

# KingInject<sup>®</sup> RH

**Injection hose for protection against potential and active leak in construction and cold joint in concrete.**

## DESCRIPTION

KingInject RH is a flexible, double walled PVC hose specially designed to be installed in concrete construction joints to waterproof them and to seal any cracks or voids in the joint sections.

The smart design of the double walled system of KingInject RH allows an easy grout flow from the hose and prevents the grout from re-entering the hose after injection. KingInject RH can be used for several re-injection process and it represents an excellent maintenance solution for any leaks may occur in future.

## APPLICATIONS

KingInject RH injection system has been designed to prevent passage of water through concrete joints:

- 🔧 Construction and cold joints.
- 🔧 Water excluding structures; e.g subways and tunnels.
- 🔧 Water retaining structures; e.g. canals, dams and reservoirs.
- 🔧 Sewage treatment plants.
- 🔧 Below ground concrete construction; e.g around pile heads and basements.

## ADVANTAGES

- 🔧 Economic - Reinjection option prevents leaks caused by settlement or structural movement.
- 🔧 Non destructive - No drilling or damage to the concrete.
- 🔧 Ease of use - Simple installation even at complicated details.
- 🔧 Proven and predictable performance.
- 🔧 Maintenance free system.
- 🔧 Verifiable - testing of joints for water-tightness before installation of membrane or back filling.
- 🔧 Smooth surface avoids bonding between injection hose and concrete.
- 🔧 Hose suitable for operation under high or low injection pressure.

## METHOD OF USE

### Surface Preparation

All concrete surfaces should be clean, sound and free from dust, loose particles, unsound materials and any other contaminants. Ensure that the concrete age is not less than 28 days prior to commencing injection.

## TECHNICAL PROPERTIES

	KingInject RH No. 6/11	KingInject RH No. 11/19
Material:	PVC	PVC
Internal dia*:	6 mm	11 mm
Injection opening*:	Green	Green
Discharge opening* (outer-hose):	5 mm	10 mm
Slots, inner hose*:	Every 20 mm, roated by 90°	
Typical uses:	General purpose	Tunnels or large voids in concrete
Typical injection length:	10 - 12 m	12 - 15 m
Injection material:	Resins,acrylates, fine cement, micro-fine cement	Resins,acrylates, fine cement, micro-fine cement, portland cement

*\*Subject to standard manufacturing tolerances.*

## Assembly

KingInject RH consists of an injection hose as well as inlet and outlet vents, these vents allow for injection and each vent is in a different colour (white or red) for ease of identification. The injection hose length shall not exceed 15 m length; typically it should be 10 - 12 m length. Connect 200 mm hose tails to the both ends of KingInject RH and seal them with heat shrink tubing.

## INSTALLATION

The hose should be placed at the middle of the cold joint, provided that the concrete cover should not be less than 80 mm. KingInject RH shall be totally in contact with the concrete surfaces and secure in place using proper hose clamps at 15 to 20 cm intervals.

Usually, the hose tails are inserted into small plastic boxes secured to the reinforcement bars. During concrete pouring, the injection hose shall not be disturbed and the heat shrunk and hoses tail should be embedded into the concrete, only the vent ends should be visible after pouring the concrete.

However, they should be protected using sealing clips at the end of vent hoses to ensure that no concrete will penetrate into the hose.

## INJECTION

## KingInject<sup>®</sup> RH

vent hose, remove the sealing cap and fix suitable injection nipples and accessories. The following steps should be followed in sequence:

- ☐ Fill the hose with injection material using injection pumps until flow is observed at the other end (white hose).
- ☐ Plug the end.
- ☐ Pressurise the KingInject RH injection hose.

Maintain the pressure for 5 minutes after the material has been injected with no pressure loss observed in order to ensure that the material has penetrated the joint.

It is recommended to repeat the same procedure from the other end to ensure even distribution along the length of the joint. Normally one injection is enough to completely seal the joint. However this depends on the quality of the concrete and/or the water pressure.

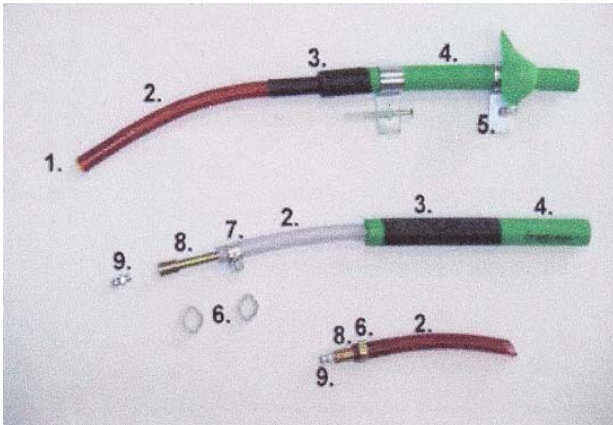


# KingInject<sup>®</sup> RH

## KingInject RH Estimation of Accessories

KingInject RH : 6/11	
1 roll of 6/11 (100 LM / roll)	10 stretches (based on 10 m)
Ventilation Hose Red: (50 Lm / roll)	100 Stretches / Roll (Based on 50cm)
Ventilation Hose White: (50 Lm / roll)	100 Stretches / Roll (Based on 50cm)
Hot Shrinking Hose (30 Lm / Roll)	75 Stretches / roll
Sealing Plug Yellow (piece)	2 Pieces / Stretch
Hose Clamp with Dowel (Piece)	50 Pieces / Stretch
End Box (Piece)	12 Pieces for 10 Stretches

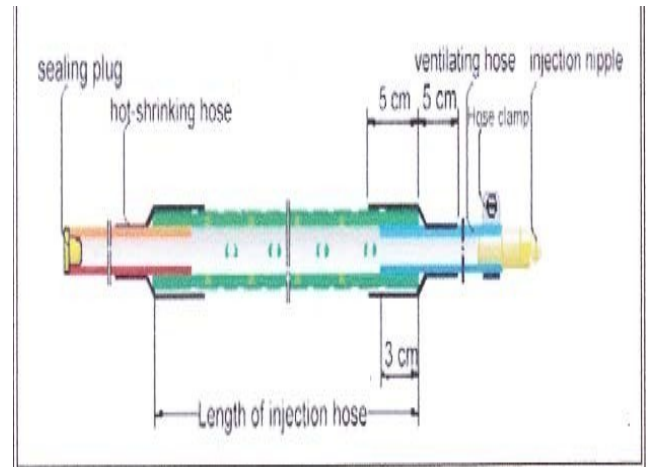
Optional items include 2 injection nipples per stretch at the time of injection and an additional 2 hose clamps / stretch.



1. Sealing plug yellow.
2. Ventelating hose red / white
3. Hot shrinking hose.
4. KingInject RH - 11/19
5. Hose clamp with dowel / without dowel.
6. Binaural clamp
7. Hose clamp
8. Pressing nipple
9. Injection nipple

## KingInject RH Estimation of Accessories

KingInject RH : 11/19	
1 roll of 11/19 (100 LM / roll)	8 stretches (based on 12.5 m)
Ventilation Hose Red: (50 Lm / roll)	100 Stretches / Roll (Based on 50cm)
Ventilation Hose White: (50 Lm / roll)	100 Stretches / Roll (Based on 50cm)
Hot Shrinking Hose (30 Lm / Roll)	75 Stretches / roll
Sealing Plug Yellow (piece)	2 Pieces / Stretch
Hose Clamp with Dowel (Piece)	50 Pieces / Stretch
End Box (Piece)	10 Pieces for 8 Stretches



## PACKAGING

KingInject RH is available in 100 m rolls.

## STORAGE

Shelf life is 1 year when stored under cover, out of direct sunlight and protected from extremes of temperature.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult KingKrete's Technical Services Department.

## HEALTH AND SAFETY



# KingInject® RH

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use. Use in well ventilated areas and avoid inhalation.

## NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local KingKrete representative.

KingKrete Inc. reserves the right to have the true cause of any difficulty determined by accepted test methods.

## QUALITY AND CARE

All products originating from KingKrete's manufacturing facilities are manufactured under a management system independently certified to conform to the requirements of the quality standard ISO 9001.

\* Properties listed are based on laboratory-controlled tests.

® = Registered trademark of the KingKrete-Group in many countries.

### R3-2601

#### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this KingKrete Inc. publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

#### NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by KingKrete Inc. either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not KingKrete Inc. are responsible for carrying out procedures appropriate to a specific application.

