Please carefully select the welding current.
- (5) The preheat temperature for thick plate is 90~110°C.

Typical Chemical Composition of Weld Metal (wt %)

C	Si	Mn	P	S	Ni
0.070	0.57	0.90	0.010	0.008	3.41

Typical Mechanical Properties of Weld Metal (PWHT:600°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)
570(58.1)	480(48.9)	32	0	—
			-75	108(11.0)

Size and Suggested Operating Range (AC or DC+)

Diameter (mm) x Length(mm)		2.6x300	3.2x350	4.0x400	5.0x400
Amp	H	70~100	100~140	140~180	180~230
	V-up/OH	60~90	90~130	120~160	—