

REPAIRTOP R2



REPAIRTOP R2 is a non-structural polymer fiber-reinforced, water-repellent repair mortar, meeting the requirements of Class R2 according to BS EN 1504-3.

USES

- Suitable for both indoor and outdoor applications
- Repair on damaged concrete by rusty reinforcing steel bars due to carbonation and/or chloride penetration.
- Quick repairs to deteriorated parts in concrete beams, pillars, or non-structural members.
- Repair of prefabricated concrete members and elements.
- Repair of concrete floor, cornices, casting of slopes of drains and drainage

CONSTITUENTS

- Ordinary Portland Cement CEM I conforming to EN 197.
- Basaltic Sand graded up to 1 mm.
- Additives with shrinkage-reducing, set time controlling & adhesion enhancing properties.
- Synthetic Fibres.
- Water Repellent

KEY FEATURES

- Meets the requirement of BS EN 1504 – 3; Class R2 (Non - Structural repairs)
- Pre-packed mortar.
- Easy to mix and apply.
- Low Shrinkage.
- Excellent adhesion.
- Fast setting properties.
- Application thickness of up to 50 mm.
- High mechanical properties.
- Compatible with corrosion inhibitor (Example: ZINC-ALU PAINT or any equivalent).

TESTS / STANDARDS

- All quality control tests have been performed based on EN 1015 and EN 1504-3 methods of mortar testing.
- Drymix Ltd is certified ISO 9001; as such there is a factory production control system in place to ensure good quality of raw materials, semi-finished materials & finished goods.

TECHNICAL DATA

PRODUCT AND APPLICATION DATA

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|--------------------------------------|---|
| Appearance | Grey powder |
| Packaging | 25 kg bag |
| Storage Conditions | 1 month from date of production if stored properly in original unopened, sealed, and undamaged packaging in dry and cool conditions |
| Maximum grain of aggregate | 1.00 mm |
| Water Demand | 5.0 - 5.25 L water per bag |
| Application Temperature | + 5°C to + 35°C |
| Workable life Approx. | 15 - 20 mins |
| Fresh Density | 2200 Kg/m ³ |
| pH | 13 |
| Minimum application thickness | 7 mm |
| Maximum application thickness | 50 mm |
| Consumption Approx. | 2.1 kg/m ² /mm (as a guide) |

PERFORMANCE DATA (REQUIREMENTS EN 1504-3 CLASS R2)

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|---|----------------------------------|
| Compression Strength (MPa) | ≥ 15 MPa |
| Chloride ion content (%) | ≤ 0.05 % |
| Adhesive Bond (MPa) | ≥ 0.8 MPa |
| Restrained Bond strength after test | Shrinkage (MPa) ≥ 0,8 MPa |
| | Expansion (MPa) ≥ 0,8 MPa |
| Carbonation Resistance [mm] | ≤ 6.0 mm |
| Skid resistance, wet tested [units] | Class II |
| Capillary absorption [kg/m²·√h] | < 0.5 |
| Elastic Modulus (GPa) | ≥ 15 GPa (R3) |
| Fire Resistance | Class A1 |

APPLICATION METHODOLOGY

SURFACE PREPARATION

- Remove all traces of grease, oil, cement laitance.
- Probe all surfaces to be repaired with a hammer to detect non-adherent areas.
- Remove the defective parts by stitching down to sound concrete and leave sharp edges on the edges.
- The substrate must be hard, cohesive, clean and rough in order to promote adhesion of the repair mortar.
- Completely remove oxidized reinforcements from steel treatment.
- Always remove rust from irons with a wire brush or sandblasting, then dust carefully.
- Treat the steels by applying a thick layer of the anti-corrosion coating (example: ZINC-ALU PAINT), taking care to avoid its contact with the concrete.
- Allow to dry approximately 30-45 minutes before applying **REPAIRTOP R2**.

PRODUCT PREPARATION.

- Mix manually or mechanically.
- Pour clean water into a container and slowly add **REPAIRTOP R2** while mixing.
- Mixing rate: 5.25 L of water per 25 Kg bag.
- Apply manually in one or more passes depending on the thickness and finish.
- Build up layers to the recommended thickness and compact them without inclusion of entrapped air and proceed with standard finishing step.
- Application thickness varies from 7 mm to 50 mm (Application shall be done in several layers up to 50mm).
- Level the surface with an aluminium rule and proceed with standard finishing method
- To obtain smoothed finish, apply a 10 mm thick finishing pass after the previous passes have hardened.
- To obtain a homogeneous result, rinse the sponge every 1-1.5m².
- Clean tools with water while the product is fresh.

PRECAUTIONS

- Do not apply the product at temperatures < 5°C and > 35° C.
- Avoid applications during rainy periods even if intermittent or on surfaces with dripping water.
- To avoid shrinkage, it is imperative to respect the gauging water quantity.
- Ensure that surfaces of applications are protected against the wind and direct sunshine in order to prevent rapid desiccation of the product leading to shrinkage as well.

CURING DETAILS

It is essential to cure the render the next day following application for a minimum of 3 days to ensure full cement hydration and to minimize cracking. (Avoid performing high vibration work during this period).

HEALTH & SAFETY NOTES

As with all cement-based products:

- Wearing of gloves, goggles are highly recommended during application.
- Avoid contact with the eyes & skin.
- In case of contact with skin or the eyes, wash abundantly with clean water.
- In case irritation persists, consult a doctor immediately

For further information and advice on the safe handling, storage and disposal of this products, user shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

NOTES

The information, and, in particular, the recommendations relating to the application and end-use of DRYMIX products, are given in good faith based on DRYMIX's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with DRYMIX's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.