KINGKRETE®
We Create Future

KingSeal® PF100

High performance, cold applied, pitch-free modified polyurethane joint sealant.

DESCRIPTION

KingSeal PF100 is an elastomeric two-component, cold applied, pitch-free modified polyurethane sealant which cures chemically to form a durable and flexible joint sealant.

KingSeal PF100 is designed for use with all types of horizontal concrete joints internally and externally. KingSeal PF100 is also fuel and oil resistant making it ideal for sealing pavement joints in all climates.

APPLICATIONS

- For sealing all types of joints in car parks, traffic decks.
- For sealing of all types of joints in warehouses, oil terminals, docks and harbors.
- For sealing all types of joints in airports runways and aprons.
- Concrete expansion and construction joints.
- Ideal for horizontal joints.

ADVANTAGES

- Pitch free.
- Cold applied, chemical curing sealant.
- Weathering and UV resistant.
- Excellent adhesion to most substrates.
- Fuel and oil resistant.
- Excellent movement accommodation in butt and lap joints.
- Easy to apply, pourable and self-leveling sealant reducing waste.
- Good chemical resistant to wide range of mild alkalis, diluted acids and solvents.

STANDARDS

- KingSeal PF100 complies with the requirements of:
- ASTM C920, Type M, Grade P, Class 25, Use NT, T ,M and I.
- British standard 5212:1990, Type N,F,and FB.
- US Federal Specification SS-S-200E:1984.

METHOD OF USE

Substrate Preparation

All surfaces should be cleaned of all dirt, laitance, bitumen, oil, grease, dust or any foreign maters and curing compounds. Concrete surfaces must be sound, dry, dimensionally stable and fully cured (not subject to shrinkage).

After cleaning, a backer rod of an appropriate size should be placed in the joint to the required depth.

TECHNICAL PROPERTIES

Shore A hardness:	25 ± 5
Solid content:	100%
Colour:	Black or grey
Mixed density:	1.45 ± 0.05 g/cm³
Pot life:	80 - 90 min
Movement accommodation:	25% for butt joints
Minimum application temperature:	5°C
Tack free time:	5 hr
Elongation at break: ASTM D412, Die C	≥ 280% @ 7 days
Tensile strength: ASTM D412, Die C	≥ 0.5 MPa @ 7 days
Service temperature:	-40 to 90°C
VOC:	< 50 g/ltr (complies with LEED)

CHEMICAL RESISTANCE (Repeated spillage)	
Brake Fluid	Resistant
Diesel	Resistant
Kerosene	Resistant
White spirit	Resistant
Petrol	Resistant
Xylene	Resistant
Oleic acid	Resistant
Hydraulic oils	Resistant
Dilute acids	Resistant
Mineral oils	Resistant

Care should be taken to ensure not puncturing the backer rod during installation as puncture in the backer rod might create bubbling.

PRIMING

All joints should be primed with KingSeal Primer Universal to ensure good bond of the applied sealant to the concrete or asphalt substrate. Using a small brush apply one thin coat at the joint sides and avoid over priming. Apply the mixed KingSeal PF100 sealant while the primer is still tacky to achieve optimum adhesion strength.

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MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. KingSeal PF100 is supplied in two components, Part A and Part B. The full quantity of the two components must be mixed thoroughly for 3 – 5 minutes.

PLACING AND FINISHING

The mixed sealant shall be applied directly into the primed joints using an air powered sealant gun or a suitable pump system with a 5:1 mixing ratio by volume.

KingSeal PF100 is self-levelling and does not require finishing, apply the sealant with a continuous, smooth action starting at the bottom of the joint to the top. sealant must be filled with a suitable recess; as insufficient recess can expose the sealant to vehicle tire which might damage the sealant with time.

CLEANING

All equipment should be cleaned immediately after finishing by thinner. Hardened sealants can be removed mechanically.

PACKAGING

KingSeal PF100 is available in 4 and 12 litre packs. KingSeal Primer Universal is available in 1, 4 and 20 litre packs.

SEALANT QUANTITY ESTIMATOR

Joint size mm	Meters per litre
10 x 10	10.00
13 x 13	5.91
15 x 15	4.44
20 x 10	5.00
20 x 20	2.50
25 x 12	3.33
25 x 25	1.60
30 x 15	2.22
30 x 30	1.11

JOINT SIZE SUITABILITY

Joint width*:

- 10 mm (minimum).
- 50 mm (maximum in trafficked areas).

Joint depth:

- 10 mm minimum.
- 25 mm maximum.

Width: Depth ratio**

- 2:1

* For wider joints please consult KingKrete Technical Department.

**Within above min/max restrictions.

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.

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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 Middle East facility are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, ISO 14001 and ISO 45001.

* Properties listed are based on laboratory-controlled tests.
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STATEMENT OF RESPONSIBILITY

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NOTE

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