

TECHNICAL DATA SHEET

PUMPING GROUT HF

Highflow Pumping Grout for Special Applications

DESCRIPTION

Rockbond Pumping Grout HF (RB 5.03HF) is a premixed blend of fine cement powders, specialist admixtures and a shrinkage compensating additive. The powder, when mixed with water and pumped under pressure, is particularly flowing and penetrating. RB 5.03HF is specially formulated for the filling and sealing of voids in concrete and rock, and can be pumped over large distances. Rockbond Pumping Grout HF Accelerated contains chloride free accelerators, and is used during winter weather work, or when a rapid early strength gain is required at 20°C.





SPECIAL PROPERTIES

- All in the bag, premixed and ready to use
- Portland cement based
- Easily mixed, pumped and placed
- Cohesive, extremely stable at high pressures, and will not segregate or bleed.
- Excellent penetration into voids, joints, gaps, cracks and fine fissures.
- The grout is non-shrink, and will completely fill voids, cracks and cavities.
- Very low permeability, durable and high resistance to chemical attack.
- Standard application thickness range: 2mm - 70mm
- High yielding, economical, non-flammable, non-toxic, odour free, user friendly and safe to use.

USES

- General grout pumping/void filling applications.
- To fill voids in concrete & rock.
- Grouting of ground anchors and rock bolts.
- Underpinning and stabilising of foundations, floors, road slabs, and dam spillways.
- 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.
- For general void filling applications, e.g. dormant sewer pipes.

MIXING INSTRUCTIONS

Rockbond Pumping Grout HF (RB 5.03HF) powder is mixed with water using a Concrete Stirrer, a pneumatic or electric power tool (1kW) and a 20 litre container. Use a pan mixer to mix larger amounts of material.

- Add 6 litres of water to the container or mixer.
- Pour 20kg of the powder into the water while mixing.
- After all the powder has been added, mix for 1-2 minutes.
- The Pumping Grout is now ready for use.

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.

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. Pumping Grout HF can be pumped reasonable distances if required (e.g. 80m).

For the filling and sealing of cracks and voids in 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 HF with water to the required consistency. If the conditions require a stiff mix, the water content can be lowered until the grout is at desired viscosity. 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 HF Accelerated.

HEALTH AND SAFETY

Rockbond Pumping Grout HF is 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.

TECHNICAL DATA

TYPICAL DATA for PUMPING GROUT HF at 30% water/ powder ratio at 20°C

CONSISTENCY:	Fluid Grout
CONSISTENCY LIFE:	30 minutes
DENSITY:	1540 kg/m ³
THERMAL CONDUCTIVITY:	1.12 W/mK (wet cure)

MINIMUM COMPRESSIVE STRENGTH:

Days:	1	7	28
MPa:	20	55	70

YIELD: 20kg of powder yields 13 litres of Pumping Grout HF. 1m³ of Pumping Grout HF requires 1.54T of powder.

TECHNICAL INFORMATION

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