

BONDCRETE MC

(NON-SHRINK HIGH PERFORMANCE MICRO CONCRETE)

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BONDCRETE MC is a repair concrete used in place of hand applied mortars to repair and replace sections of concrete. Designed for pour and pump application, the material is poured into shuttering to reform concrete profiles. It is shrinkage Compensated and provides high early and ultimate strengths. BONDCRETE MC is design for large volume repairs in excess of 50 mm deep, it can be applied to sections up to 180 mm thickness and greater thickness may be achievable.

USES

BONDCRETE MC is basically used for:

- Larger Volume concrete repairs where hand placing is impractical.
- Repairs of columns, ring beams, walls, soffits
- Suitable for car parks, balconies and bridge repair
- Replacement of beams and support elements

ADVANTAGES

- Can be poured or pumped.
- Free flowing into shuttering and formwork to foam profiles.
- Fluidity ensures coverage and compaction around reinforcing steel
- Shrinkage compensated to ensure long-term stability
- High early strength development
- Self compacting formulation

SURFACE PREPARATION

Prepare concrete to establish sound substrate and minimum repair depth. Expose reinforcement steel as necessary, Clean steel and concrete. Erect shuttering and test for water tightness. A suitable formwork must be installed and constructed respecting good quality concreting practice to avoid any loss of Boncrete MC during the pouring operation.

Chemically Engineered Products

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Priming : Steel must be primed immediately after cleaning with a suitable zinc rich primer. The repair concrete substrate should be flooded with clean water and excess removed prior to pouring BONDCRETE MC.

The concrete surface must be dampened prior to application of the bond coat. Exposed Reinforcement Steel-exposed rebar may be treated.

MIXING

Mix components using a forced action mixer and placing operation shall be carried continuously in keeping accurate control of water introduced in each mix. Use 3.2 to 3.5 liters of water per 25kg bag. All materials should be in the proper temperature range of 16°C – 32° C. Do not mix more material than can be placed within 20 minutes.

Add the appropriate amount of water for the batch size and then add the dry product.

Mix 3-5 minutes. The mixed product should be quickly transported to the repair area and pumped or placed immediately.

APPLICATION

Pour or pump mixed BONDCRETE MC into shuttering in a continuous operation taking care not to introduce entrapped air voids.

CURING

When the BONDCRETE MC has set, cure all the exposed surface with water or T-BOND A compounds or protect the exposed surface with wet burlap and hessian cloth.

COVERAGE

25kg bag of BONDCRETE MC mixed mortar will yield approximately 12.5 liters.

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TYPICAL PROPERTIES

The following result were obtained at a water powder ratio of 0.130 under laboratory conditions.

Compressive Strength	ASTM C 109
7 Days	>45 N/mm ²
28 Days	>50 N/mm ²
Flexural Strength @ 25°C	ASTM C 580
7 Days	>6 N/mm ²
28 Days	>7 N/mm ²
Tensile Strength	ASTM C 307
7 Days	>3
28 Days	>4.50
Yield	90 bags/ m ³

NB: 100 mm cubes

Mixed Density: 2,240 kg/m³ giving a yield of 12.5 liters per 25 kg bag at flowable consistency.

PACKING AND STORAGE

Packing

BONDCRETE MC is available in 25kg bags.

STORAGE

BONDCRETE MC should be stored in original undamaged packs in cool and dry storage area. The Shelf life of BONDCRETE MC is one year. The material must not be allowed to freeze or placed in open sunlight.

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HEALTH AND SAFETY

BONDCRETE MC is non-flammable and non-toxic in nature. Avoid contact with eyes and skin as it may cause irritation due to its alkaline nature. Splashes of BONDCRETE MC should be washed off immediately with clean water. Wear necessary gloves and dust mask.

PRECAUTIONS

BONDCRETE MC micro concrete contains cement. Protective clothing such as goggles, overalls and gloves is recommended to prevent any effect from prolonged skin contact, inhalation or ingestion. Refer to Health and Safety Data Sheet.

LIMITATIONS

Surface and application temperature should be more than 7°C. Apply only to thoroughly clean and sound substrate.

After placing, protect from direct heat and sun. Use mechanical mixer to avoid lumps. Avoid application in rain or contaminated surface. Do not add Cement, sand or accelerator.

PROTECTION: All works must be protected from rain and frost until fully hardened.

CLEANING: Clean application tools and mixing equipment with water immediately following use

Whilst the information and /or specification given are to the best of our knowledge true and accurate, no warranty is given or implied in connection with any recommendations or suggestions made by us, our representatives, agents or distributors as the conditions of use and any labour involved are beyond our control.

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