

# **Supershield CrCNb**

CHROMIUM CARBIDE + NIOBIUM CARBIDE TYPE OPEN ARC WIRE



## *Supershield CrCNb*

### ❖ **Specification**

DIN8555 MF 10-60G

### ❖ **Description & Applications**

Supershield CrCNb is an open arc wire on a Cr-Carbide+Nb-Carbide basis for extreme hard deposits on parts subject to severe abrasion.

(Wear Plate, Screen in the coal industry, Bucket teeth etc.)

### ❖ **Welding Process**

Open Arc Type

### ❖ **Current Type**

DC+



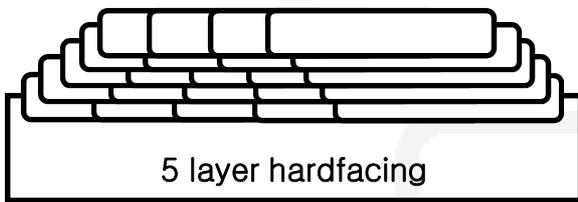
### ❖ **Packing**

<b>Supershield CrCNb</b>	<b>Dia.</b>	1.6mm(1/16in)	2.8mm(7/64in)
	<b>Spool</b>	15kg(33lbs)	-
	<b>Coil</b>	-	25kg(55lbs)
	<b>Pailpack</b>	-	150, 250



## Mechanical Properties & Chemical Composition of All Weld Metal

### ❖ Welding Conditions



5 layer hardfacing

<b>Diameter</b>	: 1.6mm(1/16in)
<b>Welding Type</b>	: Open Arc
<b>Amp./ Volt.</b>	: 300/32
<b>Stick-Out</b>	: 25~30mm(0.98~1.18in)
<b>Pre-Heat</b>	: 150~250℃ (302~482°F)
<b>Interpass Temp.</b>	: 200~300℃ (392~572°F)
<b>Total layers</b>	: ≥4 layer

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

Consumable	C	Si	Mn	Cr	Nb
Supershield CrCNb	5.10	0.89	0.19	22.0	6.60

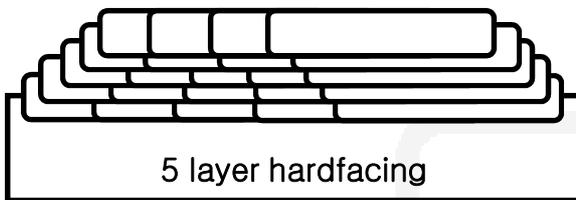
### ❖ Hardness test of All weld metal(HRc)

Consumable	Hardness(HRc)					Avg.
Supershield CrCNb	60	62	62	63	65	62.5



## Mechanical Properties & Chemical Composition of All Weld Metal

### ❖ Welding Conditions



<b>Diameter</b>	: 2.8mm(7/64in)
<b>Welding Type</b>	: Open Arc
<b>Amp./ Volt.</b>	: 380/30
<b>Stick-Out</b>	: 25~30mm(0.98~1.18in)
<b>Pre-Heat</b>	: 150~250℃ (302~482°F)
<b>Interpass Temp.</b>	: 200~300℃ (392~572°F)
<b>Total layers</b>	: ≥4 layer

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

Consumable	C	Si	Mn	Cr	Nb
Supershield CrCNb	5.2	0.71	0.18	23.0	6.8

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

Consumable	Hardness(HRc)					Avg.
Supershield CrCNb	62	63	64	64	65	63.6



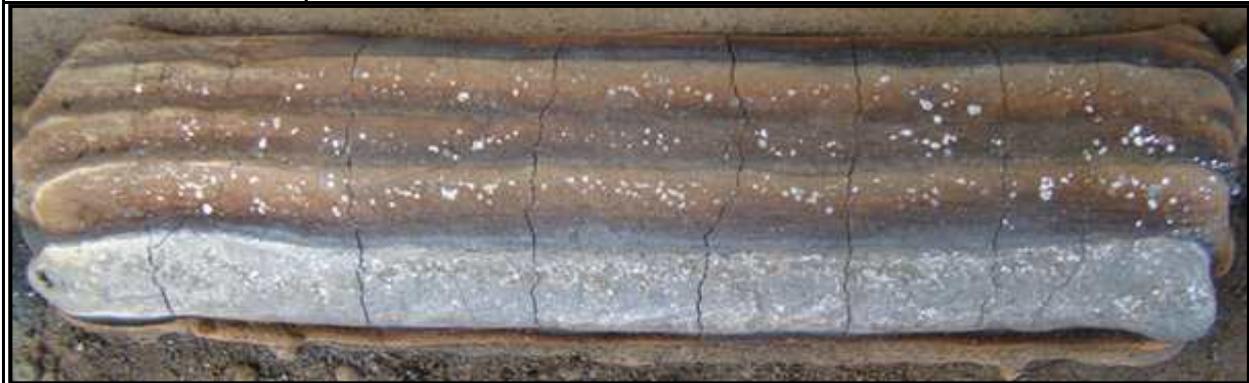
## Test Results

### ❖ BEAD APPEARANCE

<b>Consumable</b>	Supershield CrCNb (1.6mm, 1/16in)
<b>Amp.(A)</b>	280~300
<b>Volt.(V)</b>	30~32
<b>Carrige Speed</b>	40~60cm/min(15.7~23.6in/min)
<b>Welding Position</b>	Flat(1G)



<b>Consumable</b>	Supershield CrCNb (2.8mm, 7/64in)
<b>Amp.(A)</b>	370~390
<b>Volt.(V)</b>	29~30
<b>Carrige Speed</b>	40~60cm/min(15.7~23.6in/min)
<b>Welding Position</b>	Flat(1G)



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.