

Stick Electrode for Low Temperature Resistant Steel

KN-816G

Classification

AWS	A 5.5	E8016-G
JIS	Z3211	E5516-3N3
EN	2560-A	E 46 4 Z B
GB	T 5118	E5516-G

Type of coating: Low hydrogen type

Applications and Features

- (1) It is suitable for welding 540N/mm² grade steel for low temperature resistance.
- (2) It provides good weldability, stable arc and easy slag removal.
- (3) Weld metal contains 1.5%Ni and has good impact properties at -45°C.
- (4) It is ideal for welding low temperature steel used in LPG storage tanks, such as ASTM A537C1, JIS G3126 and SLA325A.

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
0.080	0.87	1.10	0.011	0.010	1.54

Typical Mechanical Properties of Weld Metal (PWHT:745°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)	480(49.0)	32	0	—
			-45	89(9.1)

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	—