

Advanced  
Construction  
Technologies

## Seal Leaks



### SPETEC PUR GT500

Hydrophilic Closed Cell Polyurethane Foam Injection Resin

#### Product Identifier

*Product Name*

SPETEC PUR GT500

*SPETEC PUR GT500 is a single component, low viscosity, flexible hydrophilic polyurethane foam injection resin.*

#### *Supplier Details*

Alchatek  
4508 Bibb Blvd  
Tucker, GA 30084  
T: (404) 618-0438

#### *Emergency Phone Numbers*

Call CHEMTREC  
Day or Night

1-800-424-9300  
+1 703-527-3887

#### Description

SPETEC PUR GT500 is a single component, low viscosity, flexible hydrophilic polyurethane foam injection resin.

#### Uses

- Sealing cracks in concrete structures through pressure injection.
- Sealing hairline cracks, expansion joints, wide cracks, pipe joints, pipe penetrations.
- Saturating dry oakum to create a flexible gasket for sealing pipe penetrations, joints and larger defects in concrete structures.

#### Advantages

- No catalyst required.
- Tenacious bond to wet concrete.
- High elongation.
- Thin enough to penetrate tight cracks.
- Moderately hydrophilic.
- Phthalate free (more environmentally friendly).
- Certified by ALS Global to NSF/ANSI/CAN 61 (approved for contact with drinking water).

#### Application

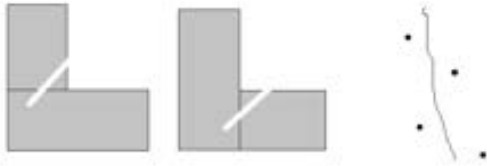
Note: the following are a few typical application descriptions. In case of other jobsite parameters, please contact our technical department.

# SPETEC PUR GT500

HYDROPHILIC CLOSED CELL POLYURETHANE  
FOAM INJECTION RESIN

## PRELIMINARY ANALYSIS

For leaking joints, identify if the cold joint runs vertically or horizontally. Injection holes have to be angle drilled into the joint. For leaking cracks, drill the injection holes in a zig-zag pattern around the crack to make sure that the injection hole intersects the crack.



## PREPARATION OF THE SUBSTRATE

Drill at 45° angle into the crack or joint. Ideally the injection hole should intersect the joint or crack half way through the thickness of the wall or slab. Blow the dust out of the injection hole with a probe that reaches the back of the hole. Fix a packer of the right diameter into the injection hole.

## PREPARATION OF THE PRODUCT

Read the technical and safety data sheets prior to commencement of the injection works.

## PREPARATION OF THE EQUIPMENT

Depending on the application, injection can be carried out using a hand pump, pneumatic pump or electric pump. Use separate pumps for injection of water and polyurethane resin. Check that the pump is working properly. Prior to injection, the resin pump must be flushed with appropriate pump flush and be completely free of water to prevent pump blockage.

## APPLICATION

- Start the injection at the first packer; for vertical joints or cracks this is usually the lowest packer.
- Do not over pressurize while injecting; the correct injection pressure is the pressure that allows to resin to flow into the crack or joint. Avoid injecting at pressures of more than 1500psi (100bar).
- If unreacted resin comes out of the joint or crack, stop the injection and move on to the next packer.
- After the last injection of resin into the packer, shoot a little bit of water into the packer in order to make sure that the last injected resin will react as well.
- Only catalyze the resin you will use within the next few hours.
- Always flush the pump out at the end of the day. Resin left in the pump overnight can damage the pump.

## REQUIRED TOOLS

Drill and drill bits of appropriate diameter and length. Mechanical Packers of appropriate diameter and length. Injection pump; manual, pneumatic or electric.

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## CLEANING AND MAINTENANCE

After the injection, clean the pump with AS Pump Flush. If the pump will not be used for several days, flush the AS Pump Flush out of the pump with lightweight motor oil or hydraulic fluid and leave it there until the next usage. Never rinse the pump with water. After injection, remove the packers from the concrete and fill the holes with a fast setting cement or any other appropriate filler material.

## COMPLIMENTARY PRODUCTS

For certain application where a faster reaction time is needed a special fast catalyst can be used. AS Pump Flush, Mechanical Packers, Oakum, and Injection Needles. SPETEC® I.T.S KIT or SPETEC® R-I.T.S SYSTEM must be ordered separately. See Technical Data Sheets.

## ADVICE / FOCAL POINTS

Avoid injecting when temperatures are below -4°F (-20°C). In extreme cold conditions it is recommended to warm the resin and catalyst. Since SPETEC PUR GT500 is water-reactive, liquid water should be present.

## Technical Data

### APPEARANCE

Physical Properties 77° F (25° C) - Liquid

Physical Properties - Cured

SPETEC PUR GT500			
Tensile Strength	(ASTM D-3574)	450 p.s.i.	31,026 millibar
Tensile Elongation	(ASTM D-3574)	350%	-
Shrinkage	(ASTM D-1042/D-756)	Less than 2%	Negligible
Tear Resistance	(ASTM D-3574)	21 lbs / inch	3750 gram / centimeter
Same Day Viscosity at 25° C (77° F)	300 - 330 Centipose		

These properties were based on foam cured under pressure to simulate conditions inside a crack. Properties will vary depending on application conditions.

## REACTION/RISE/CURE TIMES & EXPANSION

Initial Reaction	30 Seconds
Full Rise	1 Minute, 30 Seconds
Full Cure	24 hours
Expansion	6X (600%)

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## **Estimating Quantities**

Consumption has to be assessed on site and is influenced by the amount of water leaking, thickness of the concrete slab or wall, presence of voids in and around the concrete, etc.

## **Packaging**

SPETEC PUR GT500 is supplied in 5 Gallon Pails (18.9 Liter Pails)

## **Storage and Shelf Life**

Store between 50° - 80° F (10° - 26° C).

## **Safety Precautions**

Avoid contact with eyes and skin, always use personal protective equipment in compliance with local regulations. Read the relevant Safety Data Sheet before use. Safety Data Sheets are available on [Alchatek.com](http://Alchatek.com). When in doubt contact Alchatek Technical Service.