

# **S-700B.B**

COVERED ARC WELDING ELECTRODE FOR HARDFACING



## ❖ Specification

*JIS Z3251*

DF3C-700-B

## ❖ Applications

For soil abrasion.  
Hardfacing of cutting knives and casings

## ❖ Characteristics on Usage

S-700B.B is an electrode depositing weld metal of martensite which is harder than that of S-600B.B. This electrode, all-weld metal of very hard martensite structure containing small quantity of austenite structure. Maching is impossible "as welded". It is mostly suitable for soil abrasion.

## ❖ Note on Usage

Preheat at 150°C(302°F) and more than that in general.  
Postheat at about 600°C(1112°F), it possible.

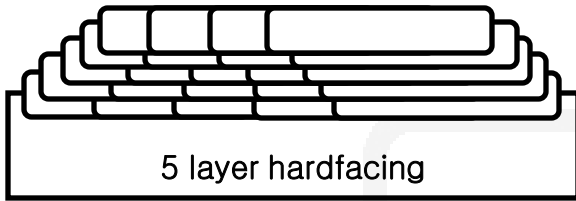
In case of multi-layer build-up welding or welding base metal of hardening property, underlay with low hydrogen type carbon steel electrodes. Dry the electrodes at 350~400°C(662~752°F) for 60 minutes before use.



## Mechanical Properties & Chemical Composition of All Weld Metal

### ❖ Welding Conditions

Method by JIS Spec.



5 layer hardfacing

- Diameter(mm)** : 4.0 x 400
- Amp./ Volt.** : 170 / 22~24
- Pre-Heat(°C)** : ≥150
- Interpass Temp.(°C)** : 150±20
- Polarity** : AC

### ❖ Chemical Analysis of All weld metal(wt%)

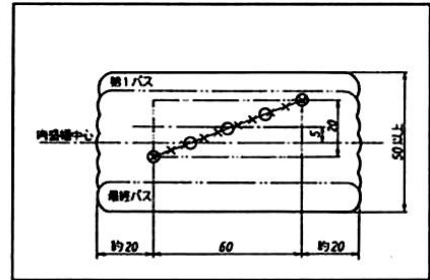
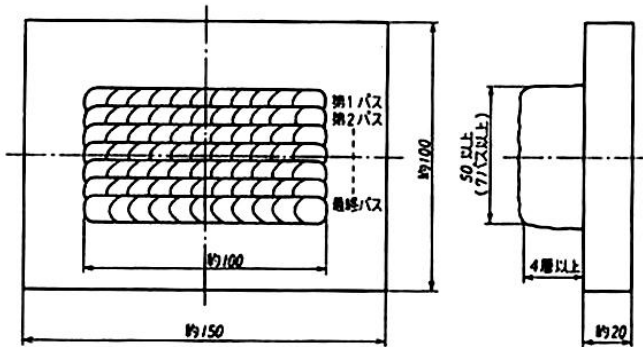
Consumable	Chemical Composition (%)								
	C	Si	Mn	P	S	Cr	Mo	W	Others
<b>S-700B.B</b>	0.665	1.18	1.48	0.013	0.005	4.29	1.68	0.01	-
<b>JIS Z3251 DF3C-700-B</b>	0.50 ~1.50	≤3.0	≤3.0	≤0.03	≤0.03	3.0 ~9.0	≤2.5	≤4.0	≤1.0

This information is provided solely for the purpose of confirming product conformance with applicable standards. The serviceability of a product or structure utilizing this type of information is and must be the sole responsibility of the builder/user. Many variables beyond the control of HYUNDAI WELDING CO., LTD. affect the results obtained in applying this type of information. These variables include, but are not limited to, welding procedure, shielding gas, plate chemistry and temperature, weldment design, fabrication methods and service requirements.



## Mechanical Properties & Chemical Composition of All Weld Metal

### ❖ Hardness test of All weld metal(HRc)



×印：ビッカース硬さ又はロックウェル硬さ測定位置（等間隔に10点測定）  
○印：ブリネル硬さ測定位置（等間隔に5点測定）

### [Method of Hardness Test for Deposited Metal(JIS Z3114 -1990 )]

Consumable	Hardness(HRc)										Avg.
S-700B.B (4.0mm x 400)	60	58	59	58	59	59	59	60	60	59	59.1
JIS Z3251 DF3C-700-B	HRc ≥ 58										



## Size Available and recommended Current & Approval

### ❖ Size Available and recommended Current

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Diameter (mm)	2.6	3.2	4.0	5.0	6.0
Length (mm)	350	350	400	400	450
Flat position(Amp.)	55~90	90~140	140~190	190~240	220~300

### ❖ Approval

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Packing	
Packet	5kg (11 lbs)
Carton	5kg (11 lbs)X4 : 20kg(44 lbs)