

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 sands and aggregates, and a set of admixtures. The material readily mixes with water to produce a fluid flow repair concrete which is self compacting and hardens to give a high strength product. The powder is packaged in 25kg durable bags and has a shelf life of 2 years.

SPECIAL PROPERTIES:

- * Designed to the Department of Transport Specification for Highway Works.
- * Quickly and easily mixed, poured, pumped and placed.
- * Fluid flow 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, low alkali cements, equivalent Na₂O below 3kg/m³.
- * Excellent bond strength, and good mechanical strengths.
- * Resistant to static, dynamic, cyclic and vibrational stresses.
- * Incorporates unreactive sands and aggregates safe from ASR attack.
- * Economical, non flammable, non toxic, 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.
- + Repair and protection of concrete structures in marine environments.
- + Motorway bridges, viaducts and carriageway repairs.
- + To repair concrete floors, car parks, pathways, loading bays, roadways and motorways.
- + Void filling and sealing applications to concrete, masonry and steel.

MIXING INSTRUCTIONS:

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

Add 3.00 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 and mixing to the required consistency.

ROCKBOND REPAIR CONCRETE (RB RC) CONTINUED...

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.

If the substrate requires a primer, or to enhance the bond, apply a second coat of latex to the first coat. Normally, 1 litre of ROCKBOND PRIMER LATEX (RB PL) will treat 5m² of concrete surface with 2 coats of latex.

Shutters must be impermeable to the passage of water, and strong enough to contain and support the concrete. 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 been completed, 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 10m²/litre. During adverse curing conditions, repeat the procedure.

HEALTH AND SAFETY:

ROCKBOND REPAIR CONCRETE (RB RC) 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.

TECHNICAL DATA:

TYPICAL DATA at 12% water/powder ratio at 20°C

CONSISTENCY: Fluid concrete
CONSISTENCY LIFE: 30 minutes

DENSITY: 2250kg/m³

MINIMUM COMPRESSIVE STRENGTH:

1	7	28	Days
20	35	60	MPa

YIELD: 25kg of powder yields 11.25 litres of Repair Concrete.
1m³ of Repair Concrete requires 2.225 tonnes of powder.

ROCKBOND REPAIR CONCRETE (RB RC) CONTINUED...

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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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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