

**FORMULATORS, MANUFACTURERS AND CONSULTANTS OF  
SPECIAL CONCRETE PRODUCTS**

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**ROCKBOND REPAIR CONCRETE****DESCRIPTION:**

ROCKBOND REPAIR CONCRETE (RB RC) powder is a specially formulated, pre-mixed, ready to use, cementitious concrete powder. The compound contains a blend of fine cements, high quality graded crushed rock sands and road stone aggregates and a set of compatible admixtures. The material readily mixes with water to produce a flowing repair concrete which is self compacting and hardens to give a strong bonding, high strength product. The powder is packaged in 25kg moisture proof, durable bags and has a shelf life of 5 years.

**SPECIAL PROPERTIES:**

- \* Designed to the Department of Transport Specification for Highway Works.
- \* Quickly and easily mixed with water, poured, pumped and placed.
- \* Flowing consistency promotes penetration into confined spaces, and into weak and damaged concrete substrates.
- \* The concrete will not segregate or bleed at the recommended water content.
- \* Shrinkage compensated, with low alkali cements, equivalent Na<sub>2</sub>O below 3kg/m<sup>3</sup>.
- \* Excellent bond strength, and good mechanical strengths.
- \* Resistant to static, dynamic, cyclic and vibrational stresses.
- \* Incorporates unreactive sands and aggregates safe from Alkali Silica Reaction (ASR).
- \* High yielding, economical, non flammable, non toxic, odour free, user friendly and safe to use.

**USES:**

- For general purpose and high performance concreting applications.
- + Concrete repairs to reinforced concrete structures.
  - + Load bearing and structural applications.
  - + Motorway bridges, viaducts and carriageway repairs.
  - + Repair and protection of concrete structures in marine environments.
  - + To repair concrete floors, car parks, pathways, loading bays, roadways and motorways.
  - + Void filling and sealing applications to concrete, masonry and steel.
  - \* Long lasting shelf life of 5 years or more when bags are stored in a cool, dry and dark place

**MIXING INSTRUCTIONS:**

ROCKBOND REPAIR CONCRETE powder is mixed with water using a ROCKBOND CONCRETE STIRRER (RB CS), an electric power tool (1kW) and a ROCKBOND 25 LITRE MIXING CONTAINER (RB 25LMC). Use a ROCKBOND FORCED ACTION PAN MIXER (RB FAPM) to mix larger amounts of material.

Add 3.50 litres of water to the container or mixer.  
Pour 25kg of powder onto the water while mixing.  
For batches of 2 or more bags, repeat the procedure.  
After all the powder has been added, mix for 30 seconds.  
The concrete is now ready for use.

Alternatively, small amounts of the material can be prepared by slowly adding the powder to a quantity of water in a suitable container and mixing to give the appropriate consistency.

## ROCKBOND REPAIR CONCRETE (RB RC).

### MIXING INSTRUCTIONS CONTINUED

Alternatively, small amounts of the concrete can be prepared by slowly adding the powder to a quantity of water in a suitable container and mixing and adding the water to give the appropriate consistency correct for the job in hand, not too stiff or too wet.

Do NOT over water the mix. Mixing by hand is NOT recommended. If the aggregate segregates in the concrete mix, then the mix contains too much water and the water content needs to be reduced to Produce a homogeneous mix.

### APPLICATION PROCEDURE:

Careful and proper preparation of the concrete substrate is essential if a successful repair is to be carried out. Thoroughly and completely abrade the surface where necessary to produce a sound substrate with a good mechanical key. All traces of contamination must be removed. Vacuum clean or blow away all dust and debris.

On weak, friable or porous substrates, use ROCKBOND PRIMER LATEX (RB PL) to penetrate, consolidate, strengthen and seal the surface. With a brush or a soft broom, brush the latex completely and evenly over the surface. Work the latex well into the substrate. Pay particular attention to the edges of the repair, and brush the liquid at least 25mm beyond the perimeter of the repair area. Let the latex dry out, usually 15 to 20 minutes depending on conditions.

To prime the substrate and to enhance the bond, apply a second coat of the latex to the first coat. Normally, 1 litre of the ROCKBOND PRIMER LATEX will treat 5m<sup>2</sup> of concrete surface with a two coat application.

Shutters must be impermeable to the passage of water, and strong enough to contain and support the concrete. Use ROCKBOND CURE (RB C) to seal and waterproof porous shutters. Sufficient hydrostatic head must be given to the material to enable it to flow completely through the void to be filled. Make sure enough concrete is mixed and available so that the operation can be performed in one continuous pour.

After concrete has set, or when the shutters are removed, any exposed concrete must be immediately cured with ROCKBOND CURE (RB C). Apply the curing agent at the rate of 10m<sup>2</sup>/litre. During adverse weather conditions, such as high temperatures and drying winds, repeat the procedure after the first coat is dry.

### TECHNICAL DATA:

#### TYPICAL DATA at 14% water/powder ratio at 20°C

CONSISTENCY: Flowing concrete  
CONSISTENCY LIFE: 30 minutes

DENSITY: 2220kg/m<sup>3</sup>

#### MINIMUM COMPRESSIVE STRENGTH:

|    |    |    |      |
|----|----|----|------|
| 1  | 7  | 28 | Days |
| 20 | 40 | 60 | MPa  |

YIELD: 25kg of powder yields 11.25 litres of Repair Concrete.  
1m<sup>3</sup> of Repair Concrete requires 2.225 tonnes of powder.

ROCKBOND REPAIR CONCRETE (RB RC) CONTINUED...

HEALTH, SAFETY AND STORAGE:

ROCKBOND REPAIR CONCRETE powder is non toxic and safe to use. However, use the same precautions as with any cementitious product: wear goggles, protective clothing and a dust mask while mixing and applying the material. Consult the relevant MSDS for further details. Store in a cool, dry, dark place.

FURTHER INFORMATION:

Should you require further information on this product, or details of other ROCKBOND SPECIAL CONCRETE PRODUCTS, then please do contact our Technical Department:

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[https://rockbond.co.uk/wp-content/uploads/2018/11/PL01\\_08\\_01\\_1\\_Rockbond\\_Repair\\_Concrete\\_RC\\_October\\_2018.pdf](https://rockbond.co.uk/wp-content/uploads/2018/11/PL01_08_01_1_Rockbond_Repair_Concrete_RC_October_2018.pdf)

IMPORTANT NOTE:

ROCKBOND SCP LTD provides the above information in good faith and without warranty. The data represents typical values which can be updated at any time, and this information supersedes previous issues. No liability can be accepted for any damage or loss arising from the use of ROCKBOND SCP LTD literature or its products, because the company has no continuous control on how the products are mixed, placed or cured.

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