

TECHNICAL DATA SHEET

MICRO CONCRETE

Pumpable micro concrete for special applications

DESCRIPTION

Rockbond Micro Concrete (RB 1.06) is specially formulated, pre-mixed cementitious high strength micro concrete. The powder 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 concrete which hardens to give a high strength product. This product is widely used in applications where a pourable/pumpable structural concrete is required. It is also the ideal product for the repair of horizontal concrete surfaces (e.g. floors, pavements etc)





SPECIAL PROPERTIES

- Quickly and easily mixed, pumped and placed.
- Fluid flow consistency promotes penetration into confined spaces, and onto damaged concrete substrates.
- The concrete will not segregate or bleed and is readily pumpable.
- Excellent mechanical strengths and good bond strengths.
- Resistant to static, dynamic and vibrational stresses.
- Shrinkage compensated, low alkali cements, equivalent Na2O below 3kg/m3.
- Incorporates unreactive graded sands safe from ASF (alkali Silica Reaction) attack.
- Contains no chlorides, ferrous metal or other deleterious substances.
- Marine - Grade Concrete - Class C.
- Economical, non-toxic, user friendly and safe to use.
- Maximum aggregate size 3.5mm, which allows it to be pumped through standard screw grout pumps.

USES

- Concrete repairs to reinforced concrete structures.
- Load bearing and structural applications.
- Repair and protection of concrete in marine environments.
- Water Reservoirs and Treatment Plants.
- Motorway bridges, viaducts and carriageway repairs.
- To repair concrete floors, car parks, pathways, loading bays, roadways and motorways.

MIXING INSTRUCTIONS

Rockbond Micro Concrete (RB 1.06) is mixed with water using a suitable container, a pneumatic or electric power tool (1 kW), and a ribbon mixer. Larger amounts of material may be mixed using a forced action paddle mixer.

- Add 3 litres of water to the container or mixer.
- Pour 25kg of the concrete 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 2 minutes to ensure product is completely settled.
- The concrete is now ready to use.

Smaller quantities of the concrete can be prepared by adding the concrete powder to a quantity of water in stages and mixing to give the required consistency.

All preparatory work must be complete before the concrete is mixed. Ensure that all surfaces with which the concrete comes into contact are clean and dust-free. A strong concrete substrate free of all friable material will enhance a good bond.

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 that enough concrete is mixed and available so that the operation can be performed in one continuous pour. After concreting has been completed, or when the shutters are removed, any exposed concrete must be cured immediately with Rockbond Membrane cure (RB 7.11) at the rate of 8m2/litre. During adverse weather conditions, such as high temperatures and drying winds, repeat the procedure after the first application is dry.

PACKAGING

The product is packaged in 25kg bags and has a shelf life of 2 years.

HEALTH AND SAFETY

RB 1.06 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

Water/ Powder Ratio	12%	14%	
Consistency	Pumpable	Very Fluid	
Consistency Life	30 Minutes	45 Minutes	
Minimum Compressive Strength @20°C Note: Lower ambient temperatures will affect the speed of strength development	Days	MPa	MPa
	1	25	15
	7	70	45
	28	85	60
Shrinkage Compensated			
Yield per 25kg	12.0 Litres	12.5 Litres	
Amount of powder required to produce 1m³	2 tonnes (84 x 25kg)	2 tonnes (80 x 25kg)	
Electrical Resistivity	33.6 kΩ.cm		

TECHNICAL INFORMATION

Should you have any queries, or require further information, please contact our Technical Sales Team: +64 4 568 5401