

ROCKBOND SCP LTD

FORMULATORS, MANUFACTURERS AND CONSULTANTS OF SPECIAL CONCRETE PRODUCTS

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ROCKBOND PUMPING GROUT

DESCRIPTION:

ROCKBOND PUMPING GROUT (RB PG) powder is a premixed blend of fine cement powders, compatible admixtures and thixotropic agents. The compound contains no sand, aggregate or fibre which can restrict the flow and penetration of the mix into closely confined spaces. 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 gel, become stiff, stay in place and then gain strength. The material is specially formulated for the filling and sealing of cracks and thin section voids in concrete, masonry, rock, stone and brick. ROCKBOND PUMPING GROUT ACCELERATED (RB PGA) 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, dry mixed and ready to use.
- * Portland cement based, polymer modified, microsilica enhanced and shrinkage compensated
- * Easily mixed, poured, 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, will completely fill holes, cracks, cavities and will expand in the void
- * Impermeable, waterproof, durable and resistant to chemical attack.
- * High yielding, economical, non flammable, non toxic, odour free, user friendly and safe to use.
- * Long lasting shelf life of 5 years or more when bags are stored in a cool, dry and dark place

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 powder is mixed with water using a ROCKBOND CONCRETE STIRRER (RB CS), an electric power tool (1kW) and a ROCKBOND 25 LITRE MIXING CONTAINER (RB 25LMC). Use a ROCKBOND FORCED ACTION PAN MIXER (RB FAPM) 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 (RB PG), MIXING INSTRUCTIONS CONTINUED...

ROCKBOND PUMPING GROUT ACCELERATED (RB PGA) 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 in a suitable container and mixing to give the appropriate consistency, not too stiff or too wet.

Use minimal water, and mix to obtain the correct consistency/flow of the product for the job in hand. Do not over water the mix.

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 FASTROCK ACCELERATED MORTAR (FRAM).

Mix ROCKBOND PUMPING GROUT powder with water to the required consistency. If the conditions require a stiff gel, mix the powder 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 (RB WS) 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 (RB PGA).

For the fast grouting, pointing and the sealing of voids and cracks in concrete and stone underwater and at low temperatures, use Rockbond Pumping Grout Accelerated Underwater (RB PGA UW)

TECHNICAL DATA:

ROCKBOND PUMPING GROUT

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

CONSISTENCY: Thixotropic grout
CONSISTENCY LIFE: 30 minutes

DENSITY: 1700kg/m³

MINIMUM COMPRESSIVE STRENGTH:

1	7	28	Days
12	30	40	MPa

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

ROCKBOND PUMPING GROUT (RB PG),

TECHNICAL DATA CONTINUED...

ROCKBOND PUMPING GROUT ACCELERATED (RB PGA)

TYPICAL DATA at 40% water/powder ratio at 20°C

CONSISTENCY: Thixotropic grout
CONSISTENCY LIFE: 30 minutes

DENSITY: 1800kg/m³

MINIMUM COMPRESSIVE STRENGTH:

1	7	28	Days
15	40	50	MPa

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

HEALTH, SAFETY AND STORAGE:

ROCKBOND PUMPING GROUT and ROCKBOND PUMPING GROUT ACCELERATED 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:

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