

PENTENS PU-101

One Part Hydrophilic Polyurethane

Product Data Sheet

Description

Pentens PU-101 is a one-part hydrophilic polyurethane grouting material, specially designed for construction joints and cold joints. All of these unwanted openings in concrete structures may cause very serious problems in water leakage.

Most of these problems can be solved by utilising PENTENS Pressure Injection Systems. It has been proven to stop water leakage permanently. Slabs on grade, construction or control joints, parking garages, manholes, tanks, dams and many other structures can now be fixed permanently.

Uses

Areas of application include:

- RC roof slabs
- Retaining walls
- Bathroom slabs
- Floor slabs
- Water tanks
- Terraces and balconies
- Patios
- RC gutters and planter boxes
- Swimming pools
- Suspended floors
- Basements and foundations

Advantages

- Underwater injection approved.
- Good elastic strength, tolerant of movement.
- Inert after curing, constant volume, no shrinkage.
- Foam increases in volume to fill cavities and voids.
- Excellent bond on wet surfaces.
- Negative side application possible.
- Deep penetration into very small cracks.
- Does not create new cracks.
- Non-toxic.

Technical & Physical Data

Form	Single part liquid
Colour	Transparent
Solubility in Water	Hydrophilic
Solids (ASTM D 1010)	100%
Density, g/ml (ASTM D 3800-79)	1.12
Viscosity, cps (ASTM D 2196)	160-200
Max. Expansion,	30 times
Induction Time, 20°C/68°F	10 Sec
Gel. Time, 20°C/68°F	30 Sec
Elongation at Break (%) (ASTM D 412-98)	>30
Strength (Sand Filled)	2000 Psi
Appearance	White polyurethane foam
Corrosiveness	Non-corrosive
Chemical Resistance	Resistant to most organic solvent, mild acids, alkali and other chemicals.
Shelf Life	1 year when unopened and undamaged
Storage Condition	Store in a dry, cool place
Packaging	20kg /pail

Important Notes

1. Minimum ambient and substrate temperature is 5°C.
2. Material shall be stored in a dry, cool place. Good storage stability for unopened containers is at 15°C - 35°C.

Instruction for Use

Step 1 : Clean Surface

Sometimes the concrete surface is hidden under a surface of mineral deposits left from long-term water leakages.

Step 2 : Drilling Injection Holes

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

The depth of the drilled hole intersecting the crack should be somewhere close to the center of the structure, if possible.

Step 3 : Insert 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 tightly as necessary.

Step 4 : Flush Crack If Necessary

In some circumstances, it can be very useful to flush the crack with water to improve subsequent penetration of the PENTENS injected resin into thicker walls.

Step 5 : Crack Injection

Choose proper resin for the correct application. The nature of the crack/joint and the conditions on site determine the choice of material. Active water flow at a high rate is best stopped by using PENTENS PU-101. Moving cracks and expansion joints can also be injected with PENTENS PU-101. Hairline cracks and dry cracks should be sealed using PENTENS T-800. Some problems can be solved by using a combination of products.

Step 6 : Clean Up

Once the injection work is completed, a good and thorough clean up is essential. The packers can be removed within 1 hour and the holes should be patched using PENTENS T-800.

For more details, please refer to PENTENS Technical Department.

Cleaning

Tools and equipment can be easily cleaned with thinner immediately after use. Hardened material can only be removed mechanically.

Safety

Impervious gloves and barrier cream should be used when handling these products. Eye protection should be worn. In case of contact with eyes, rinse thoroughly with plenty of water and seek medical advice if symptoms persist. If contact with skin occurs, it must be removed before curing takes place. Wash off with an industrial skin cleanser followed by plenty of soap and water. Do not use solvent. Ensure adequate ventilation when using these products.

