

# KingSwell<sup>®</sup> Seal

One component hydrophilic sealant.

## DESCRIPTION

KingSwell Seal is a grey, elastic water-swellaible paste which is applied like a sealant. The hydrophilic properties of KingSwell Seal display good consistency in swell rate during repeated wet/dry cycling. Expansion of the product on contact with water creates a positive pressure against the faces of the concrete joint, thus preventing the passage of water.

## APPLICATIONS

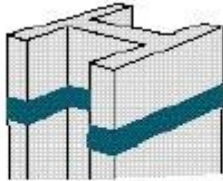

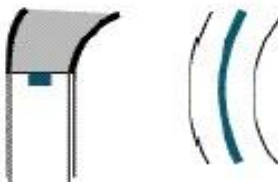
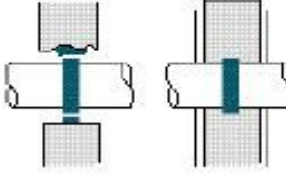
- KingSwell Seal can be used as an adhesive for bonding KingSwell strips or as problem-solving hydrophilic in difficult access areas including sealing around joints in pre-cast manhole covers cable ducts and pipe, etc.
- Sealing around pre-cast segments.
- Sealing between rough surfaces, e.g. slurry walls and concrete slabs.
- Sealing around H-beams and other penetration through concrete structures.
- Sealing around conventional rubber and plastic waterstop to provide belt and braces seal prior to concrete pour.
- Sealing in water towers and water storage tanks.

## ADVANTAGES

- Fast curing – Enables early concrete pour and rapid return to service.
- Excellent seal on rough concrete: Gives improved water tightness.
- Excellent adhesion – Quick and easy to apply to a variety of damp and uneven joint surfaces remaining firmly in place during concrete pour.
- Water swellable – Expands by 100% producing a watertight compression seal.
- Durable – Excellent wet/dry cycling retaining elastic character and swelling performance due to high tolerance of the cementitious environment.
- Sustain effective seal in submerged environment.

## TECHNICAL PROPERTIES

Form:	Elastic water-swellaible paste
Colour:	Grey
Specific gravity: ASTM D71	1.30
Tack-free time:	≈ 1 hr
Application temperature:	5 - 40°C
Cure rate:	3 mm in 24 hr
Expansion volume:	100%
Concrete pour:	Allow between 2 - 8 hr

<p><b>H type steel surround</b></p> <p>No gaps are formed at corner Installation is simple</p>	
<p><b>Concrete installation joint</b></p> <p>Installation is possible at rough surface</p>	
<p><b>Tunnel construction joint</b></p> <p>Easy to installation Good finish</p>	
<p><b>Piping Sleeve</b></p> <p>Bars can be installed up to the pipe surrounds so as to form one wall</p>	

# KingSwell® Seal

## LIMITATIONS

- ☐ KingSwell Seal should not be used for expansion jointing or for joints subject to significant repetitive movements.
- ☐ KingSwell Seal will establish a firm bond to the concrete however, as with any hydrophilic waterstop; care should be taken during concreting to avoid pouring directly onto the seal.
- ☐ KingSwell Seal should be protected from heavy rainfall whilst curing to prevent premature expansion.
- ☐ Do not leave KingSwell Seal immersed prior to concrete placement.

## METHOD OF INSTALLATION

- ☐ Cut conical tip off cartridge end-thread, screw on nozzle and cut to required size. Place KingSwell Seal into sealant gun and apply like a conventional sealant.
- ☐ Ensure a minimum of 70 mm concrete cover to accommodate pressure developed during the swelling process.
- ☐ Extrude a bead of not less than 15 mm diameter onto the substrate, ensuring that there is no break in the bead.
- ☐ After application, a minimum of 2 to 8 hours should be allowed before applying precast concrete elements and 24 hours for large concrete pours.

## PACKAGING

300 ml/cartridge.

## COVERAGE

Each 300 ml gun cartridge will provide enough material for approximately 1.7 m when gunned to form a constant 15 mm diameter bead.

## 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

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 Qatar facility 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

## KingKrete-Qatar/KingSwell\_Seal\_02/v2/07\_18

### 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.

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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.