



Technical Data Sheet

EcogROUT MC15

High Strength non-shrink cementitious Micro concrete for concrete repair

Description

EcogROUT MC15 is a high strength, non-metallic, Portland cement based material with expansive additives designed for use in the filling of voids, and is typically applied in Pile cap reprofiling and ideally suited to repair large volume of concrete repairs at thicknesses from 10mm to 150mm.

Applications

- Pile cap reprofiling
- General Repair of all types of structural concrete elements such as walls, columns, beams and floors and void filling
- **EcogROUT MC15** can be applied for large volume repairs in excess of 10 mm. the product can be applied in sections generally up to 250 mm

Advantages

- Non-shrink Controlled expansions, ensuring positive surface contact
- Highly flow able with low permeability
- High strength
- Hydrogen and Chloride free
- Low alkali content minimizes the danger of alkali silica reaction.

Technical properties

Compressive strength to BS 1881; Part 116* @ 0.11 W/P

≥ 45 MPa @ 7day
≥ 65 MPa @ 28days

Working Time:

20 – 25min.
@ 20
12 – 17min.
@ 35°C

Color	Grey
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Setting Time to BS 4550:

initial @ 25°C	6 – 7 hrs.
final @ 25°C	9 – 10 hrs.

Application Temperature	5°C - 40°C
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Thicknesses and size limitations

EcogROUT MC15 can be applied in a single application for large repair voids at thicknesses greater than 50mm and up to 150 mm for large areas.

Method of use

Substrate Preparation

- All damaged and weak concrete shall be cut back to reach sound concrete or to a minimum depth of application to provide square edge.
- Corroded steel reinforcement should be grit blasted to remove all rust traces.
- Steel loss up to 25% of original section shall be compensated, where loss of section exceeds 25%, steel reinforcement shall be replaced.
- Remove all concrete form around exposed steel reinforcements by 20mm thickness.
- The perimeters of the repair area should be saw cut to a minimum depth of 15mm.
- The prepared area should be cleaned thoroughly by brush and /or compressed air.
- A watertight formwork should be used to avoid mortar loss.

Priming

- All grit blasted steel reinforcements should be primed with zinc rich epoxy coating.
- Areas to be repaired with **EcogROUT MC15** should be soaked with clean water for several hours before applying the repair mortar. All excess water should be removed.
- Provided that the substrate has been thoroughly soaked with clean water and is damp on application of product a primer is not normally required.
- For concrete highly contaminated with soluble salts, it is recommended to use **Ecobond EP**, an epoxy bonding agent, which prevents migration of salts such as chloride ions and sulphate to the repair patch, as well as providing bond for **EcogROUT MC15** to host concrete.

Disclaimer:

We hope that the information herein will be helpful. The data is based upon knowledge considered to be accurate and true and is offered for the user consideration, investigation and verification in the application intended. We do not warrant the results or performance attained due to the nature of the influence of other constituent components in the application.



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Mixing

Depending on the consistency required, 3.25 liter (flowable) or 2.75 liter (trowel-able) of clean water should be added to a clean container.

The 25 kg powder is then added slowly to the water while mixing continuously with mechanically powered mixer or drill fitted with suitable paddle (400 - 600 rpm).

Mixing time should be continued for 4 to 5 minutes until a uniform consistency is obtained. Where the first 2 minutes of mixing the mixture will be stiff.

The mixed grout shall be poured immediately after mixing, the grouting operation must be carried out continuously.

Placing And Finishing

EcogROUT MC15 should be poured in a single continuous operation, within 25 minutes of mixing. The mixed materials should be poured slowly to prevent air entrapment.

Curing

As **EcogROUT MC15** is a cementitious based material, it should be cured in a similar method to concrete. Curing can be conducted by using a good concrete curing compound such as **Ecocure AC**.

Theoretical Coverage

Approximately: 12.2 liter / 25kg bag

Storage

EcogROUT MC15 shelf life is 12 months if stored at temperatures between 2°C and 50°C in original unopened bags.

If stored in high temperature and high humidity locations the shelf life may be reduced.

Cleaning

After the application all tools should be cleaned with water. **EcogROUT MC15** can be cleaned with only mechanical abrasion after hardening.

Packaging

EcogROUT MC15 is packed in 25kg bags.

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Cautions

Health and safety

EcogROUT MC15 contains cement powders which, when mixed with water or upon becoming damp, release alkalis which can be harmful to the skin.

During use, avoid inhalation of the dust and contact with the skin or eyes. Wear suitable protective clothing - eye protection, gloves, and respiratory equipment (particularly in confined spaces).

The use of barrier creams to provide additional skin protection is also advised. In case of contact with the skin, rinse with plenty of clean water, then cleanse thoroughly with soap and water.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

Fire

EcogROUT MC15 is non-flammable.

E n v i r o c o n C o n s t r u c t i o n P r o d u c t s L L C



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