



Taian Hongyuan Geosynthetics Co., Ltd

Description:

X-SEAL INJECT is a re-injectable hose system for installation into cold joints under the water table to waterproof and then provide a constant portal into the cold joint to re-inject if required.

The hose is resilient, waterproof, not affected by low temperatures and is chemically inert.

It is constructed as a hard blue body with a longitudinal hole for injection. Four grooves run along the body of the hose with 3mm holes at approximately 10mm centres in the grooves which connect to the injection hole. Neoprene strips cover these holes and act as a non returnable valve which prevents injection material returning during vacuum cleaning for re-injection. These strips are held onto the hose with a mesh sleeve.

Used for

X-SEAL INJECT can be used in all construction joints under the water table such as basements, tunnels, dams, lift wells, reservoirs, sewerage plants, poured pilings, bridge connections or anywhere where a cold concrete joint is susceptible to leaks in the presence of water.

Benefits

- The hose is completely re-injectable so it can be used over and over if leakage persists or is caused by building movement or some other event.
- The hose flexible to follow the contours of the joint and follow corners without cutting or joining.
- The unique 900 connection valve which allows easy, efficient and secure fastening to the delivery hoses and eliminates messy shrink tape which is often prone to failure.

Fabrication

X-SEAL INJECT is simply taped and cut into maximum 10 metre lengths, the unique right angle connection valve is inserted into the hose and the delivery hoses using a construction adhesive.

The delivery hoses are colour coded to identify inlet and outlet during injection.

Placement

The surface of the joint should be clean and free of any surface irregularities. The hose should be installed into the cold joint in approximately the centre of the joint (for thicker sections place the hose approximately 200mm from the water side of the joint).

Place a line of SWELLSEAL JOINTSTOP BR in the cold joint approximately 80mm from



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water side of the joint to prevent loss of the injection material. Fasten the hose to the concrete using the clips provided at approximately 250mm centres along the length of the hose. (Do not fasten the hose to reinforcing steel)

Ensure that the delivery hoses are terminating outside of the structure to allow future access to the hose and that there is at least a metre long length of delivery hose outside the joint to enable easy access to pump. At each intersection, do not cross the injection hoses always cross with a delivery hose and keep the injection hoses at least 50mm from each other. We recommends that the ends of the delivery hoses be housed in a junction box to protect them from damage and that the delivery hose end plugs be securely in place.

Injection

X-SEAL INJECT should only be injected with X-SEAL INJECTION RESIN and all or any warranties are negated with the use of other products. The minimum time before injection after the concrete is poured is 28 days to ensure that the concrete has reached full strength.

Pump using a parastaltic pump which is capable of vacuuming. Always start at one end of the hose with the following procedure. Connect the pump hose to the X-SEAL INJECT delivery hose. Station assistant at the other end of the hose armed with multigrips to close off the hose and a bucket. Fill the hose with X-SEAL INJECTION RESIN by means of the pump until it comes out the other end of the hose. Close the end of the hose with the multigrips and pressurise the X-SEAL INJECT hose between 5-7 bar. From the moment that no material flows into the joint and no, or only slight pressure drop is visible at the gauge, keep the pressure for approx. 5 minutes at 5-7 bar. This is essential to allow the injection material to penetrate into the joint. Sealing is a matter of moderate pressure and longer injection time, and not high pressure and short injection time. Secondly, apply the same procedure as before from the other end of the SWEDLLSEAL INJECT Hose. This is to make sure that there is similar distribution pressure.

Cleaning For Future Re-Injection

Reverse the parastaltic pump and install the pressure equaliser valve. Immerse other end in a bucket of water. Vacuum until water runs clear through the pipe. Repeat this procedure from the other end. Plug ends and store in junction box.



Right angle connection valve



X-SEAL INJECT end view



X-SEAL INJECT holes

Test report of Pre-buried Grouting Pipes

Item	Grouting pipes	Production date	20211210	
Quantity	2000m	Testing standard	GB/T31538-2015	
NO.	Item	Standard	results	comments
1	External diameter(mm)	20	18	
2	Deviation of external diameter(mm)	± 1.0	0	
3	Internal diameter (mm)	8	8	
4	Deviation of internal diameter(mm)	± 1.0	0	
5	Framework and external fabric	No loose or loss	pass	
6	Distance between grouting holes(mm)	≤ 20	20	
7	Diameter of grouting holes(mm)	2-5	3	
8	Permanent deformation of cover material (%)	≤ 10	9	
9	Compressive deformation (mm)	≤ 2	0.26	
10	Low temperature bending property	-10 °C , no cracks	Pass	
11	Appearance	No cracks or holes	pass	

