Single Component rapid setting polyurethane grout

**PRODUCT DESCRIPTION:** Fibgrout PU 1K is a pre-blended CFC free polyurethane polyol for (1K) one-component grouting rigid open cell foams. The foam has a good compaction with excellent dimensional stability. The system gives out a foam with a fine rigid cell structure and good inter-laminar adhesion with relatively low densities. The system uses SIPANETM as our in-house developed eco-friendly blowing agent. The polyol needs to be used with the recommended activator in the ratio of 10:1, i.e., 10% parts by weight.

#### **AREAS OF APPLICATION**

- Defective concrete (cracked or honeycombed)
- Concrete joints, Limestone, Brick construction
- Pipe intrusions, Waste water tanks
- Tunnels, Dams, Subway (Metro), Sewers, Manholes, Utility boxes, etc.
- Soil stabilization
- Sealing against water ingress, leaking cracks, joints, water in masonry, brickwork etc.

#### **ADVANTAGE**

- Negative side application possible
- Deep penetration into very small cracks
- Foam increases in volume to fill cavities and voids
- Excellent bond to surfaces
- Good adhesive strength, tolerant of movement
- Inert after curing, constant volume, no shrinkage
- Dose not create new cracks
- Can withstand high hydrostatic pressures

## **APPLICATION**

## **SURFACE PREPARATION**

Substrate surface must be firm, offer good traction, free from loose particles, dust, dirt, additionally free of oil, grease and other impurities which can adversely affect uniform adhesion.

#### **MIXING**

The polyol needs to be used with the recommended activator in the ratio of 10:1, i.e., 10% parts by weight.

### **APPLYING AND LAYING**

The material should be applied to the prepared surface using Pump that is equipped for high pressure. The mix material react with the water in the structure and foam. The surface is sealed/patched properly to prevent from coming out. Fibgrout PU 1k reacts with water and expands to form a 'fluid wedge' & blocks the leakage. Even gushing leakages can be sealed without it being necessary to block the hydraulic pressure. Due to the low viscosity and expansion during reaction even the smallest cracks, fissures and pores can be impregnated. Since the chemical reaction is very quick the results are immediately visible.

When water is not naturally present in sufficient quantity to assure the desired reaction, a sufficient quantity of water is also required to be injected.

**Product # 114.82** 

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#### **CLEAN UP**

Clean all tools immediately after use with Fibrex Paint Remover. Do not allow material to harden.

### **TECHNICAL SPECIFICATIONS**

Properties	Value
Polyol Specifications	
Physical State	Liquid
Color	Clear Yellow
Specific Gravity	1.20-1.25 (25°C)
Viscosity	250-500 cps (25°C)
Activator Specifications	
Physical State	Liquid Type
Color	Clear Pale Yellow
Specific Gravity	1.10-1.20 (25°C
Viscosity	250-500 cps (25°C)
Typical Reaction Characteristics	
Ideal Operated	25°C
Temperature	
Mixing Ratio (Polyol:	100:10 (PBW)
Activator)	
Cream Time	5-10 sec
Gel Time	40-50 sec
End of Rise Time	60-70 sec
Tack Free Time	70-80 sec
Water Level Threshold	10 %
Foam Properties	
Free Rise Density	16±2 kg/m³
Overall Density	32 ±2 kg/m <sup>3</sup>
Expansion Ratio	>50 Times
Curing Time	5 Min max
Dimensional Stability	1 % max
Fire Retardancy (PIR)	B3 (DIN 4102) (Class)

The above reaction characteristics are achieved in the laboratory tests at 21°C via hand mixing with a mechanical stirrer at 3000 rpm. The overall applied density may also vary depending upon processing conditions, including ambient and substrate temperatures, mixing speed and time, water exposure levels, etc.



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#### **PACKAGING**

Fibgrout PU 1K with activator is packed in small pack 11 kg and big pack 22 kg.

#### **STORAGE**

The product must be stored out of direct sunlight, weather, and direct external fire sources. The containers must always be kept sealed against moisture. Ideal storage temperature is approximately 25°C or less. Under these conditions, the product will remain stable for 6 months.

## **PRECAUTIONS**

During mixing and application the following precautions should be observed: ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and busing, if necessary, a suitable barrier cream. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water (do not use solvents). Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction. Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

# **DISPOSAL / SPILLAGE**

Spillage of any of the component products should be absorbed onto sand or other inert material and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations.

#### **NOTE**

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

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#### **HEALTH AND SAFETY**

This material is intended to be used by trained professionals with proper equipment's. The following safety measures are recommended:

- Wear protective gloves, clothing, goggles, hearing protection for noise reduction and hard hats for falling debris.
- Do not eat, drink or smoke while in active contact with these materials.
- Avoid skin contact.
- Wash hands thoroughly with soap and cool water.
- Never wash the skin with a solvent.
- Anyone experiencing difficulty breathing when working with these materials or showing an allergic reaction should seek fresh air immediately and consult a physician if symptoms persist.

### **DISCLAIMER:**

Fibrex Construction Chemicals products though are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Fibrex Construction Chemicals wishes to clarify that any advice, recommendation, specification or information is accurate and correct, though it cannot, at any time assume any liability either directly or indirectly arising from the use of its products. This is because it has no direct or constant control over where or how its products are applied, and whether or not in accordance with the advice specification, recommendation or information given by it.

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