REMEDIAL WATERPROOFING

SPETEC® STOP H100

SEMI RIGID INJECTION RESIN FOR SEALING LEAKING CRACKS AND JOINTS

DESCRIPTION

One component, closed cell, hydrophobic, water reactive, phthalate free, low viscosity polyurethane injection resin for stabilisation and water cut-off of large water leaks. In contact with water the SPETEC® STOP H100 will expand and set as a permanent water seal inside the crack or joint.

BENEFITS

- Single component system.
- Different reaction times are possible by adjusting the percentage of SPETEC® Gen Acc (accelerator). To get an even faster reaction, there is also a SPETEC® Gen Acc Fast accelerator available.
- Cured polyurethane exhibits high strength and good chemical resistance (contact our Technical Service for more information) .
- Cured polyurethane is harmless for the environment and resistant to biological attack.
- NSF/ANSI/CAN 61-5 certified for contact with drinking water, or certified as a product to intended to form a barrier for drinking water.

FIELD OF APPLICATION

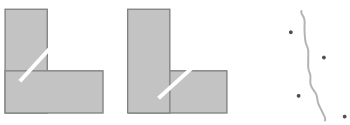
- Water cut-off of large flow and high pressure water leaks.
- Water cut-off of water leaks in foundations such as diaphragm walls, piling sheets and secant piles.
- Stabilisation and water cut-off of large cracks, voids and gravel layers.
- Pre and post injections in mines, tunnels, pipe jacking, drill & blast and TBM applications.
- Injections in combination with cement-based grout, “combi-grouting”.
- Crack and gravel layer injections in concrete structures.
- Soil stabilisation and anchors in porous geology.
- Water cut-off of sewer water leaks and sewer stabilisation.
- Probe Grouting for below grade pipes.
- Manhole Injections.

APPLICATION

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

PRELIMINARY ANALYSES

For leaking joints, check how the joint runs into the construction. Injection holes have to be 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 with the crack.



REQUIRED TOOLS

- Drill and drill bits of appropriate diameter and length.
- Packers of appropriate diameter and length.
- Manual, pneumatic or electric injection pump

PREPARATION OF THE SUBSTRATE

Drill under an angle of 45° into the crack or joint. Ideally the injection hole should intersect the joint or crack about half way the thickness of the wall or slab.
Blow the dust out of the injection 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 SPETEC® Gen Acc or the SPETEC® Gen Acc Fast accelerator before use and add the required quantity (2-10%) into the SPETEC® STOP H100 resin. Mix the accelerator homogeneously into the resin and protect against moisture and rain to prevent premature reaction.
Only prepare that amount of product that can be processed in one day.

PREPARATION OF THE EQUIPMENT

Depending on the application, injection can be carried out using a hand pump, pneumatic pump or electric pump.
Preferably use a separate pump for injection of water and PU resin.
Check that the pump is working properly.
Prior to injection, the pump must be flushed with SPETEC® PUMP CLEANER and be completely free of water to prevent pump blockage.

INJECTION

Start the injection at the first packer; for vertical joints or cracks this is usually the lowest packer.
Do not over pressurise while injecting; the correct injection pressure is the pressure that allows the resin to flow into the crack or joint. Avoid injecting at pressures of more than 100 bars.
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.

FINISHING

After injection, remove the packers from the concrete and fill the holes with a fast setting cement or any other appropriate filler material.

APPLICATION CONDITIONS

Standard applicable between 1°C and 35°C. For applications outside these conditions, please contact our technical service. It is recommended to warm up the resin and accelerator in extremely cold conditions. Do not inject into substrates or sub-soils with freezing conditions where there is no liquid water for the resin.

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CLEANING AND MAINTENANCE

After the injection, clean the pump with SPETEC® PUMP CLEANER. If the pump will not be used for several days, put oil into the pump and leave it there until the next usage. Never rinse the pump with water.

COMPLIMENTARY PRODUCTS

- SPETEC® PUMP CLEANER
- SPETEC® PACKERS & ACCESSORIES
- CERMIPLUG

ADVICE / FOCAL POINTS

Water must always be present during the injection of SPETEC® STOP H100 as it is a water-reactive resin.

TECHNICAL DATA

APPEARANCE

SPETEC® STOP H100, uncured (appearance: brown liquid)		
Viscosity at 25 °C	Brookfield SP3 - 200 rpm	±180 mPa.s
Density	EN ISO 2811-1	±1.05 kg/dm³

SPETEC® Gen Acc, Accelerator for SPETEC® STOP H100 (appearance: yellow - orange liquid)		
Viscosity at 25 °C	Brookfield SP3 - 200 rpm	± 75 mPa.s
Flash point		157 °C
Density	EN ISO 2811-1	± 1.05 kg/dm³

SPETEC® Gen Acc Fast, Accelerator voor SPETEC® STOP H100 (Appearance: yellow - orange liquid)		
Viscosity at 25 °C	Brookfield SP3 - 200 rpm	± 70 mPa.s
Flash point		157°C
Density	EN ISO 2811-1	± 1.05 kg/dm³

REACTION TIMES

SPETEC® Gen Acc	5 °C			15 °C			25 °C		
%	Start	End		Start	End		Start	End	
2	100″	440″	16V	86″	450″	15V	33″	200″	17V
6	32″	120″	16V	20″	105″	17V	14″	79″	20V
10	26″	90″	17V	18″	64″	18V	10″	45″	20V

SPETEC® Gen Acc Fast	5 °C			15 °C			25 °C		
%	Start	End		Start	End		Start	End	
2	50″	240″	17V	35″	175″	17V	28″	155″	18V
6	30″	95″	17V	15″	57″	18V	12″	45″	20V
10	15″	40″	17V	12″	33″	18V	8″	28″	21V

CONSUMPTION

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.

CHEMICAL RESISTANCES

Cured polyurethane exhibits good chemical resistance, is harmless for the environment and resistant to biological attack. Contact our Technical Service for more information.

REFERENCE DOCUMENTS

bsi. ISO 9001:2015 Quality Management FM 78518

bsi. ISO 14001:2015 Environmental Management EMS 716699

REACH COMPLIANT

ALS Certified to NSF/ANSI/CAN 61-5

PACKAGING

SPETEC® STOP H100	20 kg	Pails	24 pails/pallet
	200 kg	Steel drums	4 drums/pallet
SPETEC® Gen Acc	2 kg	Plastic Bottles	4 bottles/box 44 boxes/pallet
	20 kg	Metal Cans	24 pails/pallet
SPETEC® Gen Acc Fast	2 kg	Plastic Bottles	4 bottles/box 44 boxes/pallet

STORAGE AND SHELF LIFE

SPETEC® STOP H100 is moisture sensitive and should be stored in a dry area between 5 °C and 30 °C.
Shelf life of the resin:
24 months after production date, in original packaging.
Shelf life of the accelerator:
12 months after production date, in original packaging
Once opened, containers should be used as soon as possible.

SAFETY PRECAUTIONS

Avoid contact with eyes and skin, always use personal protective equipment in compliance with local regulations.
Read the relevant Material Safety Data Sheet before use. Material Safety Data Sheets are available on www.spetec.com
When in doubt contact SPETEC® Technical Service.

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