



TechnoPur® Gelflex LV 2 in 1

Two-component, low viscous, dual combination solvent and phthalate-free Polyurethane injection system to stop water leakage along with permanent & elastic sealing of cracks.

Description:

TechnoPur® Gelflex LV 2 in 1 is a two-component, low viscous, dual combination solvent and phthalate-free, polyurethane injection resin grout system to stop water leakage along with permanent & elastic sealing of cracks in the concrete structure. TechnoPur® Grout Gelflex Plus special dual combination characteristics are designed to work in both wet and dry surfaces in concrete structures and work effectively as mentioned below:

In case water is present in the concrete structure, it will form a solid elastic foam. In case there is no water in the concrete structure or the water has been reacted away, it will form a solid flexible resin with the performance of a permanent elastic sealing within the structural crack.

TechnoPur® Gelflex LV 2 in 1 comprised of an "A" component (base resin) and a "B" component (Hardener). To stop water leakage TechnoPur® Gelflex LV 2 in 1 could be used as a premix and injected as a single component and a flexible foam will be formed. To create a permanent elastic seal, the structure can be re-injected with TechnoPur® Gelflex LV 2 in 1 using the same material and the same pump and the same packer.

Application Includes:

- 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.

Features:

- 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 a flexible foam in contact with water
- Forms an elastic resin in the absence of water
- Can withstands high hydrostatic pressures as the cured resin is impermeable to water
- Can be injected or pumped as a 1 component premix because of the long pot life; therefore, a single component injection pump can be used.

Directions for use

Surface preparation

Clean area of concrete so cracks are identifiable. It is recommended to use packers especially when injecting against running water. Other techniques may be used, but are application specific. Drill holes to suit the specific dimensions of the packers and should be spaced at between 150 to 500mm intervals depending upon the crack width, depth and pressure of water. Angle should be at approximately 45° and bisect the crack in the center of the concrete where possible. If rebar is struck, stop drilling and move drilling point to adjacent area. Where possible stagger the injection points either side of the crack. Insert packers and ensure they are tight to the concrete. If necessary they may be sealed with TechnoSeal® EPA 1500 (HS) and TechFin® FastPlug as well.

Sealing cracks by injection positioning the injectors.

Make off-set holes on the sides of the cracks. The size of the holes should fit the diameter of the injectors that will be used. Expansion injectors with a non-return valve can be easily fixed by self-tapping completely to the walls of the hole.

If there is no water ingress, normal copper, steel or PVC tubes with a diameter of approximately 10 mm can be used. Detailed information and guidance of pump and packer selection for specific requirements are available from *STIPL.

Typical Properties

Product identity (+20°C and 60% R.H.)		
TechnoPur® Gelflex LV 2 in 1	component A	component B
Colour:	Clear	Dark brown
Consistency:	liquid	liquid
Viscosity	100-140 mPa.s	400-500 mPa.s
Specific gravity	1.010-1.030 Kg/m ³	1.120 - 1.140 Kg/m ³
Mixture characteristics	Component A : component B = 1 : 1 (p.b.w.)	
Colour	Brown	
Mixed viscosity	175-225 mPa.s	
Specific gravity	1.060 -1.080 kg/m ³	
Reaction times with water	80 - 100 sec	
Reaction times without water (Gel time)	40 - 50 minutes	
Pot life	35- 45 minutes	
Tensile strength	1.5 -2.5 MPa	
Elongation at break	30-50 %	
Shore Hardness	30-50 A	

Packaging

TechnoPur® Gelflex LV 2 in 1 is supplied in 20 kg & 40 Kg dual packs. Packaging size may vary subject to local regulations and requirements.

Shelf Life & Storage

12 months from the date of manufacturing when stored in unopened, original sealed and dry condition at a temperature range from +10°C to 30°C.

Health and Safety instructions

Some people are sensitive to resins so gloves and a barrier cream should be used when handling TechnoPur® Gelflex LV 2 in 1. If contact with the resin occurs, it must be removed, before it hardens, with a resin removing cream. Follow by washing with soap and water.

Do not use solvent. The use of goggles is recommended but should accidental eye contamination occur, wash thoroughly with plenty of water and seek medical treatment immediately.

Ensure adequate ventilation in volume and pattern in working area and do not smoke during use. Consider property in proximity of the application area to prevent loss or damage. Protect your jobsite from unauthorized persons. Store all materials and equipment safely and out of reach of children and animals.

Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment.

Product only for professional use.

Additional Information: Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd -The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

*Separate datasheet are available on these products.

DISCLAIMER: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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Please note that this datasheet supersedes all previous versions.

Preparing the product and injecting

The two components that make up TechnoPur® Gelflex LV 2 in 1 must be mixed together by a special pump for resins. Due to the long pot life for the TechnoPur® Gelflex LV 2 in 1 it can be pumped as a single component pre-mix. In order to carry out injection, 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 3 minute until the mix is homogeneous must be separately conveyed through the pump and into the nozzle previously placed on the injector and mixed by a static helicoidal /static in-line mixer placed within the nozzle. After mixing, TechnoPur® Gelflex LV 2 in 1 must be injected continuously through the crack.

The ready mixed material should be installed within 60 minutes using a pneumatic 2 component injection high-pressure pump that should be capable of reaching pressures up to 200 bar and also can be injected using a single component injection high-pressure pump that should be capable of reaching pressures up to 200 bar.

For areas where the ambient temperature is very low, the reaction can be hastened up by adding a special catalyst to get very short gel time (couple of minutes) In that case, a two component mixing machine should be used.

Note: components A and B must be mixed thoroughly before use in order to blend in any additives that may have settled. Component A may become more viscous if stored at low temperatures. TechnoPur® Gelflex LV 2 in 1 should be applied by experienced grouting expert /crews. *STIPL provides detailed method statements on all its products for use in various applications and must be referred to prior to starting the work.

Finishing

Once the injection process has finished, remove injection packers and fill with TechnoSeal® EPA (HS) or TechFin® FastPlug or other appropriate TechFin® material. Scrape off any foam residue from the cracks and dispose of appropriately.

Cleaning

The pump and line of Components must be thoroughly cleaned with TechnoPur® Eco Cleaner and preserved with Flushing oil through pumping it through the pump. Curing process might take place with residual product left in the pump and injection line with the air humidity.

Consumption

Consumption has to be estimated by the operator as it depending on the width and depth of the crack as well as the on the amount of water to be stopped.

Limitations

Temperature significantly affects viscosity. Protect material from excessive heating and cooling prior to grouting to avoid affecting viscosity. Do not reseal containers of contaminated materials as it can create pressure. Clean up spills with adequate ventilation and appropriate personal.

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