

# FCW650HB ®

## Cored welding wire

The **BMI-W-FCW 650 HB®** cored wire is a **high-fill copper-coated tubular wire**, designed for **semi-automatic hardfacing under gas shielding**.

The **martensitic deposited metal** contains **finely dispersed hard carbides**, ensuring an **optimal balance between abrasion resistance, friction resistance, and impact resistance**.

## APPLICATIONS

The **BMI-W-FCW 650 HB®** cored wire is recommended for hardfacing applications requiring **good resistance to metal-on-metal friction wear**, as well as **low-stress abrasion**, with or without significant impact.

**Main applications** : Excavator bucket teeth and blades, mechanical shovel blades, crusher hammers and jaws, drilling bits, cutting tools, shredding tools, and conveyor chains.

The **deposition rate is on average 20% higher** than that of equivalent solid wires. In this alloy category, **there is no moisture absorption**, and the wire feeding quality is **exceptional**.

This **cored wire is ideal for flat, overlaid, and vertical-up hardfacing applications**. Its **abrasion resistance remains effective up to 500°C**.

For hardfacing on **highly alloyed steels**, such as **tool steels**, it is recommended to apply a **buffer layer** (contact us for details), ensuring **preheating of the workpiece between 200 and 400°C** (depending on hardening risk and thickness), followed by **slow cooling**.

## TYPICAL CHEMICAL COMPOSITION WELD METAL

C	Mn	Si	Cr	Mo
0.5	1.3	1.3	5.6	1.3

## TYPICAL MECHANICAL PROPERTIES

Hardness 1st Layer	Hardness 2 <sup>nd</sup> /3 <sup>rd</sup> Layer
~ 57 HRC	~ 62 HRC

## OPERATING CONDITIONS

Cored Wire Ø	1.2	1.6	Gas Shielding M12 - ML13 - M21
Voltage (V)	17-30	17-32	Argon + CO <sub>2</sub> (2 to 25 %)
Current (A)	110-300	130-350	

## PACKAGING

15 Kg Spools

### Groupe BMI

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