

RonaBond Concrete Repair Mortar



Pre-packed polymer modified concrete repair mortar



FEATURES

- Pre-packed concrete repair mortar
- British Board of Agrément approved
- Excellent long term durability - will last as long as the surrounding concrete
- Waterproof
- High build up to 35mm per layer
- Compressive strength in excess of 45N/mm²
- Suitable for structural and cosmetic repairs
- Easy to mix and apply
- Approved by WRC for use in contact with potable water

Description

RonaBond Concrete Repair Mortar is a prepacked, ready to use mortar for concrete repair and is used with Ronacrete Standard Primer which gives monolithic adhesion to all correctly prepared surfaces.

RonaBond Concrete Repair Mortar is used to repair and replace concrete damaged as a result of spalling through reinforcement corrosion, freeze/thaw cycling, impact or other damage.

Test Data

Compressive Strength @ 28 Days	50N/mm ²
Tensile Strength @ 28 Days	5N/mm ²
Flexural Strength @ 28 Days	15N/mm ²

Water Permeability

0-10 minutes	not detectable
10-30 minutes	nil
30-60 minutes	nil

Shrinkage

3:1 sand : cement mortar	0.07%
RonaBond Concrete Repair Mortar	0.01%

Carbonation Tests

Repair mortar applied	1971
Investigation conducted	1984
Depth of repair mortar	30.7mm (average)
Estimated complete carbonation	1,072 years (average)
Minimum protection afford	77 years

Note that all quoted data is based on laboratory tests conducted at 20°C. Cubes, tested at 28 days, are 100mm and air cured. Results shown are MAXIMUM laboratory strengths achieved by casting and curing cubes in ideal working conditions; site strengths will be lower.



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Packaging / Yield

RonaBond Concrete Repair Mortar is supplied in 25kg packs. Coverage is approximately 1m² at 11mm.

Ronacrete Standard Primer is supplied in 2kg and 10kg packs. Coverage is 3-4m² and 15-20m² respectively.

Instructions for Use

Preparation

All concrete identified for removal must be removed back to a suitable substrate which is sound and stable and strong enough to accept the mortar.

Reinforcing steel in the repair area must be exposed, and concrete cut back along the length of the steel to expose clean uncorroded steel. Loose rust and scale must be removed. Cut around the periphery of spalled areas to a minimum depth of 6mm at 90° to avoid dished edged and feather edged repairs.

Remove concrete around steel to allow not less than 15mm of repair mortar to be placed around the steel. Corroded steel must be replaced where necessary. All removal of concrete and steel must be carried out in accordance with the specifiers recommendations.

All surfaces must be cleaned to remove all loose dust, debris and surface contamination which may prevent adhesion of repair mortar to concrete and steel. Water used must be clean and of potable quality.

When repairing chloride contaminated concrete any exposed reinforcing steel must be grit blasted or similarly prepared back to bright, uncorroded steel.

Following preparation of concrete and steel, thoroughly damp all concrete surfaces to be repaired. Remove any standing water.

Priming

Mix and brush apply Ronacrete Standard Primer to the steel and allow to become tacky, not dry. When priming coat on steel is tacky, brush a single coat of Ronacrete Standard Primer on to the damp concrete and apply a second coat on to the steel. Ensure that the first priming coat applied to the steel is not removed during the application of the second coat.

The concrete repair mortar must be applied on to the wet or tacky primer before the primer dries. If the primer dries it must be thoroughly scarified and reapplied.

Mixing

Mix RonaBond Concrete Repair Mortar in a forced action mixer (eg. Creteangle or Baron pan mixer) or mix single pack mixes with a slow speed 1kw drill fitted with an MR4 type paddle. Do not use a free fall mixer. Add all of the supplied gauging liquid to the mixer or mixing vessel, commence mixing and gradually add the powder component for approximately 3 minutes, until components are fully dispersed.

Placing

Apply in layers to achieve the required thickness, reform the original profile of the



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Certificate No. 90/2421

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concrete and cover reinforcing steel. Layer thickness will vary according to the shape and size of the repair, the nature of the substrate and mixing and application technique. Minimum depth of application is 6mm. Maximum depth per layer 35mm. Apply not less than 15mm around reinforcing steel. Compact to prevent honeycombing and voids. Scratch the face of intermediate layers, allow to firm up and apply Ronacrete Standard Primer immediately prior to applying the next layer.

Anti-carbonation coating

If applying a protective or decorative coating such as RonaBond Cracking Bridging Anti-Carbonation Coating WB or RonaBond Anti-Carbonation Coating WB, leave the final layer with a sponged or float finish to aid adhesion.

Curing

Cure the surface with Ronacrete Curing Membrane if being covered with a coating or another layer of mortar such as RonaBond Easy Skim FC.

Working Temperatures

RonaBond Concrete Repair Mortar can be used in most weather conditions and in a wide temperature range, typically from +3°C to 25°C and above;.Note that at high ambient temperatures the working time of the mix will be reduced; it will be increased at lower temperatures. Ideally store materials between 10°C and 20°C before use.

Health and Safety

Refer to Safety Data Sheet.

Storage

RonaBond Concrete Repair Mortar should be stored unopened between 5°C and 25°C in dry warehouse conditions and out of direct sunlight. In these conditions shelf life is approximately 9 months.

Site Attendance

When on site Ronacrete representatives are able, if asked, to give a general indication of the correct method of installing a Ronacrete product. It is important to bear in mind that Ronacrete Ltd is a manufacturer and not an application contractor and it is therefore the responsibility of the contractor and his employer to ensure he is aware of and implements the correct practices and procedures to ensure the correct installation of the product and that liability for its correct installation lies with the contractor and not with Ronacrete Ltd.




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Ronacrete Ltd, Flex Meadow, Harlow Essex, CM19 5TD, UK 13 0836-CPR-13/F046
BS EN 1504-3 Concrete Repair
Product: RonaBond Concrete Repair Mortar Compressive Strength: ≥ 25 MPa Chloride ion Content: $\leq 0.05\%$ Bond Strength Test: ≥ 1.5 MPa Rest. Shrinkage/Expansion: ≥ 1.5 MPa Carbonation Resistance: $dk \leq$ control concrete (MC (0.45)) Reaction to Fire: A2-s1,d0 Dangerous Substances: Refer to Safety Data Sheet

The information detailed in this leaflet is liable to modification from time to time in the light of experience and of normal product application, and before using, customers are advised to check with Ronacrete Ltd, quoting the reference number, that they possess the latest issue. Any person or company using the product without first making further enquiries as to the suitability of the product for the intended use does so at his own risk, and