

TECHNICAL DATA SHEET

PUMPING GROUT

Thixotropic pumping grout for special applications

DESCRIPTION

Rockbond Pumping Grout is a powder is a premixed blend of fine cement powders, compatible admixtures and thixotropic agents. The powder, when mixed with water and pumped under pressure, is particularly flowing and penetrating. When the pressure is released, the grout will not readily slump or flow, but will become stiff, stay in place and gain strength. The material is specially formulated for the filling and sealing of cracks and thin section voids in concrete, rock, brick and masonry. Rockbond Pumping Grout Accelerated contains chloride free accelerators, and is used during winter weather work, or when a rapid early strength gain is required at 20°C. The grout powders are packaged in 25kg moisture proof durable sacks and have a shelf life of 5 years.

SPECIAL PROPERTIES

- All in the bag, premixed and ready to use.
- Portland cement based, polymer modified and microsilica enhanced.
- Easily mixed, pumped and placed.
- Cohesive, extremely stable at high pressures, and will not segregate or bleed.
- Washout resistant and thixotropic: the grout will not run away.
- Excellent penetration into voids, joints, gaps, cracks and fine fissures.
- The grout is expansive, and will completely fill voids, cracks and cavities.
- Impermeable, waterproof, durable and resistant to chemical attack.
- High yielding, economical, non flammable, non toxic, odour free, user friendly and safe to use.

USES

- General pumping and thixotropic grouting applications.
- To penetrate, fill and seal cracks in concrete, rock, brick, block and masonry.
- Underpinning and stabilizing of foundations, gravels, loose floor and road slabs.
- To fill and seal voids in rubble filled brick and stone walls.
- To grout up and fill voids behind shafts and tunnel linings.
- To check and control the ingress of ground water through porous structures.
- To penetrate and seal joints, cracks and crevices in brick arches and soffit concrete.
- Vertical and soffit fixings into concrete, brick and masonry.
- Underwater applications, waterlogged foundations, around culverts, pipes and sewers.

MIXING INSTRUCTIONS

Rockbond Pumping Grout (RB 5.03) powder is mixed with water using a Concrete Stirrer, a pneumatic or electric power tool (1kW) and a 25 litre container. Use a pan mixer to mix larger amounts of material.

- Add 12.50 litres of water to the container or mixer.
- Pour 25kg of the powder onto the water while mixing.
- After all the powder has been added, mix for 30 seconds.
- The Pumping Grout is now ready for use.

Rockbond Pumping Grout accelerated (RB 5.03) is mixed with water at 40% water content: 10 litres of water per 25kg bag. Alternatively, small amounts of the material can be prepared by slowly adding the powder to a quantity of water and mixing to the appropriate consistency.

HEALTH AND SAFETY

Rockbond Pumping Grout and Rockbond Pumping Accelerated Grout 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.

APPLICATION PROCEDURE

Generally, the equipment necessary for grout injection should consist of a mixer, grout pump, a reservoir with an agitator for the mixed grout, and a length of pipeline. The equipment should be set up as near to the injection point as possible. The mixing and pumping procedure should be initially carried out using water to lubricate the equipment and check for leaks. Frictional resistance to grout flow should be kept to a minimum by using a wide bore pipeline, and reducing the length of line.

For the filling and sealing of cracks and voids in porous brick, concrete or fissures in rock, grout injection points should be located at the appropriate centres. Where possible, position injection points so they tap into interconnected cracks and voids.

When grouting into vertical faces, grout injection points should be located at the base of the structure where possible, and outlet points situated at the very top. Injection tubes should be installed and fixed fast into the concrete by using Rockbond Fast Rock Accelerated Mortar. Mix Rockbond Pumping Grout powder with water to the required consistency. If the conditions require a stiff gel, mix the powder with water at 35% water content, which is 8.75 litres of water per 25kg bag.

Sufficient quantities of grout should be mixed to enable the pumping operation to be carried out in one operation. Monitor the pressure at the injection point. An increase in grout pressure should be steady: a sharp rise in pressure indicates the void is full and injection should be continued at the next centre. Use Rockbond Waterstop Mortar to immediately plug, stop and seal the flow of grout.

For winter weather work, low temperature applications at below 5°C approximately, or when a rapid early strength gain is required, use Rockbond Pumping Grout Accelerated.

TECHNICAL DATA

TYPICAL DATA for PUMPING GROUT at 50% water/powder ratio at 20°C

CONSISTENCY:	Thixotropic grout
CONSISTENCY LIFE:	30 minutes
DENSITY:	1700 kg/m ³
MINIMUM COMPRESSIVE STRENGTH:	
Days:	1 7 28
MPa:	12 30 40

YIELD: 25kg of powder yields 21.00 litres of Pumping Grout
1m³ of Pumping Grout requires 1.200 tonnes of powder

TYPICAL DATA for PUMPING GROUT ACCELERATED at 40% water/powder ratio at 20°C

CONSISTENCY:	Thixotropic grout
CONSISTENCY LIFE:	30 minutes
DENSITY:	1800 kg/m ³
MINIMUM COMPRESSIVE STRENGTH:	
Days:	1 7 28
MPa:	15 40 50

YIELD: 25kg of powder yields 18.75 litres of Pumping Grout
1m³ of Pumping Grout requires 1.325 tonnes of powder

TECHNICAL INFORMATION

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

ONLINE SUPPORT www.rockbond.co.nz | **FREEPHONE** 0800 76 25 26 | **EMAIL** sales@rockbond.co.nz

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