

# Stick Electrode for Hardfacing

## KH-70HS

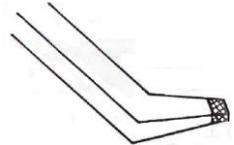
### Classification

AWS	A5.13	E Fe6
JIS	Z3251	DF5A-700-B
EN	14700	E Fe4
GB	T 984	—

Type of coating: Low hydrogen type

### Applications and Features

- (1) Weld metal is a hi-speed tool steel structure with Mo, which can be used at service temperature up to 550°C.
- (2) It provides excellent arc re-start, slag removal and bead appearance.
- (3) It is suitable for repairing lathe cutters and hot punch die.
- (4) It can be machined only by grinder, due to its high hardness. Stable hardness and toughness can be obtained after temper treatment.



Lathe cutter

### Welding Instruction

- (1) Dry the electrodes at 300-350°C for 30-60 minutes before use.
- (2) Preheat temperature should be  $\geq 300^{\circ}\text{C}$  and slow cooling after welding is required.
- (3) Recommended heat treatment:  
 Quench.....1200~1250°C oil quenching.  
 Temper.....540~570°C air cooling.

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

C	Si	Mn	Cr	Mo	V	W
1.050	1.05	0.21	4.65	9.15	1.82	4.21

### Typical Hardness of Weld Metal

Condition	Hardness	Vicker's hardness (HV)	Rockwell's hardness (HRC)	Shore's hardness (HS)
As-welded	Interpass temp. $\leq 150^{\circ}\text{C}$	743	62	84
	Continuous build-up	682	59	80
Heat treatment	1200~1250°C oil quench	783	63	87
	540~570°C air cooling			

### 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