

# ROCKBOND SCP LTD

## FORMULATORS, MANUFACTURERS AND CONSULTANTS OF SPECIAL CONCRETE PRODUCTS

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#### ROCKBOND FASTROCK ACCELERATED CEMENT AND MORTAR

#### **DESCRIPTION:**

ROCKBOND FASTROCK ACCELERATED CEMENT (RB FRACm) is a blend of special cement powders which, when mixed with water, produces a fast setting, quick strength cementitious binder. The cement is ideal for use on site with sand, or with sand and aggregates, to produce semi flow, quick strength, high strength, mortars and concretes for concrete repairs, floor screeds, and bedding in applications. The materials are used when an early return to service is required during winter weather work, or when the ambient temperatures are low. ROCKBOND FASTROCK ACCELERATED MORTAR (RB FRAM) is ROCKBOND FASTROCK ACCELERATED CEMENT dry mixed with graded sands and is ready for use. The powders are packaged in 25kg moisture proof, durable bags and have a shelf life of 5 years.

#### **SPECIAL PROPERTIES:**

- \* Simple and easy to use: just add the cement, sand and aggregates to water, and mix.
- \* Produces fast setting and early strength development in mortars and concretes at 5°C.
- \* Strong cementitious binder: produces strong bonding, high strength materials.
- \* Fastrock accelerated cement mortars and concretes are impermeable and durable.
- \* The cement mixed with site batched sand and aggregates produce low cost materials.
- \* Contains no chlorides, ferrous metal or other deleterious substances.
- \* High yielding, economical, non flammable, non toxic, odour free, user friendly and safe to use.

#### **USES**:

- + Quick fixings and connections into concrete, masonry, rock, block and brick during winter weather work, or when ambient temperatures are low or freezing.
- + Applications that require a guick strength, high strength cement, mortar or concrete.
- + Quick and thin section repairs to defective concrete and masonry.
- + Fast patch and edge repairs to precast concrete, roadways, pathways, floors and steps.
- + Quick bedding in of precast concrete units, manhole rings and covers, posts, kerbs, stones, slabs, bricks and frames.

#### MIXING INSTRUCTIONS:

ROCKBOND FASTROCK ACCELERATED CEMENT powder is mixed with water using a ROCKBOND CONCRETE STIRRER (RB CS), a pneumatic or electric power tool (1kW) and a ROCKBOND 25 LITRE MIXING CONTAINER (RB 25LMC). Mix small quantities of cement, sand and aggregate with water as and when required.

Pour a quantity of water into the container or mixer.

Add the FASTROCK ACCELERATED CEMENT and sand to produce a mortar.

Add the FASTROCK ACCELERATED CEMENT, sand and aggregate to produce a concrete.

Add further small quantities of water until the required consistency is obtained.

After all the ingredients have been added, mix for 30 seconds.

The Fastrock Accelerated Mortar or Fastrock Accelerated Concrete is now ready for use.

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#### ROCKBOND FASTROCK ACCELERATED CEMENT (RB FRACm) AND MORTAR (RB FRAM),

#### MIXING INSTRUCTIONS CONTINUED...

For a quick strength mortar use 1 part cement to 3 parts of sand by weight. For a quick strength semi flow concrete use 1 part cement, 1 part sand and 2 parts of a 3mm to 6mm aggregate by weight. Use sand and aggregates that are clean and dust free. For a high early strength development, increase the cement content and reduce the water. Normally mix to a slightly wet mortar consistency, or slightly wet concrete consistency.

ROCKBOND FASTROCK ACCELERATED MORTAR powder is pre mixed and ready to use. Mix the powder with water at 16% water content: 4.0 litres of water/25kg bag of powder.

#### APPLICATION PROCEDURE:

For concrete repairs: 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. Brush 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. Brush out any puddles, and let the latex dry out, usually 15 to 30 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.

Only mix as much mortar or concrete that can be comfortably placed in 10 minutes. Once in place avoid heavy traffic for 2 hours.

Use ROCKBOND FASTROCK CEMENT (RB FRCm) or ROCKBOND FASTROCK MORTAR (RB FRM) at ambient temperatures of 10°C and above.

#### TECHNICAL DATA:

ROCKBOND FASTROCK ACCELERATED CEMENT (RB FRACm)

TYPICAL DATA at 32% water/powder ratio at 5°C

CONSISTENCY: Good Mortar Consistency

CONSISTENCY LIFE: 10 minutes

DENSITY: 2010kg/m<sup>3</sup>

MINIMUM COMPRESSIVE STRENGTH:

1hour 2 hours 3 hours 1 7 28 Days 4 8 10 25 40 60 MPa

YIELD: 25kg of powder yields 15.00 litres of Fastrock Accelerated Cement. 1m³ of Fastrock Accelerated Cement requires 1.675 tonnes of powder.

### ROCKBOND FASTROCK ACCELERATED CEMENT (RB FRACm) AND MORTAR (RB FRAM),

#### TECHNICAL DATA CONTINUED...

#### ROCKBOND FASTROCK ACCELERATED MORTAR (RB FRAM)

TYPICAL DATA at 16% water/powder ratio at 5°C

CONSISTENCY: Good Mortar Consistency

CONSISTENCY LIFE: 10 minutes

DENSITY: 2150kg/m<sup>3</sup>

#### MINIMUM COMPRESSIVE STRENGTH:

1hour 2 hours 3 hours 1 7 28 Days 4 8 10 30 50 70 MPa

YIELD: 25kg of powder yields 12.00 litres of Fastrock Accelerated Mortar. 25kg of powder treats 1m² of concrete at 12mm cover. 1m³ of good mortar requires 2.100 tonnes of mortar powder.

#### **HEALTH, SAFETY AND STORAGE:**

ROCKBOND FASTROCK ACCELERATED CEMENT and MORTAR powders are 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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#### **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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