

## Description:

TechnoPur®InjectoSeal 2K is an ultra-rapid reacting, expansive hydrophobic polyurethane injection grout specially designed to stop active water leaks and fill voids in concrete, gravel layers and rock fissures. Having very high reactivity and excellent mechanical performance and chemical stability characteristics the product enable to cut off large water leaks. It cures to a rigid, durable, closed cell polyurethane foam resistant to most organic solvents, mild acids, alkali, petroleum and micro-organisms. The closed cell foam will maintain its physical form and is not subject to shrinkage due to wet/dry cycles.

TechnoPur®InjectoSeal 2k comprised of an "A" component (base resin) and a "B" component (Hardener). After having mixed the two components together in the ratio 1:1 by volume, with a special plural component pump equipped by static helicoidal /static in-line mixer, TechnoPur®InjectoSeal 2K forms a polyurethane foam of great strength.

## Application Includes:

- Extreme water ingress.
- Dry fissure grouting.
- Foundation stabilisation.
- Large voids.

## Features:

- Seals against water- Reacts and produces foam resistant to water
- Rapid acting- Rapid reaction to produce water stop in presence of flowing water
- Hydrophobic- can be used in wet and dry environments
- Permanent seal- At the end of the setting time, within a few seconds, depending on the temperature, TechnoPur®InjectoSeal2K becomes completely waterproof and ensures an adequate consolidation to the treated structure
- High foam strength- forms a polyurethane foam of great strength
- Medium viscosity- can also penetrate through small cracks and sealing them even if they are subject to water infiltrations.
- Non-toxic, 100% solids & Solvent free- environmentally safe.

## 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 centre 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 or TechFin® FastPlug as well.

### Sealing cracks by injection.

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.

## Typical Properties at 25°C

<b>Product identity (+20°C and 60% R.H.)</b>		
TechnoPur <sup>®</sup> InjectoSeal K	Component A	component B
Colour:	light yellow	dark brown
Consistency:	liquid	liquid
Density (g/cm <sup>3</sup> ):	1.05 ± 0.02	1.23 ± 0.02
Mix ratio (A:B by volume)	1:1	1:1
<b>Application Data</b>		
Mixture characteristics	Component A : component B = 1 : 1 (by volume)	
Colour	Brown	
Density	1.1	
Final cure	1 day	
Viscosity @25°C Brookfield DV 11 spindle no. 2 at 60rpm	300 - 400mPa·s	
Elongation at break	3 - 4%	
Expansion	> 15 times	
Slant shear bond strength BS6319-4	> 12.5 MPa	
<b>Reaction Times (1:1)</b>	@ 15°C	@ 25°C
Cream time	50 sec	30 sec
Rise time	120 sec	90 sec
Tack free time	180 sec	110 sec

\*All technical data stated herein is based on tests carried out under laboratory conditions.

## Health and Safety instructions

Some people are sensitive to resins so gloves and a barrier cream should be used when handling TechnoPur®InjectoSeal2K. 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.

**EDITION:** 09/2017/001

**IDENTIFICATION NO:** PD-044

Please note that this datasheet supersedes all previous versions.

## Preparing the product and injecting

The two components that make up TechnoPur®InjectoSeal 2K must be mixed together by a special pump for two-component resins. In order to carry out injection, TechnoPur®InjectoSeal 2K part A and TechnoPur®InjectoSeal 2K part B in the ratio 1:1 by volume, 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®InjectoSeal 2K must be injected continuously through the crack.

When the two components are mixed, the viscosity of the mixture increases substantially, therefore the injected mixture will not separate or be washed out by the water pressure. The increase in volume of the foam and its fast reaction stops the water ingress within a few minutes.

In the absence of water, TechnoPur®InjectoSeal 2K hardens without increasing in volume and rapidly seals the crack. Careful consideration should be given to applications below 10°C on a falling thermometer to avoid possible crystallisation.

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.

## Finishing

Once the injection process has finished, remove injection packers and fill with TechnoSeal® EPA 1500 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.

## Packaging

TechnoPur®InjectoSeal 2K is supplied in 45 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.

## Consumption

The consumption of the product depends on the size of the void volume to be filled and the foam expansion factor after mixing the two components, in relation to the amount of water present.

## 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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