

Estof foam PU

Two Component Semi-Rigid Polyurethane Foam Grout

Description

Concrete often cracks. It is inevitably recognized and experienced. Concrete construction requires joints. These joints cause very serious problems of water leakage.

Estof foam PU is a water-reactive grout specifically designed for injection into leaking concrete, masonry or brickworks to stop the flow of water. Commencement of the chemical reaction with water can be adjusted by the addition of a variable quantity of CATALYST.

Estof foam PU forms an excellent barrier against water seepage caused by hydroscopic pressure. It has good chemical resistance and it is non-toxic once set. By restraining the natural expansion created by this reaction, a strong closed-cell semi-rigid foam is formed, providing a permanent barrier to the ingress of water.

Uses

Estof foam PU is suitable and widely been used to seal water leakage, it is recommended for leakages at:-

- Basement Wall
- Brick Wall
- Sewage Structure
- Lift Pits, Sewer, etc.
- Concrete Slabs
- Water Tank
- Wet Areas
- Vibratory Structure

Advantages

- Penetrates into cracks <200 microns
- Excellent bond strength
- Resistant to biological attacks
- Solvent and TDI free
- Provides a totally water resistance barrier
- Non-toxic and can be in contact with portable water
- Unaffected by salts or contaminants in water.

Physical Properties

	Estof foam PU	Catalyst
Appearance	Light Brown	Translucent
Specific Gravity	1.1	1.02
Viscosity @ 25°C, cps	120	15
Flash Point, °C	>210	>150
Non Volatile matter, %	97	-
Compressive Strength, N/mm ²	6.0	-
Elongation in cured form,%	40	-

Catalyst Mixing Ratio

Dosage %	2	5	10
Cream Time, sec	88	56	46
Rise Time, sec	210	145	95

*The reaction time at 25°C varies the amount of catalyst added and 5% water existence

Application Instructions

Preparation

Sometimes the concrete surface is hidden under a surface of mineral deposits left from long-term water leakage. Hence it is important to inspect, check and measure the thickness, width and depth of the cracks, joints and leakage condition of the affected structure.

Drilling Injection Holes

In order to inject the resin into the crack, it is necessary to install injection ports, also called mechanical packers.

Drill 10mm/13mm/16mm diameter holes at 100 – 500mm interval along side of the crack or joints at 45° angle in order for the path of the cracks or joints to be intersected at the centre of the structure.

The depth of the drill hole should be somewhere close to the centre of structure, if possible.

Clean the drilled holes with compressed air.

Inserts Injection Packers

Place packers in the previously drilled hole, so that the top of the rubber sleeve is below the concrete surface. If the packer can't be pushed into the hole, tap it in tighten the packer with a wrench as tight as necessary.

Flush Crack If Necessary

In some circumstances, it can be very useful to flush the crack with water to improve the subsequent penetration of the **Estof foam PU** injection resin into thicker walls.

Crack Injection

Use a clean and dry bucket; pour in the **Estof foam PU** to the desired amount. Add the CATALYST gradually- average recommended at 5% (5:100).

Mix/ stir well. Increase the dosage if rapid curing is required.

Commence injection by using high pressure injection machine. The material must be visible during the initial set stage (yellowish expanding foam).

It is recommended that pressurised grouting is performed at the previously packer for multiple times to ensure that the **Estof foam PU** is completely compacted and no water leakage.

In the event of filling vertical cracks or joints, commence injection start from the bottom. In case of horizontal cracks or joints, begin from either side.

Allow the **Estof foam PU** to cure for 24 hours before removing the injected packer. Remove the exposed visible solidified grout remain on the crack section. Plug all holes with a suitable mortar.

190902

Cleaning

Flush and clean the injection machine and hose with solvent after used.

Packing & Size

Estofom PU	20 kg pail
	25 kg pail
	225 kg drum
Catalyst	1 kg pack
	5 kg pack
	25 kg pail

Technical Support

Denka offers a technical support package to specifiers, end-users and contractors, as well as on site technical assistance.

Storage

Estofom PU should be stored in cool dry areas. Temperature above 50°C may cause premature formation of insoluble solids. Good housekeeping is essential in area where chemical spillage is likely to occur.

Partly used pail should be tightly sealed to prevent ingress of moisture.

Precaution

Avoid contact with skin, eye and avoid breathing vapor. Wear gloves, goggles and full clothing when handling with raw materials. Keep away from children. Provide adequate ventilation in confined spaces. If skin contact occurs, remove **Estofom PU** with soap and water. DO NOT use solvent. Should poisoning occur, consult a physician in all cases. SDS shall available upon request.

Additional Information

Denka manufactures offers a wide range of complementary products, which includes waterstops, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available.



Denka Construction Solutions Malaysia Sdn Bhd

(591658-U)

No. 18, Jalan Utas 15/7, Seksyen 15,
40200 Shah Alam, Selangor Darul Ehsan, Malaysia
Tel: +603 5510 8810 Fax: +603 5518 8202

www.denka-cs.com

Limitation of Liability

The information contained in this brochure provides general advice for potential customers for DENKA about the basic properties and characteristics of various DENKA products (hereafter known as "the Product Information"). DENKA makes no warranty or representation as to the entire accuracy or completeness of the Product Information in the brochure. Nothing in this brochure will be deemed to create any express or implied warranty of merchantability, fitness for a particular purpose or infringement of any intellectual property rights. Each user of the Product Information and DENKA products assumes their own responsibility to properly determine the manner and suitability of use of the Product Information and DENKA products in its own operations. The user should exercise proper care in considering the Material Safety Data Sheet, Product Information and any other technical information provided by DENKA including descriptions of the conditions of use, warnings and other cautionary instructions. DENKA reserves the right to change the Product Information from time to time at its discretion and without notice.