SPETEC PUR H200

WATER-ACTIVATED SEMI-RIGID POLYURETHANE FOAM INJECTION RESIN

1C
1-Component

DESCRIPTION

SPETEC PUR H200 is a single component, water-activated, hydrophobic, low viscosity, closed cell polyurethane injection resin.

USES

- Cutting off high flow leaks.
- Filling voids behind concrete structures.
- Cutting off underground water flows.
- Stabilizing soil.
- Seawall repair.

ADVANTAGES

- Very low viscosity.
- Water impermeable.
- Adjustable set time – as fast as 20 seconds.
- Injected as a single component.
- Phthalate free (more environmentally friendly).
- **Certified by ALS Global to NSF/ANSI/CAN 61 (approved for contact with drinking water).**

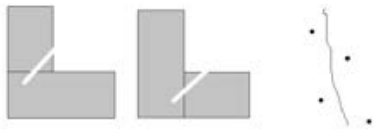
ALS
NSF/ANSI/CAN 61

APPLICATION

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

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. Vigorously shake the ACC H200 or ACC H200 Fast accelerator before use and add the required quantity (2-10%) into the Spetec PUR H200 resin. Mix the catalyst homogeneously into the resin and protect against moisture and rain to prevent premature reaction. Only mix the amount of material that can be used the same day.

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.

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. ACC H200 or ACC H200 Fast accelerator.

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 H200 is hydro active, liquid water should be present.

TECHNICAL DATA

APPEARANCE

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

Physical Properties - Cured

Spetec PUR H200			
Tensile Strength	(ASTM D-1623)	450 p.s.i.	2,965 millibar
Tensile Elongation	(ASTM D-1623)	2.9%	-
Shrinkage	(ASTM D-1042/D-756)	Negligible	Negligible
Compressive Strength (with fine sand)	(ASTM C-39)	2,050 p.s.i.	141,343 millibar
Pre-activated mix viscosity	80 -100 Centipose		0.08 - 0.1 Pa·s

Expansion
Up to 30x expansion (free foam)

Properties will vary depending on application conditions.

REACTION TIMES

ACC H200 (Not recommended to use below 2%)

Quantity by Volume	2%	5%	10%
Initial Reaction	25 sec	15 sec	8 sec
Full Rise	1 min 50 sec	1 min 27 sec	30 sec

ACC H200 Fast (Not recommended to use below 5%)

Quantity by Volume	5%	7.5%	10%
Initial Reaction	5 sec	5 sec	5 sec
Full Rise	30 sec	22 sec	16 sec

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 H200 is supplied in 5 Gallon Pails, 50 Gallon Drums, 250 Gallon Totes (18.9 Liter Pails, 189.2 Liter Drums, 946.3 Liter Totes)

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 www.alchemy-spetec.com

When in doubt contact Alchemy-Spetec Technical Service.

FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. READ SAFETY DATASHEET PRIOR TO EVERY USE.