



## HIND HYDRAFOAM PU (SC)

### PRODUCT DATA SHEET

**SINGLE COMPONENT, WATER REACTIVE, EXPANSIVE POLYURETHANE GROUT FOR STOPPING WATER FLOW INTO CONCRETE WALLS, SLABS, LEAKY CRACKS, HONEY COMB & CONSTRUCTION JOINTS**

#### DESCRIPTION

**Hind Hydrafoam PU (SC)** is a single component low viscous polyurethane based liquid with an unique property to react with water in a very controlled manner to form a swelling foam, which is solid in density and strength. When it is injected into leaky structures under pressure, it polymerizes to form a flexible and permanent water barrier stopping the water leakage instantly.

#### USES

**Hind Hydrafoam PU (SC)** is used for cracks in concrete to stop the flow of moving water by injection under pressure. It will provide an effective system for cracks sealing in wet conditions. It is a complete system for water cut off in concrete, masonry structures where strong leaks are encountered. The system only reacts when it comes into contact with water, providing semi-flexible polyurethane foam, thus providing permanent solutions to the leaking problems.

#### ADVANTAGES

- Reacts with water to produce water resistant foam to stop water ingress into concrete and masonry structure.
- Rapid instant action to produce water stop against moving water under pressure.
- It possesses an excellent adhesive property and develops a strong bond.
- It reacts with seawater, mineral water regardless to the temperature of the water.
- It is chemically stable and non-degradable.

#### DESIGN CRITERIA

Semi- flexible Polyurethane is designed to stop the movement of water in cracked concrete. Crack widths of between 0.1 mm and 5 mm can be treated depending on the water flow. **Hind Hydrafoam PU (SC)** is designed as a solution to water ingress or movement to structure as per the direction of use, given by the manufacturer to make homogeneous grout for stopping the water flow. When it comes in contact with water, due to hydrophobic reaction it forms a chemically resistant semi flexible polyurethane foam.

#### PROPERTIES

The following properties were obtained at temperature of 25<sup>0</sup> C unless otherwise specified.

Aspect	Pale yellow Liquid
Specific gravity	It ranges from 1.06 to 1.10
Viscosity at 25 <sup>0</sup> C (cps)	500-1300 cps
Corrosiveness	Non-corrosive
Odour	Faint Characteristics
Flash point	Non-Inflamable
Toxicity	Non-Toxic

### **Application instructions**

**Hind Hydrafoam PU (SC)** can be applied using low pressure hand –operated pumps through packers fixed into holes drilled directly into the crack or drilled diagonally from concrete adjacent to the crack or by the fixing of injection nipples bonded to two surface using Hind Proof No.3 admixed with cement. On wide cracks and where there is a large flow of water the use of Hind Plug S, rapid setting cement based, water stopping mortar, should be considered for initial control of water.

### **Preparation**

If water flow permits, clean the surface adjacent to the cracks and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae. The surface should preferably be prepared using high pressure water jetting or light abrasive blasting, followed by thorough washing to remove dust and remaining particles. Dirt alone may be removed with wire brushes or similar mechanical means.

### **Fixing injection packers**

The injection packers inserted into pre-drilled holes shall be fixed at intervals along the length of each crack. The distance between each packer will depend upon the width and depth of the crack. Spacing shall be close enough to ensure that the resin will penetrate along the crack to the next point of injection. This will normally be between 200 mm to 500mm.

Where practically the surface of the cracks between the packers shall be sealed with a band of polymer mortar, 30 to 40 mm wide and 2 to 3 mm thick. Both sides of any cracks which go all the way through a wall or slab shall be sealed this way. Please note where water flow is severe the polymer mortar application can be omitted.

In the case of a wall or slab which is cracked all the way through, packers shall be located on both sides with those at the back placed at midway points between those at the front. Where application, the polymer mortar shall be allowed to cure for 8 hours at 35<sup>0</sup>C. At low ambient temperatures (5 <sup>0</sup>C To 12 <sup>0</sup>C) the curing time will be extended and the applicator shall ensure that the surface sealant has adequately cured prior to continuing.

One end of the injection hose shall be attached to the lowest packer on vertical cracks or to either end of horizontal cracks. Each crack shall be treated in a single, continuous operation.

### **Restoring**

Remove the packers or nipples. Sealing of any holes or voids to be done with **Hind Plug S** and allowed to cure.

### **Cleaning**

**Hind Hydrafoam PU(SC)** and polymer mortar should be removed from tools, equipment and mixers with solvent immediately after use. Hardened material can only be removed mechanically.

### **SHELF LIFE**

6 months from the date of manufacture stored at 25<sup>0</sup>C , if stored in a dry place in unopened containers away from heat and direct sunlight.

### **PACKING**

**Hind Hydrafoam PU (SC)** is supplied in **20 Kg, HDPE Container**

### **HANDLING PRECAUTIONS**

**Hind Hydrafoam PU(SC)** contains isocyanate which may cause sensitization by inhalation. During use avoid contact with skin and eyes and inhalation of vapour. Wear suitable protective clothing, gloves and eye/face protection.

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**Note:**

- **Hindcon Chemicals** maintains a team of technically trained professionals to provide full support to your problems in construction, and recommend the correct product to suite your specific requirements. Our authorized applicators can attend your site for application of the products.
  - The content of the Technical datasheet are for general information and guideline. The result shown here are generated from our laboratory or from our site experiences.
  - Quality of our products are maintained as per ISO9001:2008 recommendations and continuous researches. The behavior can change as per the prevailing conditions at the time of applications.
  - Since **HINDCON CHEMICALS LIMITED** has no control over the use to which the users may put the material, it does not claim or warrant that in the user's particular circumstances, the result that the user will obtain from the product will be the same as those described in this communication or that the user will find the information or recommendations complete, accurate or useful. The client must test and ascertain the safety and fitness for the product for use.
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