Dr. Fixit PU Foam Injection



SINGLE-COMPONENT PU FOAM INJECTION GROUT

Description

Dr. Fixit PU Foam Injection is single component hydrophobic polyurethane pre-polymer & accelerator composite system which only reacts in presence of moisture or water. Dr. Fixit PU foam injection expands more than 30 times under unrestrained volume which effectively arrest moderate water leakages and dampness.

Typical Application

- Reservoirs like water tank and waste water effluent tank.
- Underground structures like Basements, lift pits.
- Raft, metros, highways with high-pressure water leakages.

Features & Benefits

- Lower viscosity-lower mixed viscosity less than 350 cP helps to penetrate macro as well as micro cracks.
- Non Toxic Non harmful nature after cure, tested as per US FDA 175-300
- High expansion Expands more than 30 times after reaction with moisture or water & cures to flexible foam with open cell contents.
- Excellent Bonding Bonds strongly with dry & wet concrete and stones.
- Durability- It can withstand high hydrostatic pressure and provide structural strengthening by sealings cracks cavities.

Method of Application

1 MIXING

Empty components A and B which are provided according to the required mixing ratio of 10:1 (parts by volume) or measured out in separate containers by the user - completely into a mixing vessel and mix homogeneously.

Mixing	Mixed at 10:1 by Volume At 28C ±2°C
Cream time	< 20 Seconds
Rise time	< 30 Seconds
Tack free time	< 100 Seconds

Note:

• Before execution a small quantity of sample to be mixed to check foam time and foam quality at ambient temperature. If the ambient temperature is lower than 15°C, then ensure to maintain the temperature more than 30 Degree C to meet desire foaming time and foam quality.

2 APPLICATION-INJECTION PROCEDURE

- Dr. Fixit PU Foam Injection to be injected by means of a single component injection pump.
- Carry out the injection diagonal packers towards cracks at intervals so that it can be concluded from the reaction of the material with moisture inside and decide whether to continue or stop the injection process.
- The secondary crack injection recommended by using Dr. Fixit PU Plain injection through same packers and same holes withing 24 Hrs of primary grouting.
- Note: In case the secondary injection is carried out much later then it may be necessary to install new packers in different position

3 FINAL WORK

After the curing process of the injection resin (approximately 24 hours after the injection), remove the packers and close the drill holes with Dr. Fixit Polymer Mortar HB

4 FINISHING

Clean the equipments & tools thoroughly with solvent (toluene or xylene) at any time when work is interrupted for a longer period of time & immediately after use. The cured material can be soften by the solvent & removed by mechanical scrapping and pressure.



Precautions & Limitations

- Do not dilute Dr. Fixit PU Foam injection with water or solvent.
- If environmental condition is below 15°C so, ensure to condition minimum 3 hours Dr. Fixit PU Foam injection at more than 30°C.
- Materials should be stored in unexposed to direct sun light and moisture.
- Post completion of work, ensure to clean the equipment immediately with thinner or solvents.

Technical Information

PROPERTIES	SPECIFICATION	RESULTS
Appearance		Resin: Yellow to brown liquid Accelerator: Clear liquid
Density of mixed	ASTM S 1475	< 1.25 gm/cc
Viscosity of mixed	ASTM D 2196	< 350 cP
pH of Resin	IS 9103	8 ± 2
pH of Accelerator	IS 9103	10 ± 2
Expansion rate	Volumetric expansion	>30 times
Cream time		≤ 20 seconds
Rise time		≤ 30 seconds
Pot life (without mixing with water)		Max 30 min
Set time		≤ 5 Min
Bond strength	ASTM C 882	0.43 N/mm ²
Shore A hardness	ASTM D 2240	≥5
Shore 00 hardness	ASTM D 2240	≥50
Acute Toxicity by using Zebra Fish	IS 6582 (Part 2)	Non Toxic

^{*} Note: All technical properties are recorded at temperature $28^{\circ}\text{C} \pm 2^{\circ}\text{C}$

Packaging	5.5KG	22KG
Base	5.1KG	20KG
Hardener	0.4KG	2KG

Shelf Life

Shelf life is 24 months from the date of manufacturing. Store in a cool & dry place in unopened condition.

Health & Safety

- Wear protective clothings, safety shoes and gloves during the application of the material and when cleaning the equipments. Safety Goggles are a must for all personnel in area of application.
- The use of a suitable skin care cream is recommended. In case of contact with skin wash with soap and water.
- In case of contact with eyes rinse immediately with good volume of running fresh water and seek medical advice immediately. (**use of safety goggles is must).



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