

# Stick Electrode for Hardfacing

## KH-70-B

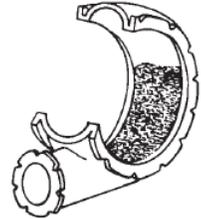
### Classification

AWS	A5.13	E Fe7
JIS	Z3251	DF3C-700-B
EN	14700	E Fe4
GB	T 984	—

Type of coating: Low hydrogen type

### Applications and Features

- (1) Weld metal is martensite structure with carbide and boride precipitates.
- (2) It is unable to be machined and cut.
- (3) High hardness is attainable with only one layer of weld metal. The impact resistance is inferior.
- (4) It is used in severe metal-to-earth wear, such as repairing construction machines, scraper buckets and dredge pumps.



Dredge pump outlet

### Welding Instruction

- (1) Dry the electrodes at 300-350°C for 30-60 minutes before use.
- (2) Preheat temperature should be  $\geq 200^{\circ}\text{C}$  and PWHT should be  $600^{\circ}\text{C}$ .
- (3) Take the back-step method to prevent porosity at the arc starting.
- (4) Use high tensile strength low hydrogen electrode for the buffer layer in multi-layer build-up and base metal with high hardenability.

### Typical Chemical Composition of Weld Metal (wt. %)

C	Si	Mn	Cr	B	Mo
0.900	1.28	0.80	7.00	0.50	1.20

### Typical Hardness of Weld Metal

Condition	Hardness	Vicker's hardness (HV)	Rockwell's hardness (HRC)	Shore's hardness (HS)
Interpass temp. $\leq 100^{\circ}\text{C}$		720	61	83
Continuous build-up		680	59	80

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

Diameter x Length(mm)	3.2x350	4.0x350	5.0x350	6.0x400
Amp	80~120	120~170	160~210	200~280