

SPETEC® STOP HF300 (HIGHFOAMER)



FAST REACTING RIGID INJECTION RESIN WITH HIGH EXPANSION (HIGHFOAMER) FOR SEALING LARGE FLOW HIGH PRESSURE WATER LEAKS AND FOR FILLING GAPS AND VOIDS.



DESCRIPTION

One component, closed cell, hydrophobic, water reactive, phthalate free, low viscosity polyurethane injection resin for cut-off of large water leaks and void filling.

In contact with water the SPETEC® STOP HF300 (Highfoamer) will react fast and expand drastically.

ADVANTAGES

- Single component
- 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 is rigid and exhibits high strength and good chemical resistance. (contact our technical service department for more information)
- Cured polyurethane is harmless for the environment and resistant to biological attack.

FIELD OF APPLICATION

- Water cut-off of large flow and high pressure water leaks.
- Sealing foundations and sludge walls, sheet piles, secant pile walls.
- 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.
- Crack and gravel nests injections in concrete structures.
- Water cut-off of sewer water leaks and sewer stabilisation.
- Injection of man holes.

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
Injection pump; manual, pneumatic or electric.

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, SPETEC® Gen Acc Fast before use. Pour the required amount (5-10%) into the SPETEC® STOP HF300 (Highfoamer) 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 polyurethane resin.

Check if 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 to 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

Avoid injecting at temperatures below -20°C. In extreme cold conditions it is recommended to warm the resin and catalyst.

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 HF300 (Highfoamer) as it is a water-reactive resin.

TECHNICAL DATA

APPEARANCE

SPETEC® STOP HF300 (Highfoamer), Uncured (Appearance: brown liquid)		
Viscosity at 25°C	Brookfield SP3 - 200 rpm	± 215 mPa.s
Density	EN ISO 2811-1	± 1,12 kg/dm ³

SPETEC® Gen Acc, Accelerator voor SPETEC® STOP HF300 (Highfoamer) (Appearance: yellow - orange liquid)		
Viscosity at 25°C	Brookfield SP3 - 200 rpm	± 75 mPa.s
Flash point		156°C.
Density	EN ISO 2811-1	± 1,05 kg/dm ³

SPETEC® Gen Acc Fast, Accelerator voor SPETEC® STOP HF300 (Highfoamer) (Appearance: yellow - orange liquid)		
Viscosity at 25°C	Brookfield SP3 - 200 rpm	± 70 mPa.s
Flash point		156°C.
Density	EN ISO 2811-1	± 1,05 kg/dm ³

REACTION TIMES

SPETEC® Gen Acc	5°C			15°C			25°C		
	%	Start	End	Start	End	Start	End	Start	End
5	18"	95"	40V	18"	78"	40V	14"	55"	49V
8	15"	60"	42V	14"	51"	42V	10"	43"	49V
10	15"	48"	42V	11"	41"	42V	8"	35"	49V

SPETEC® Gen Acc Fast	5°C			15°C			25°C		
	%	Start	End	Start	End	Start	End	Start	End
5	19"	75"	42V	14"	57"	45V	9"	43"	49V
8	15"	40"	42V	10"	35"	45V	7"	30"	49V
10	10"	35"	42V	8"	28"	45V	5"	22"	49V

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



Approved for contact with drinking water.

PACKAGING

SPETEC® STOP HF300 (Highfoamer)	20 kg	Pails	24 pails/pallet
	200 kg	Steel drums	4 drums/pallet
SPETEC® Gen Acc	0,5 kg	Plastic Bottles	12 bottles/box 40 boxes/pallet
	2 kg	Plastic Bottles	4 bottles/box 44 boxes/pallet
	20 kg	Pails	24 pails/pallet
SPETEC® Gen Acc Fast	2 kg	Plastic Bottles	4 bottles/box 44 boxes/pallet

STORAGE AND SHELF LIFE

SPETEC® STOP HF300 (Highfoamer) 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: 24 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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