

# KingFloor<sup>®</sup> C500

## Industrial grade floor topping.

### DESCRIPTION

KingFloor C500 is designed as an industrial grade floor topping for upgrading and renovating new and existing internal floors. KingFloor C500 is supplied as a pre-blended dry powder designed for application between 5 - 15 mm (in one application) to provide a finished industrial floor.

### APPLICATIONS

Suitable for use in a wide range of industrial environments subjected to medium to heavy traffic such as:

- 🏠 Warehouses.
- 🏠 Food processing plants.

### ADVANTAGES

- 🏠 Self-smoothing.
- 🏠 Dimensionally stable.
- 🏠 Fast drying.
- 🏠 Can be pumped to cover an area of 2000 m<sup>2</sup> per day. Alternatively a coverage of 600 m<sup>2</sup> per day can be achieved when hand applied, depending on manpower and equipment used.

### METHOD OF USE

#### Surface preparation

Concrete surfaces must be sound, dry and fully cured (not subject to shrinkage). Any laitance or surface treatments must be removed by mechanical means such as grit blasting. The surface tensile strength of the substrate should be a minimum of 1.5 N/ mm<sup>2</sup>. When applied over KingFloor Base, SHOT BLASTING should be used to remove any laitance followed by vacuuming and priming with KingFloor Primer. If an impervious coating, screed or floor covering is to be used the concrete substrate should be below 75% RH alternatively KingFloor DPM should be applied.

The temperature of the floor must be maintained above 10°C throughout the application and drying of the KingFloor C500.

#### Priming

For application over cement screeds, KingFloor Base, or porous substrates, seal the prepared surface by applying two coats of KingFloor Acrylic Primer diluted with 3 parts of potable water to one part primer and allow to dry. The primer must be allowed to dry before the application of KingFloor C500.

Flow properties using 35cc flow ring: ISO 554	Initial ≈ 130 mm After 15 mins. 110 mm
Workability:	15 min @20°C
Vicat setting time:	1.5 hr @20°C
Foot traffic: Light traffic: Heavy traffic:	10 hrs. @ 25°C 24 hrs. @ 25°C 3 days @ 25°C
*Compressive strength: BS6319, Part 2 : 1983	> 25 MPa @ 7 days > 35 MPa @ 28 days
*Flexural strength: BS 6319, Part 3 : 1990	>5 MPa @ 7 days >9 MPa @ 28 days
Shrinkage (µ/m): ASTM C490-00a	< 500 @ 28 days
<b>Abrasion testing according to SS92 35 08</b>	
After 7 days air cure	< 1 cm <sup>3</sup>
After 7 days immersion in water	< 2 cm <sup>3</sup>
Application thickness:	5 - 15 mm
Bond strength to concrete:	> 1.5 MPa

*\*Note: dry cure.*

For application over all other surfaces including Surface Damp Proof Membranes (SDPM) and non-absorbent surfaces: Prime with undiluted Neoprene Primer to ensure that good adhesion is obtained.

### MIXING

#### Hand Application:

Use a power-whisk fitted in a heavy-duty slow speed electric drill. Mix in the proportion of 25 kg of powder to 4.75 – 5.25 liters of potable water. Pour the water into a suitably sized bucket and gradually add the powder while stirring, until a smooth, lump free consistency is achieved.

#### Pump Application:

Mix the powder and water according to the method recommended by the pump manufacturers. In the case of pumps having a continuous water feed adjust the rate of water flow until the mix is a smooth fluid, uniform grey liquid with no surface separation, producing a flow of approximately 160 mm using a 50 cc flow ring.

### TECHNICAL PROPERTIES

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## APPLICATIONS

Pour or pump the mixed material onto the prepared surface and allow to attain a smooth finish. The use of a spiked roller will help eliminate entrapped air and smooth out flow lines. Apply at a thickness between of 5 - 15 mm in one pass only. It is always better to work in manageable sections of approximately 20m<sup>2</sup>. It is recommended to seal KingFloor C500 with suitable epoxy resin or solvent based acrylic resin sealer, especially when water may come into direct contact with the cured KingKrete base.

## CURING

Curing is not required in normal conditions, but in harsh climatic conditions like direct sunlight, flow of wind, elevated temperatures, etc; freshly hardened concrete surfaces should be cured with damp Hessian or to be covered with polyethylene sheets.

## COVERAGE

KingFloor C500: 2.8 m<sup>2</sup> @ 5 mm thickness for 25 kg bag mixed with 5 liters of clean water.

KingFloor Acrylic Primer when diluted 3 parts potable water to one part primer:

☞ 40 m<sup>2</sup>/ 5 liters.

☞ 200 m<sup>2</sup>/ 25 liters.

## PACKAGING

KingFloor C500 is available in 25 kg bags.

KingFloor Acrylic Primer is available in 5 and 25 liters pails.

## CLEANING

Tools and equipment can be cleaned with water immediately after use.

## PRECAUTIONS

Don't place when the substrate temperature is below 10°C or when the ambient temperature is 10°C and falling.

Protect from frost.

Don't exceed the recommended water content and only use potable water.

This product is not recommended for external use or situations where water may come into direct contact with the cured material.

For hot climate conditions (temperature > 35°C), special procedures should be conducted.

The material should not be used on floors where rising damp is valid, unless a suitable primer is used.

## 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.

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

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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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