

# KingProof<sup>®</sup> Tape

High performance waterproof jointing system.

## DESCRIPTION

KingProof Tape is a highly elastic, hydrophobic and chemically resistant TPO (Thermal-plastic Polyolefin) material used in conjunction with KingRep EP10/20 as an epoxy adhesive to seal joints and cracks having large movement capability.

## APPLICATIONS

KingProof Tape is designed to seal construction joints, expansion/contraction joints and cracks even in damp condition and will remain flexible at low temperatures.

KingProof Tape may be used to seal joints and cracks in water retaining structures and especially in places subjected to chemical contamination such as bund areas.

## ADVANTAGES

- ☐ Exceptional adhesion on all common building materials
- ☐ Easy application.
- ☐ Easy repair.
- ☐ Economic solution.
- ☐ Permanently elastic, even at low temperatures.
- ☐ Seals large and small irregular joints, even with high movement.
- ☐ Resists many chemicals.
- ☐ Ozone resistant.
- ☐ Non-toxic, approved for contact with potable water.
- ☐ No priming.

## STANDARDS

KingProof Tape is suitable for use in contact with potable water when tested in accordance to BS 6920.

## METHOD OF USE

### Joining Systems

To form a continuous joint of KingProof Tape, conventional heat welding with hot-air-dryers should be used. It is important to select a low temperature setting (approximately 1500 watt/340°C) so that only the surface of the tape melts in order not to affect the tightness of the product.

Parts to be welded should be roughened or sanded.

## TECHNICAL PROPERTIES

Colour:	Grey
Density:	0.93 kg/m <sup>2</sup>
Shore A hardness	90 ± 5
Tensile strength: ASTM D412	≥ 12 MPa
Elongation at Break: ASTM D412	≥ 600%
Bond Strength: * ASTM D4541	≥ 4 MPa
Tear Strength: ASTM D624, Die C	≥ 60 N/mm
Resistance to water pressure: DIN EN 1928-B	≥ 4 bars

*\* Bond strength achieved using KingRep EP10/20 over C50/60 concrete substrate, other results may be achieved using a different adhesive or concrete grade.*

### Surface Preparation

To obtain a satisfactory bond, concrete must be structurally sound with a clean surface, free from dust, laitance, oils, paint or other contamination.

Mechanical preparation should be used to remove laitance and surface contamination. Metal surfaces should be thoroughly degreased and grit blasted to reach a bright finish meeting the requirement of swedish standard SA 2 ½.

### Mixing

KingRep EP10/20 comprises two components, a resin base and hardener, which is supplied, pre-weighed in the correct proportions. Under no circumstances should part mixing be carried out.

When required for application, the two components should be mixed well until a uniform consistency and colour are obtained, this should ideally be carried out using a mechanical mixer.

In cold weather, mixing will be aided if the containers are stored in a warm environment before use.

# KingProof<sup>®</sup> Tape

## APPLICATION

- 1. Prepare joint and surrounding surface in excess of the KingProof Tape to be used.
- 2. Apply masking tape onto joint/crack and to outer edges of area to receive KingProof Tape.
- 3. Apply the epoxy adhesive to the prepared surface on each side of the joint/crack at 1 - 2 mm thickness.
- 4. Position KingProof Tape firmly into the coated surface by rolling under pressure, ensuring the epoxy adhesive is forced through edge perforation.
- 5. Apply a top coat of the epoxy adhesive over membrane width at 1 - 2 mm thick, extending surplus to approximately 20 mm outer the membrane sides.
- 6. Remove outer masking tapes before curing. Feather the edges if necessary.

## CURING

After the KingProof Tape application has been carried out, it should be allowed to cure and harden for 24 hours at 20<sup>0</sup> C before allowing any trafficking over the joint.

## CLEANING

Clean uncured KingRep EP10/20 with KINGKRETE Solvent. Cured material can only be removed mechanically.

## PACKAGING

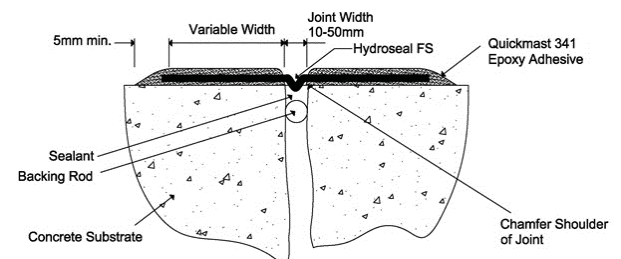
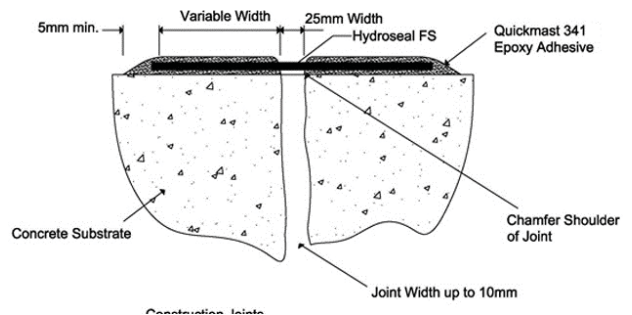
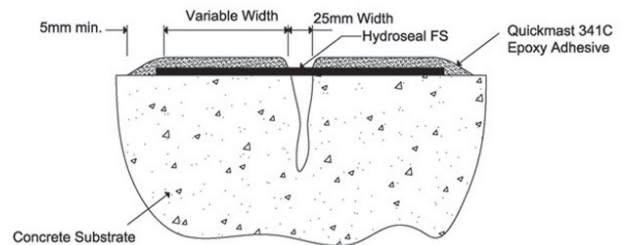
KingProof Tape1510: 150 mm x 1 mm (20 m/Roll).  
 KingProof Tape2010: 200 mm x 1 mm (20 m/Roll).  
 KingProof Tape2510: 250 mm x 1 mm (20 m/Roll).  
 KingProof Tape3010: 300 mm x 1 mm (20 m/Roll).  
 KingProof Tape1520: 150 mm x 2 mm (20 m/Roll).  
 KingProof Tape2020: 200 mm x 2 mm (20 m/Roll).  
 KingProof Tape2520: 250 mm x 2 mm (20 m/Roll).  
 KingProof Tape3020: 300 mm x 2 mm (20 m/Roll).

*Other sizes are available on request.*

## CHEMICAL RESISTANCE

Tests were carried out after storage over 28 days @ room temperature:

Hydrochloric Acid 3%	Resistant
Sulphuric Acid 35%	Resistant
Citric Acid 100 g/ltr	Resistant
Lactic Acid 5%	Resistant
Potassium Hydroxide 3%	Resistant
Potassium Hydroxide 20%	Resistant
Sodium Hypochlorite 0.3g/ltr	Resistant
Salt Water (20 g/ltr Sea Water Salt)	Resistant



# KingProof® Tape

Water pressure	Movement	Joint width		
		Up to 50 mm	50 - 75 mm	75 - 100 mm
Positive water pressure < 1.5	0 mm	FS 1510	FS 2010	FS 2010
	Up to 20 mm	FS 1510	FS 2010	FS 2010
	Up to 50 mm	-	FS 2510	FS 3010
Positive water pressure ≥ 1.5 bars	0 mm	FS 1520	FS 2020	FS 2020
	Up to 20 mm	FS 1520	FS 2020	FS 2520
	Up to 50 mm	-	FS 2520	FS 3020

*Note: Consult KINGKRETE's Technical Department for the best tape size under negative water pressure conditions.*

## 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/KingProof\_Tape\_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.

### 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.