

# GREENSEAL INJECTION GROUT

## CEMENT BASED INJECTION GROUT

### DESCRIPTION

Greenseal Injection Grout is specially formulated for grouting in structural cracks and honeycomb concrete. It is cement based compound supplied in powder form and formulated from Portland cement, fine quartz sand, active chemicals and retarding agent which will not saponify under wet and alkaline conditions.

The chemical of Greenseal are capable of exchanging atom group with the nearby molecules in a similar way to ion exchange used in water softener and can in this way penetrate through the capillaries deep into the substrate and here they react as described above with the calcium oxides and hydroxides also popularly called 'Free Lime'

Structural cracks of concrete due to movement, which have settled since can also, be grouted with Greenseal injection grout. Cracks of 1/8 inches and above on wall that are leaking can also be grouted using the Greenseal Injection grout.

Greenseal Injection Grout is a high strength grout specially formulated for grouting purposes. Due to its non-shrink properties it will not shrink when grouted into the pores and capillaries of concrete.

Greenseal Injection Grout is specially good for bonding physically and chemically in the capillaries of this cracks and honeycombs in the concrete where it also expand and seals them.

Further to this, there are chemical in the grout that will actually crystallize inside these pores and capillaries, thus making this area waterproofed. The Greenseal injection grout has good flow and will actually flow into the crevices wherever it has been grouted. This will ensure that all crevices and fine cracks are all sealed and water proofed.

### USES

Flexible cementitious waterproofer suitable for:

- Structural Cracks
- Honeycomb
- Angle Fillet
- Grouting for leakage area
- Expansion & construction joints

### ADVANTAGES

- Seal cracks.
- High Strength Grout
- Crystallize inside the capillaries
- Good Bonding
- Waterproofing

### PRODUCT PROPERTIES

| Mix Designs                                   |                   | Flowable Water content<br>4.4 litre/25 kg |
|---|-------------------|---|
| <b>Test (at temperatures)</b>                 | ° C               | 30° C                                     |
| <b>Flow</b> BS cone<br>J Cone                 | mm<br>seconds     | 310<br>13                                 |
| <b>Initial Setting Time</b>                   | hr:min            | 3.00                                      |
| <b>Bleeding at 24 hrs</b>                     | %                 | 0   |
| <b>Expansion at 24 hrs</b>                    | %                 | 0.60                                      |
| <b>Compressive Strength</b> 7 days<br>28 days | N/mm <sup>2</sup> | 4.9<br>54.8                               |
| <b>Flexural Strength</b> 7 days<br>28 days    | N/mm <sup>2</sup> | 5.4<br>7.3                                |

## GREENSEAL INJECTION GROUT

### APPLICATION INSTRUCTIONS

#### Grouting Application Procedures shall be:

1. Mix Greenseal Injection grout with water in volume ratio of 1 parts Greenseal injection grout to 1.5 part of water. When mixing Greenseal Injection Grout, it should be mixed in a pail not more than 20 liters at a time, using clean water.
2. When mixing Greenseal Injection Grout, it should be mixed with a slow drill or using a clean rod to mix it thoroughly. The mixing shall be done slowly if it is done by drill or by hand using a rod to ensure that Greenseal Injection Grout is thoroughly mixed. After the mixing is done, ensure that there are no lumps in the mixture. Then the material is ready for grouting purposes.
3. Hack along the leakage point to 2 inches depth into the construction joint, and put in place a grout pipe using Greenseal Flash Set (quick set) compound. After that apply 1 coat of Greenseal 200 around the pipe area.
4. Put the suction pipes of the grout pump into the pail of mixed Greenseal Injection Grout and connect the grout pipe to a diaphragm pump.
5. The grouting process can begin by pumping Greenseal Injection Grout under a low pressure until the grout comes out at the back of the wall at the shower area.
6. Along the butt-joints of the wall, patch with Greenseal Flash Set (quick set) compound vertically and horizontally to prevent the grout from oozing out.
7. Put in place the 8mm in diameter copper grout pipes on top of the marble wall at 300mm intervals using Greenseal Flash Set (quick set).
8. Put the suction pipes of the grout pump into the pail of mixed Greenseal Injection Grout and start the grouting process.
9. Connect the grout pipe to a diaphragm pump and pump Greenseal Injection Grout under a low pressure through the pipe into the back of the marble wall. Repeat the grouting procedures at 300mm intervals along the top of the marble wall until the wall is filled with Greenseal Injection Grout, filling all hollowness behind it.
10. After one day, a test to be carried out to check if any water may leak through to the other side by showering the shower wall area.
11. On completion of the work, remove the grout pipe at the 3 pin plug and place back the 3 pin plug. Remove the grout pipes along the top of the marble wall in the shower area. And finally remove the Greenseal Flash Set (quick set) patched along the butt-joint by scraping it off. The tile grout along the marble butt joint shall be done by the Main-Contractor.

#### Angle Fillet

- All junctions between the slabs and walls, do an angle fillet of 25mm X 25mm with Greenseal Injection Grout.

#### Outlet and Pipe Penetration

- Hack a V groove joint with a depth of 25mm surrounding the outlets and pipes.
- Wash thoroughly the hacked areas to expose the clean concrete surfaces between the outlet pipe and the concrete.
- Mix 3 parts of Greenseal Injection Grout to 1 part water thoroughly to a mortar consistency and apply with a trowel into the hacked V groove and level it to the concrete level.

### COVERAGE

Estimation Guide To Quantities

| <u>Angle Fillet (mm)</u> | <u>KG / Meter Run</u> |
|--------------------------|-----------------------|
| 25 x 25                  | 1.4 kg                |

### CLEANING EQUIPMENT

Clean tools and equipments immediately with clean water before the waterproofing material sets in. Hardened material can only be removed mechanically.

### STORAGE AND SHELF LIFE

Greenseal Injection Grout has a shelf life of 24 months. Store the material in a cool dry place.

### POT LIFE

After mixing of Greenseal Injection Grout, it has to be used within 1 hour time.

### PACKAGING AND APPEARANCE

Greenseal Injection Grout is packed in 25 kg per bag

### HEALTH, SAFETY AND CLEANING

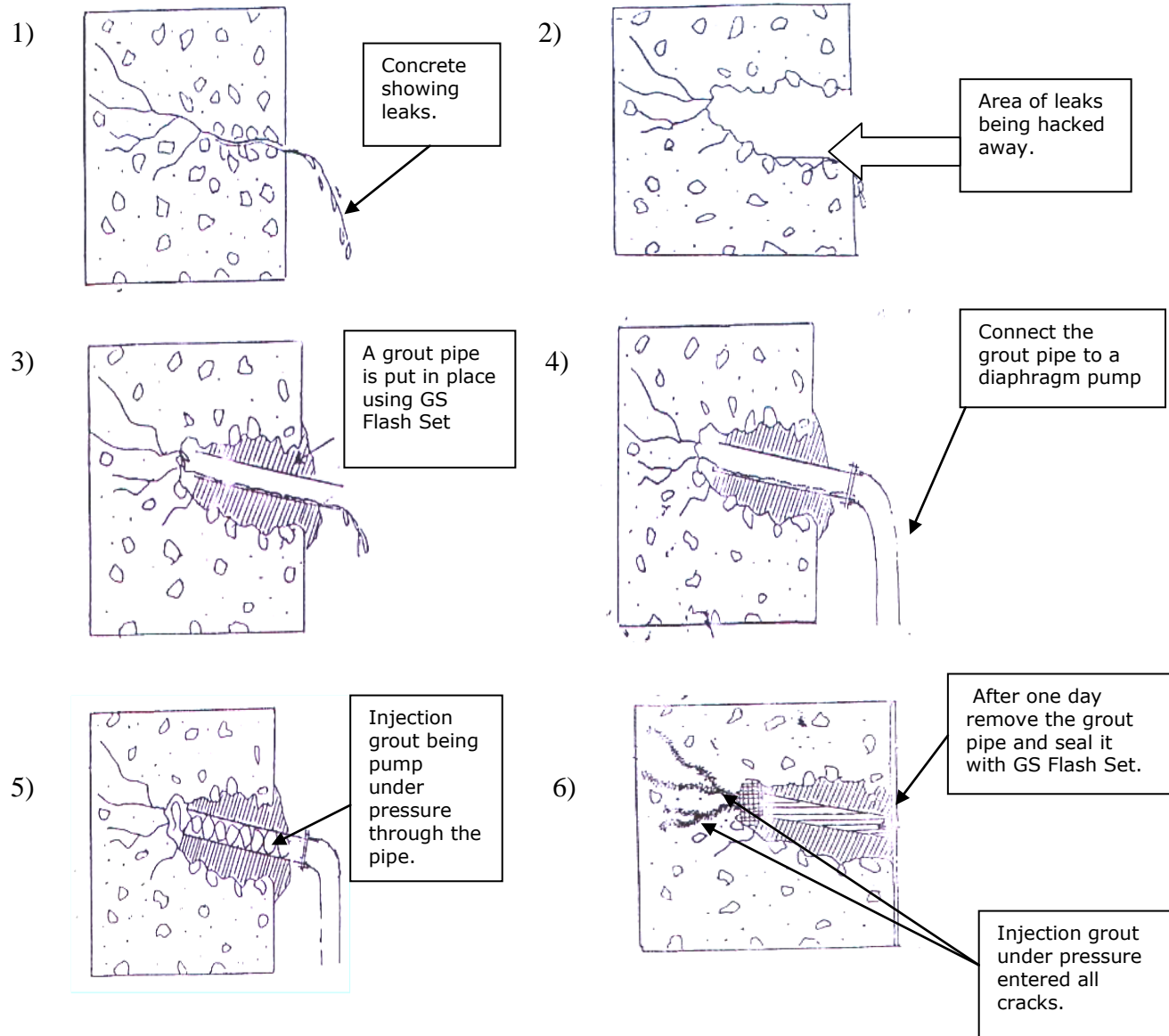
Greenseal Injection Grout contains cements which may causeskin irritation. For precaution, protective gloves and goggles are recommended to be worn when handling ofthis product. Always allow air to ventilate in the basement or in an enclosed area. If ingested, do not induce vomiting but seek medical attention. In case of eye contact, rinse thoroughly with abundant water. If case of skin contact, wash affected areas with soap andwater. Change to clean clothes and shoes. Wash contaminated clothes/ shoes thoroughly before reuse.

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### APPLICATION

Put the suction pipes of the grout pump into the pail of mixed Greenseal Injection grout and start the grouting process. Greenseal injection grout is especially good for structural cracks and column as shown in the diagram below:

### PRESSURE GROUT USING GREENSEAL INJECTION GROUT



## GREENSEAL INJECTION GROUT

### TECHNICAL PHOTO USING GREENSEAL INJECTION GROUT SYSTEM



#### Guarantee

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. GREENSEAL reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorized by us. Our guarantee covers exclusively the quality of the manufactured product. We will not accept any responsibility exceeding the value of the purchased product.

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Greenseal is certified by MS ISO 9001:2008 Quality Management System