

ShaliGrout® PU 2K FS

Two component, Low viscous, Polyurethane Injection System to Stop Water Leakage



STP Limited

Description

ShaliGrout® PU 2K FS is two component, low viscous solvent and phthalate free polyurethane injection system for the elastic sealing of cracks in concrete structures. To stop water leakage **ShaliGrout® PU 2K FS** could be used as a premix and injected as a single component and flexible foam will be formed. To create a permanent elastic seal, the structure can be re-injected with **ShaliGrout® PU 2K FS** using the same material and the same pump and the same packer.

Technical Specification at 25°C and 50% RH

Property	Typical Results
Mixing ratio p.b.w.	100 : 60
Mixing ratio p.b.v.	2 : 1
Viscosity of the mix mPa.s	150 - 200
Pot life without water contact, minutes	35 - 45
Gel time without water contact, minutes	60 - 80
Cream time with water contact, seconds	50 - 70
Gel time with water contact, seconds	200 - 300
Free foam expansion, %	>1500
VOC, g/L	<50
Elongation at Break, %	85 - 95
Minimum width of crack, mm	0.1
Moisture state of the crack	Dry, wet, moist cracks
Application temperature, °C	5 - 45
Corrosion behavior	Deemed to have no corrosive effect

Field of Application

- Sealing leaking cracks to create a permanent sealing of the crack with one material, machine and packer
- For injecting into leaking but also dry cracks in concrete or masonry.
- Leaking construction joints
- Water retaining structures
- Sewage treatment plants
- Substructure concrete constructions

Advantages

- Dual function in one material – stopping small water leaks and a permanent sealing of cracks.
- Low viscosity allows full penetration in fine cracks and voids.
- Suitable for hot and cold climates.
- Good adhesion to dry, moist and wet concrete or masonry.
- Forms flexible foam in contact with water.
- Forms an elastic resin in the absence of water.
- Can withstand high hydrostatic pressures as the cured resin is impermeable to water.
- Can be pumped as a 1 component premix because of the long pot life; therefore, a single component injection pump can be used.
- The system is suitable for use in contact with potable water.

Application Methodology

➤ Mixing

- Due to the long pot life for the **ShaliGrout® PU 2K FS**, it can be pumped as a single component pre-mix.
- Pour the content of the Part A into a CLEAN, DRY plastic bucket.
- Add the required amount of Part B.
- Mix thoroughly manually or with a slow speed mixer (stirrer fixed to a drilling machine) for about half a minute until the mix is homogeneous.

➤ Process

- **ShaliGrout® PU 2K FS** should be injected using an injection machine having a covered reservoir to avoid moisture coming into the pre-mix.
- **ShaliGrout® PU 2K FS** is then injected into the holes with a high-pressure pump capable of reaching pressures up to 200 bar. This forces the **ShaliGrout® PU 2K FS** deep into the structure and allows penetration into the smallest cracks.
- Inject the packers sequentially; on a vertical crack start the injection from the lowest packer and continue to the next packer etc.
- Once all the packers have been injected start the second injection from the first packer again with the same material, pump and packer
- Because of the long pot life for the **ShaliGrout® PU 2K FS** will remain liquid inside the packer after the 1st injection and the packer will take a second injection or even a third injection.
- The 2nd injection should be done within 20 - 25 minutes.
- If a pure resin comes out of the front from the crack the crack is filled with elastic resin and will be permanently sealed.

Precautions

- Avoid skin contact.
- Do not discard unmixed or partially mixed material into the water system.
- To avoid condensation drums should only be opened when the material in the drum has the same or slightly higher temperature than the temperature on the working place.

Value base of product data

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control and different test methods.

Cleaning & Maintenance

Clean tools and equipment with STP recommended cleaning agents immediately after use and before the resin sets. Once the resin is set, it can only be removed by mechanical means

Health & Safety

- Use mask, nose cover and hand gloves during application.
- Clean hands with soap water after application.
- Avoid contact with skin / eyes. In case of unlikely contact with eyes, rinse immediately with plenty of clean water, then cleanse with soap and lukewarm water and seek medical advice. Do not use solvent to clean the contacted area.
- Prevent swallowing. In case of unlikely swallowing, seek medical attention immediately. Do not induce vomiting.

Packing

Available in 8 kg pack (5 kg Part A, 3 kg Part B).

Storage

Store in cool dry place, under the shed, away from heat, water. Once a pack has been opened, use immediately. Purging a part pack with nitrogen is also essential.

Shelf Life

6 months in original unopened sealed conditions when stored between 5°C - 35°C.



STP Limited
Enhancing Structures' Life

Product Range

- Waterproofing and Insulation ■ Road Surfacing
- Sealants and Additives ■ Pipeline Coating
- Protective / Anti-Corrosive Coating ■ Epoxy Flooring
- Grouts / Admixtures ■ RestoFix- Repair / Rehabilitation
- Other Construction Chemicals



Advisory Cell: +91 81302 81114