

ROCKBOND UNDERWATER MORTARS

Quick Strength Cementitious Mortars

DESCRIPTION

ROCKBOND UNDERWATER MORTAR (RB 4.01) powder is a blend of special cement powders, high quality graded sands, and a unique combination of polymers and admixtures. The powder, when mixed with water, produces a mortar which is wash-out resistant and waterproof. The material develops an early strength and can be used above or below the waterline. ROCKBOND UNDERWATER ACCELERATED MORTAR (RB 4.02) is used at low temperatures, or when rapid gain in early strength is required. The mortar powders are packaged in 4kg plastic buckets and 25kg durable bags and with a shelf life of 2 years.

SPECIAL PROPERTIES

- Portland cement based, polymer modified and microsilica enhanced.
- The mortars develop an excellent putty consistency for ease of application.
- Can be used above and below the water-line.
- Will not disperse, wash-out or break up underwater.
- Underwater Accelerated Mortar develops an early strength gain at 5°C
- Strong impermeable bond to brick, masonry, steel and concrete.
- Mortars can be built up to a level of existing profiles in one operation.
- The mortar can be finished to produce a smooth and attractive surface.
- The material will not contaminate canals, rivers, reservoirs or lakes.
- The powder contains no iron, high alumina cement, chlorides or deleterious substances.
- High yielding, economical, non-flammable, non-toxic, odour free, user friendly and safe to use in underwater environments.

USES

- Offshore locations and applications.
- The repair of precast concrete, tunnels, culverts, sewers and pipes.
- To point and repair bricks, blocks and masonry above or below the waterline.
- The repair of concrete in tidal zones where time is limited.
- The protection of marine structures above and below the waterline.
- The consolidation of sea defences, harbours, jetties, docks, locks.
- To stop and seal the flow of water or grout in brickwork or concrete.
- Caulking material for seals and joints, and for sealing shutters.
- In situations where a quick early strength gain is required.
- Underwater Accelerated Mortar is designed for use during cold weather, or low temperature applications.

MIXING INSTRUCTIONS

ROCKBOND UNDERWATER MORTAR powders are mixed with water using a suitable container, a pneumatic or electric power tool (1KW), and a ROCKBOND STIRRER. Only mix amounts of mortar that can be successfully applied in 10-20 minutes. Mixing by hand is NOT recommended.

Add 4.5 litres of water to the container or mixer.
Pour 25kg of powder onto the water while mixing.
After all the powder has been added, mix for 1 minute.
The mortar is then ready to use.

Alternatively, small amounts of the material can be prepared slowly adding the powder to quantity of water and mixing to required consistency. Mixing by hand is NOT recommended.

APPLICATION PROCEDURE

All necessary preparatory work must be completed before the mortars are mixed. Ensure that all surfaces with which the mortars come into contact are clean, free of contamination and marine growth. For use above the waterline, soak concrete and brick substrates for a few minutes prior to the application of the mortars and remove any standing water.

Mix the mortar powders with water to as good consistency and wait a few minutes for the mortar to gel. With the use of gloved hand and fingers, form a CONTACT COAT: RUB the mortar onto and well into any cracks or cavities, and completely cover the substrate. RUB IT IN!

A contact coat applied properly will reduce voids at the bondline and promote intimate contact between the repair material and the concrete. It will also prevent peeling and slumping on vertical and soffit substrates. On the top of the contact coat, use a trowel or steel float to apply the material and bring up the profile of the surrounding concrete. For ease of application of the mortars above the waterline, and to remove stickiness, keep gloves and all implements wet. Use hand held water spray to wet mortar surfaces, and to produce smooth and attractive finishes.

In above water locations as soon as the material is in place and the application is complete, cure immediately with ROCKBOND MEMBRANE CURE (RB 7.11) at the rate of 7m²/litre.

During winter weather work, or low temperature applications, use ROCKBOND UNDERWATER ACCELERATED MORTAR (RB 4.02).

HEALTH AND SAFETY

ROCKBOND SPECIAL CONCRETE PRODUCTS 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.

TECHNICAL DATA

TYPICAL DATA for UNDERWATER MORTAR at 18% water/powder ratio at 20°C

CONSISTENCY: Good mortar
CONSISTENCY LIFE: 20 minutes

DENSITY: 2080kg/m³

MINIMUM COMPRESSION STRENGTH:

1	7	28	Days
15	30	50	N/mm ²

YIELD 25kg powder yields 14.00 litres of good mortar.
1m³ of good mortar requires 1.800 tonnes of powder.

TYPICAL DATA for UNDERWATER A MORTAR at 18% water/powder ratio at 20°C

CONSISTENCY: Good mortar
CONSISTENCY LIFE: 10 minutes

DENSITY: 2120kg/m³

MINIMUM COMPRESSIVE STRENGTH:

1 hr	2 hrs	1	7	28	Days
5	10	20	40	60	N/mm ²

YIELD 25kg powder yields 13.25 litres of good mortar. 1m³ of good mortar requires 1.900 tonnes of powder

TECHNICAL INFORMATION

Should you have any queries, or require further information, please contact our Technical Sales Team:

CONTACT DETAILS

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Revised January 2025