Stick Electrode for Nickel and Nickel-Based Alloy

KNi-70C

Type of coating: Low hydrogen

Classification

AWS	A5.11	ENiCrFe-3
JIS	Z3224	E Ni 6182
EN	14172	E Ni 6182
GB	T 13814	E Ni 6182

Applications and Features

(1) KNi-70C is an all position electrode for welding in DC with good weldability.

(2) It provides good heat and corrosion resistance to high temperature (<480°C).

(3) It has good toughness to low temperature.

(4) It is used for welding pressure and chemical tanks.

Welding Instruction

(1) Clean the surface of the base metal before welding.

(2) It is difficult for welding in V & O-H positions, so F welding is recommended.

(3) Baking temperature should be between 350~400°C during 30~60 minutes before welding.
No PWHT is required for base metal.

(4) To avoid weave arc, make a short arc in low current.

(5) To avoid porosity, use the back step method for welding. (Please refer to Appendix A)

Typical Chemical Composition of Weld Metal (wt %)

C	Si	Mn	P	S	Ni	Cr	Nb	Fe	Co	Ti
0.060	0.54	6.20	0.006	0.007	69.20	13.50	1.70	9.23	0.11	0.07

Typical Mechanical Properties of Weld Metal

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)	400(40.8)	41	-196	98(10.0)

Size and Suggested Operating Range (DC+)

Diameter (mm) x Length(mm)		2.6x300	3.2x350	4.0x350	4.8x350
Amp	H	60~85	70~115	95~145	140~180
	V/O-H	55~85	65~110	85~135	—