

Technical Data Sheet - TDS



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RocBuild MC

Shrinkage compensated, polymer modified, micro concrete

PRODUCT DESCRIPTION

RocBuild MC is a single component, polymer modified, pre-bagged repair concrete. When mixed and installed in accordance with the printed instructions, **RocBuild MC** is a high strength, free flowing precision concrete. During placement the concrete is free from segregation and bleeding. **RocBuild MC** contains a dual expansion system, which compensates for shrinkage in both the plastic and hardened phases of curing.

FIELDS OF APPLICATION

As a repair concrete for filling large volume voids where the depth is generally in excess of 40 mm. Where compaction and vibration of concrete is made difficult by the location and congestion of reinforcement or shuttering. As part of the RocBuild repair range where a reinstatement of an alkaline environment around reinforcement is required. A repair concrete with precision properties and high early compressive strengths.

ADVANTAGES

- ▶ It can be applied for large volume repairs in excess of 20 mm. The product can be applied in sections generally up to 300 mm
- ▶ Large volume or area repairs where the use of hand or trowel applied mortars is impractical

- ▶ The hardened product exhibits excellent thermal compatibility with concrete and has very low water absorption properties.
- ▶ Dual expansion system which compensates for shrinkage in the plastic and hardened phases of curing.
- ▶ Excellent adhesion to damp concrete substrates. Free flowing- suitable for placement without vibration.
- ▶ Eliminates honeycombing in areas of congested reinforcement.

TYPICAL PROPERTIES

Form	Grey Powder
Density@25°C	2400kg/ltr±100
Working time@25°C	40±10min
Flexural Strength (BS 6319-3)	9.0N/mm ² @ 28 days
Tensile Strength (BS 6319-7)	4.0N/mm ² @ 28 days

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Compressive Strength (ASTM C109)	40N/mm ² @ 28 days
Bond Strength @25°C	1.0N/mm ² @ 28 days
Water Absorption ISAT BS 1881-208)	< 0.010ml/m ² /sec at 2hrs
Drying shrinkage (ASTM C 596)	< 350 micro strain @ 28 days

DIRECTIONS FOR APPLICATION

Surface Preparation: The concrete to be treated must be free from dust, loosely adhered material, plaster and cement droppings, grease oil and paints etc. On old concrete ensure the substrate is structurally sound prior to application. Roughen the surface by sandblasting or stone rubbing to remove surface laitance.

Reinforcement must be cleaned and all corrosion removed before application of **RocBuild MC**. If there is a significant loss of section due to corrosion the rebar must be replaced. Steel should be primed with **RocBuild ZP** immediately after cleaning. The perimeter edges of the repair should be saw cut to 20 mm to ensure there are no feather edges. Formwork should be grout tight and water-tested prior to application. Ensure minimum cover to all reinforcement.

Priming: Priming is not required for most applications. The substrate must be thoroughly soaked to an ideal state of saturated surface dry (SSD). This will prevent absorption to the parent concrete. Where a barrier to aggressive soluble salts is required, the use of **RocBond EP** epoxy bonding agent is recommended. When cured, **RocBond EP** will prevent migration of chlorides or sulphates to the repaired areas. When **RocBond EP** is used, soaking the repair is not required. The formwork should be erected and repair concrete placed within the open time of RocBond EP.

Mixing: Only mix as much **RocBuild MC** as is required for immediate use. It is essential that forced action mixers be used as through mixing is required to achieve the specified results. Water should be added at 3.5 litres per 25 kg bag. Adjust by +/- 10% to suit ambient temperatures. Always add powder to water. Mix thoroughly and visually inspect to ensure a homogenous product is achieved.

Placing: Once mixed, **RocBuild MC** should be placed within 25 minutes. This will ensure maximum fluidity and self-compaction. Pour steadily and continuously into the formwork to avoid entrapment of air.

Curing: RocBuild MC must be fully cured to ensure the specified properties are attained. Use water and hessian or Roc-Cure Clear; a permanent membrane which also acts as a primer for subsequent RocCote coatings.

PACKAGING & STORAGE

RocBuild MC is available in 25 kg bags and should be stored as cement under dry frost-free conditions in shaded warehouses. Shelf life will be 12 months.

HEALTH & SAFETY

As with all CIL chemical products, care should be taken to avoid contact with skin, eyes, mouth and foodstuffs. Treat splashes to eyes and skin immediately, by thorough washing with clean water. If ingested seek medical attention.

OTHER BONDING AGENTS AND TILING PRODUCTS AVAILABLE FROM CIL.

- ▶ **RocBuild EL**--High build epoxy lining for chemical & abrasion resistance Applications
- ▶ **RocBuild MC**--Shrinkage compensated, polymer modified, micro concrete
- ▶ **RocBuild TG** --Single component , hot climates ,concrete and masonry Reinstatement Repair mortar
- ▶ **RocCoat NT** --Non-toxic, epoxy resin coating for potable water applications
- ▶ **RocBond AR**--Single component acrylic bonding agent and Primer
- ▶ **RocBuild HL**--Lightweight High Build Cementations' repair mortar
- ▶ **RocBuild NF**--Multi purpose, non slump adhesive & repair putty
- ▶ **RocBuild ZP** --Single component, epoxy zinc primer for steel
- ▶ **TufCote PE** --Solvent free pitch extended epoxy resin protective coating
- ▶ **RocBuild FC**--Single component, polymer Modified fairing coat
- ▶ **RocBuildHS**--Shrinkage compensated,High Strength, Fibre Reinforced, Structural Repair mortar

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Product representative or visit our website for current technical data and instructions.

Disclaimer

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer? Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and CIL makes no claim that these tests or any other tests, accurately represent all environments.

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