

KingDeck® XL

Solvent free polyurethane car park system.

DESCRIPTION

KingDeck XL is a hard wearing, solvent free, modified polyurethane coating system primarily designed for use in car parks.

APPLICATIONS

KingDeck XL is designed for use in applications, such as:

- ☐ Car park decks.
- ☐ Car park ramps and turning circles.
- ☐ Traffic aisles and parking bays.
- ☐ Workshops.
- ☐ Aircraft hangers, garages and service centers.

ADVANTAGES

- ☐ Excellent chemical resistance.
- ☐ Excellent resistant to petrol, diesel and brake fluid.
- ☐ Resistant to de-icing.
- ☐ Semi-flexible, can bridge minor cracks.
- ☐ Water tight.
- ☐ Comes in a variety of standard colors.
- ☐ UV resistant. Slight color change may occur under direct sunlight without affecting the performance.

METHOD OF USE

Surface Preparation

To obtain a proper bond the substrate must be structurally sound clean, dry (less than 75% RH measured using a hygrometer, unless it is a suspended deck free to dry from below) and free from dust, laitance, oils, paints or other forms of contamination. Grit blasting, grinding or scarification can be used to remove laitance and surface contamination.

Areas known to have been subject to heavy contamination should be thoroughly inspected before applying KingDeck XL Primer. This is especially important where deposits of oil or grease have collected.

Any irregularities within the substrate should be made good before the application of the Prime coat. Small defects may be made good using Quickmast 341. For the expansion joints in the substrate needs to be taken under consideration. Where suitable joint sealant is needed to be filled in these areas.

TECHNICAL PROPERTIES FOR KINGDECK TOP COAT @ 25°C:

Mixed density: ASTM D1475	1.15 gm/ cm ³
Over coating time: ASTM D1640	Within 24 hrs.
Pot life: ASTM D2471	120 mins.
Initial cure:	24 hrs.
Full cure: ASTM D1640	7 days
Compressive strength: BS6319, Part 2:1983	> 50 MPa
Flexural strength: BS6319, Part 3:1990	> 40 MPa
Tensile strength: BS6319, Part 7:1985	> 25 MPa
Bond strength:	2 MPa (concrete failure)

Mixing

KingDeck XL Primer comprises two components, a resin and a hardener which are supplied pre-weighed in the correct proportions. Under no circumstances should part mixing be carried out.

Care must be taken to ensure that the bottom and sides of the cans are thoroughly drained. Transfer the entire contents of the color into the base, mix until achieve a uniform color, then add the hardener. Using a power mixer attached to a slow speed electric drill, mix for approximately 2 minutes, scrape down and re-mix for a further 1 minute, avoiding the entraining of excessive air, until a uniform consistency is obtained. Allow to stand for 1 minute.

Application

Once mixing is complete, spread the KingDeck XL Primer onto the floor using a medium pile roller at a rate of 0.2- 0.25 kg/ m² ensuring it is worked well into the surface. Whilst KingDeck XL Primer is still wet, fully blind with Anti-slip Aggregate #3 at an estimated coverage rate between 0.5 – 0.8 kg/m², allow to set with all excess aggregates being removed before a further application.

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TOP COAT

Using a brush or short haired roller, apply top coat of KingDeck XL to the primed Anti-slip surface at an application rate of 0.3 - 0.4 kg/ m². For smooth surfaces coverage will be 0.2 - 0.25 kg/ m²/ coat to give a dry film thickness of 175 - 220 microns.

LIMITATION

KingDeck XL system should not be applied onto surfaces known to suffer from damp rising or RH greater than 80%.

KingDeck XL should not be applied at temperatures below 8°C.

For temperatures above 35°C the following steps need to be done:

- ☐ Material needs to be stored in a cool place away from direct sunlight.
- ☐ Equipment to be into direct contact with the material, needs to be cool.
- ☐ Application during the coolest time of the day is preferable.
- ☐ Site preparation for the whole application process is important so as to have continuous application process.

CLEANING

Tools and equipment can be cleaned with KINGKRETE-Solvent. Dried KingDeck XL may be removed mechanically.

PACKAGING

KingDeck XL Primer is available in 5 kg packs.
KingDeck XL TC is available in 5 kg packs (4.4 liters) and 15 kg packs (13.3 liters).
Anti-slip Aggregates #3 is available in 25 kg bags.

COVERAGE

KingDeck XL Primer: 0.2 – 0.25 kg/ m².
KingDeck XL TC: 0.35 - 0.45 kg/ m² on Anti-slip surface and 0.2 - 0.25 kg/ m² on smooth surface. Anti-slip Aggregate #3: 0.5 – 0.8 kg/ m².

Chemical Resistance Chart

KingDeck XL will resist spillages of a wide variety of chemicals. And a result of continuous submersion for 7 days can be seen in the following table @ 25°C:

Hydrochloric Acid 36%	Resistant*
Nitric Acid 10%	Resistant*
Phosphoric Acid 20%	Resistant*
Sulphuric Acid 20%	Resistant*
Lactic Acid 10%	Resistant*
Oleic acid	Resistant*
Citric Acid 25%	Resistant*
Sodium Hydroxide 50%	Resistant*
Potassium hydroxide	Resistant*
Sodium Chloride (sat.)	Resistant*
Brake fluid	Resistant*
Engine oil	Resistant*
Kerosene	Resistant*
Ammonia Solution 10%	Resistant*
White spirit	Resistant*
Xylene	Resistant*
Acetone	Resistant*
Chlorinated water	Resistant*
Vinegar	Resistant*
Dead sea water	Resistant*
Diesel	Resistant*

Note: Discoloration does not affect the material physical properties.

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 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.

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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.

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