

CETINJECT

INJECTION HOSE WATERSTOP SYSTEM FOR POLYURETHANE GROUTING

DESCRIPTION

CETINJECT is a waterstop injection system consisting of an 11 mm (7/16") diameter hose that functions as a delivery channel for CETCO AKWASEAL waterproofing resins that are injected into the structure after concreting is completed; thus sealing the interfaces and voids within concrete construction joints. Equipped with perforated pvc inner tube with holes, constructed to withstand pressures of freshly placed concrete. Covered by two woven membranes to protect the inner tube from the entry of cement particles (filter, membrane one) and abrasive effects of the concrete aggregates (protector, membrane two).

APPLICATIONS

CETINJECT injection hose is suitable for single injections to seal joints against hydrostatic and non-hydrostatic water conditions. Typical applications include installing the tube system where concrete walls and slabs will join. Additionally, the CETINJECT system can be used with new to existing concrete and around large penetrations.

INSTALLATION

Assembly: Cut the CETINJECT tube to required length, at a maximum 9.2 m (30'). In order to prepare the tube for resin injection at a later date, each section must have one reinforced PVC injection sleeve attached to each end. PVC injection sleeves are installed by pulling the end with the larger diameter as far as possible over each end of the Inject Tube. Inject Screws with Zerk fittings can be attached to the sleeves now or at a later time prior to injection by screwing them clockwise into the sleeve opening. Proper length of tube is now ready for installation.

General: The injection tube, with the adapted end sleeves, is to be fastened directly to the concrete surface or to existing rebar in a fashion that the tube has continuous contact with the surface. Sweep concrete to remove any

material that may interfere with direct contact between the tube and the surface. Position the tube as required and use clips or rebar and wire to keep the tube in place. Clips may be nailed or glued with epoxy a maximum of 300 mm (12") apart or as necessary to maintain consistent contact of the injection tube with the concrete. Tension on the tube must be sufficient as not to allow Tube to shift during concrete pour.

Note: Continuous contact between injection tube and surface is essential for the system to work. Thorough preparation is the key to successful results, provide a weather-proof covering on top and all sides (allow for adequate ventilation).

If continuous lengths of cold joint are in excess of 9.2 m (30'), two or more sections of Inject Tube have to be installed. Adjacent Injection Tube segments shall overlap 300 mm (12") in tight contact to ensure continuous resin injection. PVC injection sleeves shall exit the face of the concrete at a ninety degree angle. The black colored connection piece must be embedded a minimum of 75 mm (3") inside concrete face to allow high injection pressures without any failure to the connection. End piece shall protrude past concrete face 25 mm - 75 mm (1" - 3") to allow access for future resin injection. After stripping forms, PVC injection sleeves must remain clearly visible in order not to complicate or prohibit injection.

Injection: After the concrete has been placed and cured for a minimum of 28 days, injection screws shall be attached to one end of the injection sleeve and water shall be injected through the tubes to verify continuity. The quick release Zerk coupler allows for easy connection to the pressure grout line. Injection pressures may range between 10 to 1000 psi. Grout shall be injected under low pressure until it leaks out from the distant end of the tube thereby replacing the water. Immediately the opening should be closed with an injection screw and the injection process should continue. It is desired to see material penetrating from the cold joint as the injecting process progresses. Continued penetration of material from the injection end of the tube to the far end is a good indicator for complete injection but will not always be achieved. There may be extremely tight sections in the cold joint or sections of materials adhesion where resins cannot penetrate. In any case material consumption and injection pressures should be closely monitored as an indicator for material flow, injection progress and injection success. Please review the Technical Data Sheets associated with CETCO AKWASEAL resins for more information on catalyzation ratios and gel times.



CETINJECT INJECTION HOSE WATERSTOP SYSTEM FOR POLYURETHANE INJECTION

Consumption: Consumption of injection grout is determined by two factors. One: product consumption to fill the tube. This amount is very low at a rate of approximately one quart of material per 45 m (150') of tube. Two: Consumption to seal cold joint / joint. Thickness of the structure, joint width, and proper concrete consolidation determine the amount of product needed. Altogether the total consumption of product in CETINJECT is similar to grout use by injection with packers alone.

PACKAGING

CETINJECT kits contain the following:

- 33 m (108') CETINJECT tubing
- 10 pcs - 600 mm (24") Injection Sleeves
- 10 pcs - Injection Screws
- 120 pcs - Clips

STORAGE

Store in a cool, dry place and protect against mechanical damage.

TECHNICAL DATA	
TYPICAL PROPERTIES	TYPICAL VALUE
Profile	Round
Color	Orange
External Diameter	11 mm (7/16")
Internal Diameter	6 mm (1/4")
Length Between Perforations	22 mm (7/8")
Perforations are arranged along the entirety of the CETINJECT tubing	

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