ROCK-BOND

ROCKBOND SCP LTD

FORMULATORS, MANUFACTURERS AND CONSULTANTS OF SPECIAL CONCRETE PRODUCTS

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ROCKBOND FLEXIBLE (APFC) MEMBRANE

DESCRIPTION:

ROCKBOND FLEXIBLE (APFC) MEMBRANE (RB FM) is a two part elastomeric Anti-carbonation, Protective Flexible Coating. The dry pack, ROCKBOND FLEXIBLE MEMBRANE DRY PACK (RB FM DP) is a blend of special cement powders, graded sands and compatible admixtures. When the powder is mixed with the ROCKBOND FLEXIBLE LATEX CONCENTRATE (RB FLC), a grey coating is produced which is extremely adhesive, flexible and waterproof. The membrane waterproofs and protects concrete against carbonation, acid gases and chemical attack. The material is supplied in 3kg/2 litre or 15kg/10 litre packs and has a shelf life of 5 years.

SPECIAL PROPERTIES:

* 2mm of Flexible Membrane provides anti-carbonation protection to concrete equivalent to 50mm of good quality concrete!
* Available in white, and also in a range of colours.
* Easy to mix and applied by trowel, float, spatula, brush or spray.
* Adheres strongly to all construction materials: cement, mortar, render, concrete, masonry, brick, stone, steel, wood, plastic, fibreglass and glass.
* Provides a permanent waterproof bond to concrete in situations where there is a positive or negative hydrostatic pressure.
* Microporous, waterproof, weatherproof and impermeable to aqueous solutions and liquids.
* Elastic: will flex in sympathy with moving or cracked concrete, render, brick or wood.
* Permanent, resilient, and durable, and resistant to ultraviolet (UV) radiation.
* Protects concrete against frost attack, salt water, carbonation, sulphation and acid gases.
* Water “soluble” - the material and equipment can be washed and cleaned with water.
* High yielding, economical, non flammable, non toxic, odour free, user friendly and safe to use.

USES:

+ For use as an Anti-carbonation Protective, Flexible Coating (APFC) to cement and concrete.
+ Whenever stress, thermal or moisture movement is a problem at a crack, joint, gap or within a concrete structure.
+ Tanking, roofing, weatherproofing and waterproofing applications.
+ The filling, sealing and waterproofing of moving cracks, joints, gaps and seals.
+ To protect reinforced concrete structures against freeze/thaw cycles, salt water, de-icing salts and the corrosion of steel.
+ To protect concrete in extreme climatic conditions, high altitude and in severe weather.
+ Elastic requirements during cold weather or low temperature situations.
+ To protect concrete where chemical attack is prevalent such as in marine and offshore locations, chemical works, food processing factories, sewers and farms.
+ As a flexible adhesive to bond concrete, tiles, bricks and blocks to concrete, steel, wood, plastic, glass and other construction materials.

MIXING INSTRUCTIONS:

ROCKBOND FLEXIBLE MEMBRANE DRY PACK is mixed with the ROCKBOND FLEXIBLE LATEX CONCENTRATE using a ROCKBOND CONCRETE STIRRER (RB CS), a pneumatic or electric power tool (1kW) and a ROCKBOND 25 LITRE MIXING CONTAINER (RB 25LMC).

ROCKBOND FLEXIBLE (APFC) MEMBRANE, MIXING INSTRUCTIONS CONTINUED...

Pour the membrane dry pack onto the latex while mixing slowly.
(The latex/powder ratio by weight is 50%). Mix for 1 minute.
The Flexible Membrane is now ready for use.

Alternatively, small amounts of the material can be prepared by slowly adding the powder to a quantity of latex and mixing to the required consistency.

APPLICATION PROCEDURE:

Good surface preparation is an essential part of any successful repair. All substrates should be mechanically sound and thoroughly clean. On heavily contaminated concrete and other surfaces, any dirt, oil, grease and organic growth must be mechanically removed until a good, sound, strong concrete substrate is obtained. Brush or blow away any dust or debris.

On weak, friable or porous substrates, use the 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 area to be covered. 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 5m² of concrete surface with a two coat application.

Use ROCKBOND FASTROCK MORTAR (RB FRM) to repair, fill and smooth any necessary areas.

Apply the first coat of membrane by brush, steel float or spatula at the rate of 1 litre/m² (1mm cover/m² surface of concrete), and spread the membrane completely and evenly over the concrete surface. Let the first coat dry out before applying the second coat, which can vary from 1 to 24 hours, depending on conditions of temperature, humidity and wind. When the first coat is sufficiently dry and firm, repeat the procedure for the second coat.

If the membrane is spray applied, two coats can be applied in one operation. Spray “wet on wet”. Apply the first coat at the rate of 1 litre/m² and return a few minutes later to apply the second coat.

The spread rate for a two coat application is 2.0 litres/m²

The number of coats, and the total thickness of the membrane cover over the concrete surface should not be less than 2 x 1mm.

ROCKBOND FLEXIBLE (APFC) MEMBRANE cures by drying out and does not require the application of a curing membrane.

HEALTH, SAFETY AND STORAGE:

ROCKBOND FLEXIBLE MEMBRANE DRY PACK 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.

ROCKBOND FLEXIBLE LATEX CONCENTRATE is non toxic and safe to use. However, if splashes enter the eyes, the latex must be immediately washed out with plenty of clean running water. If the latex is ingested, give the patient plenty of water to drink. Wear goggles, a mask and protective clothing while handling, spraying and applying the material. Consult the relevant MSDS for further details. Store in a cool, dry, dark place.

ROCKBOND FLEXIBLE (APFC) MEMBRANE CONTINUED...

TECHNICAL DATA:

TYPICAL DATA at 50% latex/powder ratio at 20ºC

CONSISTENCY:	Good mortar consistency
CONSISTENCY LIFE:	20 minutes
DENSITY:	2000kg/m³
ELONGATION AT FAILURE:	70%
WATER VAPOUR DIFFUSION RESISTANCE, Sd:	1.8m
CARBON DIOXIDE DIFFUSION RESISTANCE, Sd:	180m

FLEXIBLE MEMBRANE DIRECT TENSILE BOND STRENGTHS:

BOND STRENGTH TO PORTLAND CEMENT CONCRETE SURFACES:	3.7N/mm^2
BOND STRENGTH TO PORTLAND CEMENT CONCRETE SURFACES, SEALED AND PRIMED WITH ROCKBOND PRIMER LATEX:	5.2N/mm^2
BOND STRENGTH TO STEEL SURFACES:	4.3N/mm^2

YIELD: 1 x 3kg pack yields 2.00 litres of Flexible Membrane.
1 x 3kg pack of membrane covers 1m² of concrete at 2 x 1mm cover.
1 x 15kg pack yields 10.00 litres of Flexible Membrane.
1 x 15kg pack of membrane covers 5m² of concrete at 2 x 1mm cover.
100m² of Flexible Membrane at 2mm cover requires 20 x 15kg packs.

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:

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SEPTEMBER 2019