

# Ronabond Concrete Repair Mortar

Prepacked concrete repair mortar



Certificate No. 90/2421

## FEATURES

- ✓ prepacked concrete repair mortar
- ✓ British Board of Agrément approved
- ✓ Excellent long term durability - will last as long as the surrounding concrete
- ✓ High build up to 35mm per layer
- ✓ Compressive strength in excess of 45N/mm<sup>2</sup>
- ✓ Suitable for structural and cosmetic repairs
- ✓ Easy to mix and apply
- ✓ Approved by WRC for use in contact with potable water

## SPECIFICATION CLAUSES

### Concrete Repair - standard specification

The concrete repair mortar shall be British Board of Agrément approved Ronabond Concrete Repair Mortar by Ronacrete Ltd, telephone +44 (0) 1279 638700. The primer for steel and concrete shall be Ronacrete Standard Primer. All materials to be applied in accordance with manufacturers instructions.

## SUMMARY APPLICATION PROCEDURE

### RONABOND CONCRETE REPAIR MORTAR

1. prepare surface
2. expose and clean reinforcing steel as necessary
3. apply one coat of Ronacrete Standard Primer to concrete
4. apply two coats of Ronacrete Standard Primer to steel
5. mix and apply Ronabond Concrete Repair Mortar
6. cure with Ronacrete Curing Membrane
7. apply protective anti-carbonation coating (refer to Ronabond

## Description

Ronabond Concrete Repair Mortar is a prepacked, ready to use mortar for concrete repair and is used with Ronabond 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.

## Advantages

- prepacked factory blended mortar
- high strength
- waterproof
- monolithic adhesion to building surfaces
- BBA Certification states that repairs will last "at least the life of the surrounding concrete"

## 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 pan mixer). Do not use a free fall mixer. Mix the dry components and when evenly dispersed add the minimum amount of the supplied gauging liquid to provide sufficient workability for compaction and surface finish.

Apply in layers to achieve the required thickness, reform the original profile of the 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 Joltec or Ronabond Zolpacryl 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.

### Packaging, Yield

Ronabond Concrete Repair Mortar is supplied in 25kg packs. Coverage is approximately 1m<sup>2</sup> at 11mm.

Ronacrete Standard Primer is supplied in 2kg and 10kg packs. Coverage is 3-4m<sup>2</sup> and 15-20m<sup>2</sup> respectively.

# Ronabond Concrete Repair Mortar

Prepacked concrete repair mortar



Certificate No. 90/2421

## 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

Ronabond Concrete Repair Mortar materials is non-hazardous although protective clothing such as goggles, overalls and gloves is recommended to prevent any effect from prolonged skin contact, inhalation or ingestion.

In the event of skin contact, wash with soap and water. Seek medical advice if irritation or pain occurs. In the event of eye contact, irrigate with plenty of clean water and seek immediate medical advice. In the event of ingestion, do not induce vomiting. Seek immediate medical advice.

## 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.

Test Data	
Compressive strength	50N/mm <sup>2</sup>
Tensile Strength	5N/mm <sup>2</sup>
Flexural Strength	15N/mm <sup>2</sup>
<b>Water Permeability</b>	
0-10 minutes	Not detectable
10-30 minutes	nil
30-60 minutes	nil
<b>Shrinkage</b>	
3:1 sand:cement mortar	0.07%
Ronabond Concrete Repair Mortar	0.01%
<b>Carbonation Tests</b>	
Repair mortar applied	1971
Investigation conducted	1984
Depth of repair mortar	30.7mm (average)
Estimated complete carbonation	1,072 years (average)
Minimum protection afforded	77 years
<b>Technical and Test Data</b>	
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.	