



## *Hydrafoam PU*

### *Polyurethane Foam Injection*

#### **Description**

Hydrafoam PU is a hydrophobic polyurethane grout designed to stop water leaks. It is typically injected into cracks in concrete, honeycombed concrete, soils, pipes, pipe intrusions and other voids by use of a high pressure pump. When the liquid polyurethane meets water or moisture it reacts with it and then expands, creating a dense, closed cell foam through which water will not pass. In an unconfined environment the expansion rate of the material is 20 times its own volume.

#### **Object**

Hydrafoam PU is typically used to stop water leaks coming through cracked or honey-combed concrete voids between wall and floor, wall and ceiling, expansion joints, cold joints and pipe intrusions. It is used to repair concrete walls, ceilings and floors that are leaking; in tunnels, including limestone, manholes, sewer lines and in concrete dams

#### **Advantage**

- As an injection resin for sealing water carrying cracks in buildings and other structures.
- It can be applied using suitable high or low pressure injection packers (available from ACT).
- The product has very low viscosity and very good injection results are obtained.
- The expansion rate of the material is 20 times its own volume.

#### **Instruction for Use**

- Preparation : when repairing cracked concrete, 14 mm. diameter holes are drilled at a 45 degree angle to intercept the crack at approximately 1/2 its depth. However, in extremely thick concrete interception holes usually need not go deeper than 300 mm. into the drilled holes. 14 mm. (O.D.) injection ports (packers) with grease fitting are inserted and tightened.
- Application : Mix base polyurethane resin (Part A) with catalyst (Part B) Catalyst using the typical formula of 5% of PU resin. However, the amount of accelerator may be increased or decreased as needed based on job site conditions.
- Pump Hydrafoam PU through the injection port until evidence of material begins to show on the surface of the concrete. Wait for the material to rise up the crack and to set. Drill another hole at the point where material quit rising, insert port and repeat.
- After initial pumping of all ports go back and pump more material into each one, This may be repeated a third time to be certain the entire crack has been treated. Actively leaking cracks are easier to repair due to the visual evidence of water infiltration stopping.

- In dry cracks, water may be introduced through the drilled holes by using a water gun or pourty baster to hasten reaction of the polyurethane. However, there will be enough moisture in the concrete to eventually cause a full cure.
- Ensure sufficient material is available to complete the work and obtain a continuous fill. Pour from one side only to avoid air entrapment. Keep a head on the grout to promote flow. Use cable or chain to make sure that all cavities are filled, When grouting areas of more than 3” in depth, add up to 25% by weight washed pea gravel that is 3/8” or less in size Curing. After the grout has acquired its initial set cure by keeping exposed surfaces moist for at least 48 hours.

### **Characteristics**

Appearance:	Yellowish
Bulk density:	1.1 kg/l.
Viscosity :	500 cps
Solid :	100%

### **Packing**

20 L., 200 L.

### **Storage**

Hydrafoam PU must be stored in air tight containers. Contact with atmospheric moisture causes a reaction which results first in an increase in viscosity and then in gelling. Storage at high temperatures also results in an increase in viscosity. For this reason, Hydrafoam PU should be stored in a cool place. At temperatures below 0 ° C some of the product may crystallize. However, it can be rectified by careful heating. When stored under the proper conditions in its sealed original containers, Hydrafoam PU will remain stable for at least 6 months.

### **Precaution**

The polyurethane exerts outward pressure of 5 PSI. and can lift a concrete floor. Relief holes should be drilled at appropriate intervals to prevent this from happening.

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