

(29/06/21)

# CEMFOAM PU-MY

POLYURETHANE FOAM RESIN FOR STOPPING WATER FLOW INTO CONCRETE WALLS AND SLABS LEAKAGE CRACK, HONEY COMB AND CONSTRUCTION JOINTS

PRODUCT DATA SHEET

**CEMKRETE®**

ISO 9001 & 14000 CERTIFIED

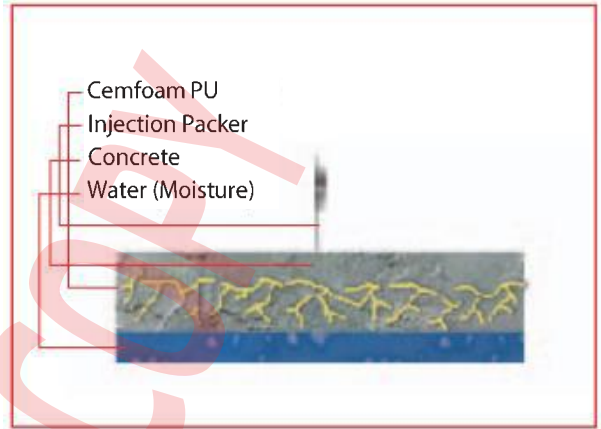
## DESCRIPTION

**Cemfoam PU** two-part liquid polyurethane is mixed in the proportions supplied and injected into the cracks in concrete. It reacts with moving water to form a foam barrier.

## USES

Cemfoam PU Injection is used for cracks in concrete to stop the flow of moving water. It will provide an effective system for crack 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 solution to the leaking problems.

It is an extremely thin liquid resin that reacts with Moisture when injected into the soil or sand forming a rock hard, water tight mass. It is used to stabilize loose soil and sand



## BENEFITS

- Reacts with water to produce water resistant foam to stop water ingress into the concretes and masonry structure,
- Rapid instant action to produce water stop against moving water under pressure
- Stop underground water flows
- Seal leaking sea walls.
- Tie back anchors.

## Technical Data :

Solid	100%
Pot Life	6-8 hours @ 20°C 3-4 hours @ 30°C
Density of foam	25 kg/m <sup>3</sup>
Specific gravity	1.14 ± 0.06
Viscosity	500cps at 25°C
Shelf life	6 months in original unopened container stored 20°C
Packaging	Cemfoam PU is supplied in 21kg per set (20kg resin and 1kg accelerator)

NOTE: Coverage figure given is theoretical. Due to wastage factors, the variety nature of the substrate, and the site application condition, etc., the practical coverage may be reduce.

The information given in this data sheet is to the best of our knowledge true and accurate; but as we have no control over where or how the product is applied, there are no warranties expressed or implied regarding the product's use or performance. Customers are advised to thoroughly test before adapting them to their own use. It is strongly recommended to trial on small area before large scale application.

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## DESIGN CRITERIA

Semi-Flexible polyurethane resin type 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 water flow. Cemfoam PU is designed as a solution to water ingress or movement in structures and must be used in conjunction with manufactures provided catalyst proportion to make homogenous grout for stopping the water flow, which becomes when contact with water form hydrophobic reaction and chemically resistant semi-flexible polyurethane foam. On certain injections it is advisable to give a second pass using varying the catalyst ratio from 5% to 10% to provide a flexible seal. The reaction time can be adjusted from 10 minutes to 30 seconds.

## 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 pint of injection. This will normally be between 200 mm to 500 mm. Where practical 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 not: 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 °C. At low ambient temperatures (5 °C to 12 °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. Sufficient material shall, therefore, be made ready prior to the commencement of the work.

## INSTRUCTION FOR APPLICATIONS

### 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.

Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser. The effectiveness of decontamination should then be assessed by a pull-off test.

Blow the cracks and treated surface with oil free air to ensure complete removal of all dust and loose particles.

### Application instructions

Cemfoam PU can be applied using either injection 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 Cemkcrete E119. On wide cracks and where there is a large flow of water the use of Cemplug, rapid setting cement based, water-stopping mortar, should be considered for initial control of water.

## STORAGE

All products have a shelf life of 6 months at 20 °C if kept in a dry storey in the original, unopened containers.

## STORAGE CONDITIONS

Store in dry conditions in the original unopened containers. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced to 2 to 3 months.

## RESTORING

Remove the packers or nipples. Apply any holes or voids with **Cemkcrete E119** or **Cemkroust GP** and allow to cure. Do not allow to burn.

## HEALTH & SAFETY

**Cemfoam PU** contains isocyanate which may cause sensitization by inhalation. During use avoid contact with skin and eyes and inhalation of vapor. Wear suitable protective clothing, gloves and eye/face protection.

Should accidental skin contact occur, remove immediately with a resin removing cream followed by soap and water. DO NOT use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately DO NOT induce vomiting. Use only in well ventilated areas. In cases of insufficient ventilation wear suitable respiratory protective clothing.

## CLEANING

**Cemfoam PU** and Polymer mortar should be removed from tools, equipment and mixers with solvent immediately after use. Hardened material can only be removed mechanically.

## FURTHER INFORMATION

CEMKRETE is the leading supplier of engineered construction products in Southeast Asia. Our full line of products includes industrial polymer floor and wall coatings, waterproofing, structural repair materials, and other specialty protective coatings. Your solution provider to solve any building needs.

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