

ShaliGrout® PU 2K 20

Water Reactive, Hydrophobic Polyurethane Injection Grout



STP Limited

Description

ShaliGrout® PU 2K 20 is a hydrophobic, solvent and phthalate free, water reactive polyurethane reaction system. It will react only when it comes in contact with water and would form relatively stiff PU foam and would stop leakage. **ShaliGrout® PU 2K 20** is a single component product with an additional catalyst to adjust time as per ambient condition and practical situation.

Technical Characteristics at 25°C and 50% RH

Free Foam Expansion, %	2800 - 3000	Gel time, seconds	Depends on catalyst dosage
Elongation % (ASTM D 638)	5 - 16	Recommended temperature range	5°C - 45°C
Viscosity, mPa.s	20 - 65	Mixing Recipe	100 gm of ShaliGrout PU 2K 20, 20 gms water and Catalyst D, as required

Mixing ratio and approximate foam time at 25°C and 50% RH

Percentage of Catalyst D	Cream time, seconds **	Gel time, seconds
2	25 - 30	100 - 110
4	17 - 23	70 - 80
6	15 - 18	50 - 60
8	12 - 15	40 - 50
10	10 - 13	35 - 45
20	8 - 10	25 - 35
30	5 - 7	20 - 30

** Cream time is the time from the start of the mixing until the foaming starts

*** Gel time is time from the start of the mixing until the foam does not expand more

Application

- Rapid sealing of leaking cracks in concrete structures as a temporary water stop.
- For heavy water leakages the system can be catalyzed to achieve very short gel time to reduce flow of water.
- Leaks from large and small caliber sewer pipes, concrete crack and expansion joints.

Advantages

- Suitable for contact with potable water and also reacts with sea water, mineral water, etc.
- Short gel time forms highly tough, resilient and non-toxic gel.
- Suitable for hot and cold climates
- Good adhesion to substrates and can withstand high hydrostatic pressures
- Applicable with electric and pneumatic injection pumps.

Application Methodology

- Drill holes at 45° angle to intersect the crack approx 4" below concrete surface. Drill holes alternately on opposite sides of the cracks allowing 8" distance.
- Pour the content of part A in a clean dry, plastic bucket.
- Add the required quantity of Catalyst after referring the above table for gel time and cream time.
- Mix thoroughly by hand or low speed stirrer for about half a minute until the mix is homogeneous
- Inject **ShaliGrout® PU 2K 20** using a standard injection machine having a covered reservoir to avoid moisture coming into the mix.
- The injection pressure should be at least 4 bar.

- Inject the packers sequentially, on a vertical crack start the injection from the lowest packer and continue to the next packer etc.
- Remove excess **ShaliGrout® PU 2K 20** from surface by using sharp knife when product has stopped foaming.

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

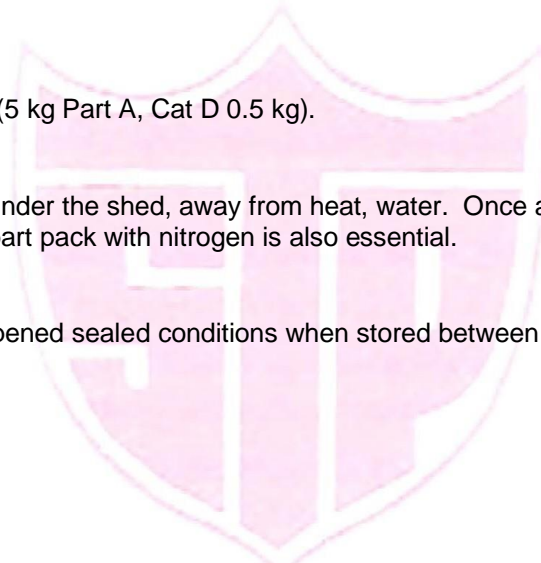
Available in 5.5 kg pack (5 kg Part A, Cat D 0.5 kg).

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

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- Sealants and Additives ■ Pipeline Coating
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