

# Stick Electrode for Nickel and Nickel-Based Alloy

## KNi-96

### Classification

AWS	A5.11	ENi-1
JIS	Z3224	E Ni 2061
EN	14172	E Ni 2061
GB	T 13814	ENi2061

Type of coating: Low hydrogen

### Applications and Features

- (1) KNi-96 is designed for AC welding with good weldability.
- (2) It provides good corrosion resistance.
- (3) It is ideal for welding Nickel 200, 201, nickel, nickel-based and nickel forged/cast working piece.
- (4) It is ideal for the machinery of pressure vessels, fabrications, chemical and food stuff industry.

### 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	Fe	Cu	Ti
0.060	0.90	0.60	0.007	0.009	96.53	0.40	0.10	2.00

### Typical Mechanical Properties of Weld Metal

Tensile Strength N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Yield Strength N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Elongation %	Charpy V-Notch	
			°C	J (Kgf-m)
520(53.0)	305(31.1)	42	20	120(12.2)

### Size and Suggested Operating Range (DC+)

Diameter (mm) x Length(mm)	2.6x300	3.2x350	4.0x350	4.8x350	
Amp	H	60~85	80~120	100~150	140~180
	V/O-H	55~85	65~110	85~135	—