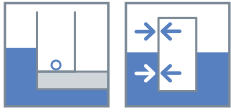


SPETEC® ITS

INJECTION TUBE SYSTEM FOR THE WATERPROOFING OF CONSTRUCTION AND COLD JOINTS.



DESCRIPTION

SPETEC® ITS is an injection tube system that allows injection of cold and construction joints via a pre-installed injection canal. SPETEC® ITS is placed in the joint during construction. It acts as a canal for the injection resin which will, when in contact with water, expand and seal the joint permanently.

ADVANTAGES

- Easy to install
- No special tools required.
- Complete system, delivered with all necessary accessories.
- The hose can be adjusted to the correct length on site.
- Due to the metal spiral core the hose keeps its inner diameter when bended.
- Low pressure injection possible.
- Can be injected preventatively or when leakages actually occur.
- After injection the joint is permanently sealed.
- Injection is done continuously over the porous surface of the tube, not via points or slits resulting in a more even distribution of the resin in the joint.
- No leak, no injection necessary.
- There is no interruption of the construction activities when SPETEC® ITS is installed.
- Can be combined with other preventative waterproofing systems like swelling bars and PVC water stops.

FIELD OF APPLICATION

- SPETEC® ITS is installed in construction joints in concrete, pipe penetrations and voids between secant piles walls and slabs, ...
- Joints between old cured concrete and fresh concrete to be poured.

APPLICATION

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

PRELIMINARY ANALYSES

In most cases, no preliminary analyses are required for the installation of the SPETEC® ITS.

REQUIRED TOOLS

No special tools are required to install the SPETEC® ITS.

PREPARATION OF THE SUBSTRATE

Clean the surface of the cured concrete on which the SPETEC® ITS will be installed. If the surface is too rough, level it out with SPETEC® WT400.

PREPARATION OF THE PRODUCT

Cut the SPETEC® ITS to the required length depending on the actual length of the joint. The maximum length of the hose should not be more than 6 meter. Make sure the cut edges are smooth. At both ends, screw the elbow pieces onto the SPETEC® ITS tube. Cut the reinforced injection tube to the appropriate length and connect it to the other end of the elbow piece. Seal the end of the PVC injection tube by using the sealing caps.

APPLICATION

Place the SPETEC® ITS over the joint and secure it with the metal clips. Nail the clips about every 30 cm. Make sure that the injection hose is in contact with the concrete surface over its full length. Make sure that at the overlaps of 2 hoses there is a distance about 2-3 cm between the hoses to avoid contamination during injection. The PVC injection tube can be connected to the reinforcing bars with steel wires or can be rolled up into a plastic box that will be encased in the concrete. The distance between the injection hoses at the overlap should not be more than 7 cm. There must be a minimum of 7 cm concrete cover on both sides of the SPETEC® ITS injection hose.



FINISHING

SPETEC® ITS can be injected with SPETEC® SEAL F400, SPETEC® STOP H100 or SPETEC® SEAL GT350. The injection tube system can be injected preventatively or when leakages actually occur. For injecting the SPETEC® ITS a pump is needed. This pump can be manual, pneumatic or electric.

Remove the sealing caps. Before injection, make sure you have the correct in-and outlet of the hose. This can be verified by injecting water into the presumed inlet and check where the hose outlet is located.

Prepare the resin according to the information provided on the respective Technical Data Sheet. It is recommended to inject water in the hose first. This to make sure there is enough water present in the joint so the resin can react. Use separate injection pumps to inject the water and the PUR resin.

Use conical packers to connect the pump to the injection tube outlets. Connect a conical packer to the inlet of the injection tube. Make sure the packer is well secured in the reinforced PVC tube.

Connect the pump to the packer and start injecting the tube. This can be done at low pressure. If there is water inside the SPETEC® ITS, this will come out at the other end of the tube.

When resin starts to come out on the other side of the SPETEC® ITS, close the outlet by blocking the PVC tube with a clamp. Gently increase the pressure on the pump so the resin can flow from the tube into the joint. When the joint is saturated with resin, stop the pump and close the inlet of the injection tube with a clamp. Allow the resin to fully react before removing the clamps of the injection hoses.

APPLICATION CONDITIONS

Avoid injections at temperatures below -20°C. It is recommended to warm the resin and the accelerator slightly when used in extremely cold conditions.

CLEANING AND MAINTENANCE

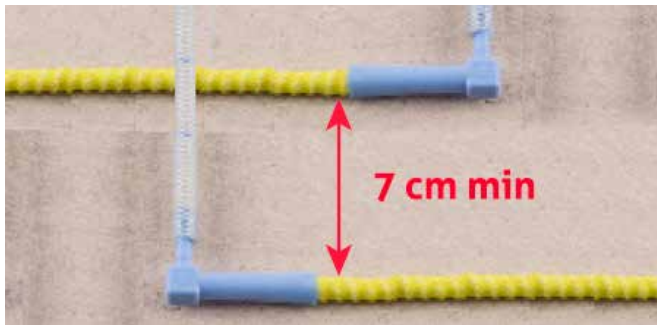
After injection clean all equipment and tools with SPETEC® PUMP CLEANER. In case of doubt contact one of the SPETEC® technicians.

COMPLIMENTARY PRODUCTS

Appropriate injection resin SPETEC® SEAL F400, SPETEC® STOP H100 or SPETEC® SEAL GT350 must be ordered separately. SPETEC® PUMP CLEANER

ADVICE / FOCAL POINTS

SPETEC® ITS can only be installed in lengths of maximum 6 meters. At the overlaps a distance of 7 cm has to be observed between the injection hoses, this to avoid cross contamination during injection.



TECHNICAL DATA

APPEARANCE - COMPOSITION

- A reinforcing steel spiral wire: On the one hand, this ensures that the injection channel is not flattened by the weight during pouring of the concrete and, on the other hand, that the core will retain its diameter when the channel has to be placed in a bend.
- A non-woven filtrating membrane: This prevents the fine cement particles from penetrating the injection channel and also allows the resin to spread evenly over the entire outer surface of the injection channel.
- A synthetic membrane: This is a yellow protective membrane on the outside.
- Anchoring clips
- Blue elbow pieces
- Reinforced PVC tube
- Sealing caps



REACTION TIMES

The reaction times can be found on the technical data sheets of the injection resins.

CONSUMPTION

- 1 Meter injection hose per 1 meter of joint
- 3 Anchoring clips per meter of injection hose
- 2 Elbow pieces per section of injection hose
- 2 Pieces of reinforced PVC tube cut to the appropriate length per section of injection hose
- 2 Sealing caps

TECHNICAL DATA

Property	Value
Outside Diameter	12 mm
Inside Diameter	8 mm
Maximum Length per segment	6 meter
Weight per meter	71 g/m
Filter Pore Diameter	35 µm
Operating temperature	Max. 70°C
Colour	yellow

REFERENCE DOCUMENTS



PACKAGING

SPETEC® ITS is supplied in kits containing all necessary accessories for proper installation. The actual injection tube has to be adjusted on site in lengths of maximum 6 meter.

Injection tube	5 x 6 meter lengths
Reinforced PVC tube	2,5 m
Sealing caps	10 pieces
Elbow pieces	10 pieces
Anchoring clips	100 pieces

Delivery per pallet: 1 pallet contains 40 kits of 30 meters (total = 1200 meter).

Weight per kit	3,35 kg (net)
Weight per pallet	154 kg (net)

STORAGE AND SHELF LIFE

Storage: on pallets, free from the floor.
Unlimited shelf time in a dry place.

SAFETY PRECAUTIONS

Always use personal protection in accordance with locally applicable guidelines. Consult the appropriate safety data sheets before use. Safety data sheets are available at www.spetec.com.
If in doubt, contact the technical department of SPETEC®.

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