Stick Electrode for Low Temperature Resistant Steel

KN-816C2

Type of coating: Low hydrogen type

Classification

AWS	A 5.5	E8016-C2
JIS	Z3211	E5516-N7
EN	2560-A	E 46 6 3Ni B
GB	T 5118	E5516-C2

Applications and Features

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

(2) It provides superior weldability, stable arc and good slag removal.

(3) Weld metal contains 3%Ni-0.25%Mo and good impact properties at -60°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 50~100°C.

Typical Chemical Composition of Weld Metal (wt %)

C	Si	Mn	P	S	Ni
0.065	0.32	0.88	0.010	0.008	3.30

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)
565(57.6)	465(47.5)	32	0	—
			-75	71

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	—