Stick Electrode for Low Temperature Resistant Steel

KN-818C1

Type of coating: Iron powder low hydrogen type

Classification

AWS	A 5.5	E8018-C1
JIS	Z3211	E5518-N5
EN	2560-A	E 46 6 2Ni B
GB	T 5118	E5518-C1

Applications and Features

(1) It is suitable for welding 540N/mm^2 grade steel for low temperature resistance.

(2) It provides high deposition rate, smooth welding beads and X-ray quality welds.

(3) Weld metal contains2.5%Ni and good impact properties at -60˚C.

(4) It is ideal for welding in LNG storage tanks or 2.5% 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
0.080	0.64	0.98	0.014	0.008	2.55

Typical Mechanical Properties of Weld Metal (PWHT:620˚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)
578(59.0)	480(49.0)	32	0	—
			-60	84(8.6)

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	—