KingFloor® C200SL

Cement based self-leveling industrial surface system.

DESCRIPTION

KingFloor C200SL is designed as an industrial grade floor topping for upgrading and renovating new and existing internal floors.

KingFloor C200SL is supplied as a pre-blended dry powder designed for application between 5 mm to 50 mm (in one application) to provide a finished sound floor.

APPLICATIONS

It is suitable for use in a wide range of industrial environments such as Warehouses, food processing plants, industrial floors, car parks, etc.

ADVANTAGES

- Self-smoothing.
- Dimensionally stable.
- Fast drying.
- Can be applied by pump.
- KingFloor C200SL can be pumped to cover an area of 2000 m2 per day. Alternatively a coverage of 600m2 per day can be achieved when hand applied, depending on manpower, thickness applied and equipment used.

STANDARDS

KingFloor C200SL complies with EN 13813, Class CT-C35- F5-AR1.

METHOD OF USE

Substrate preparation

Concrete substrates should be fully cured and achieve a minimum compressive strength of 25 N/mm2 and a minimum pull-off strength of 1.5 N/mm2. The concrete substrate should be below 75% RH and have less than 4% moisture content. Alternatively, KingFloor DPM should be applied according to the priming section.

SURFACE PREPARATION

Concrete surfaces must be degreased using degreasing products, torching or any other suitable method which assures the surface is free from any oil traces.

Surfaces should be sound and with no irregularities as they can affect the finish of the applied product.

TECHNICAL PROPERTIES

@ 25°C. W/P: 0.18

Flow properties using 35 cc flow ring: ISO 554	Initial ≥ 120 mm After 15 min ≥ 110 mm
Workability:	15 - 20 min
Vicat setting time:	2 hr
Foot traffic: Light traffic:	24 hr 48 hr
*Compressive strength: ASTM C109/109M-02 BS EN 13892-2	> 25 MPa @ 7 days > 35 MPa @ 28 days
Flexural strength: BS 6319, Part 3 : 1990 BS EN 13892-2	> 5 MPa @ 7 days > 7 MPa @ 28 days > 5 MPa @ 28 days
Maximum wear depth: BS EN 13892-4	0.1 mm
Maximum application surrounding temperature:	35°C
Maximum mixed material temperature:	32°C
Shrinkage (µ/m): ASTM C490-00a	< 400 @ 28 days
Application thickness:	5 – 50 mm
Bond strength to concrete: ASTM C1583	> 1.5 MPa @ 28 days
VOC: ASTM D2369	< 5 g/ltr

*Note: dry cure for compressive and flexural strengths.

Concrete surfaces are to be mechanically prepared to remove laitance and achieve a flat surface, grit blasting or surface profiling equipment are preferred. Acid etching can be used after consulting with KINGKRETE's Technical Department.

Surface defects such as voids and blowholes should be repaired before application. Consult KINGKRETE's Technical Department for the best repair material.

Surfaces must be free of any dust or loose particles before product application. Use suitable methods like vacuuming or sweeping.

If possible, apply the product on a small test area before actual application to check for any problems with the surface preparation.

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PRIMING

Priming is done to seal the substrate in order to prevent pin holing caused by the release of air from the substrate. The following priming options are available:

KingFloor Primer C

For application onto sand/cement screeds, concrete and other porous substrates, first seal the prepared surface by applying one coat of KingFloor Primer C diluted with 3 parts potable water and allow to dry.

Prime the sealed surface by applying a second coat of KingFloor Primer C diluted with 3 parts potable water and brush well into the surface. The primer must be allowed to dry before the application of KingFloor C200SL.

KingFloor Primer

For impervious surfaces, apply one coat of KingFloor Primer and whilst still tacky fully blind with Anti-slip Aggregate #2 at approximately 3 kg/m2 until the surface is covered and no resin spots remain. Allow to dry fully overnight and remove excess aggregate before applying KingFloor C200SL.

For porous substrates, apply one coat of KingFloor Primer and allow to cure. Apply second coat and whilst still tacky fully blind with Anti-slip Aggregate #2 in the manner mentioned above.

Allow to dry fully overnight and remove excess aggregate before applying KingFloor C200SL.

KingFloor DPM

For surfaces with RH between 75 and 85%, prime with 1 coat of KingFloor DPM and allow to dry prior to application of KingFloor Primer C.

For surfaces with RH greater than 86%, prime with 2 coats of KingFloor DPM and allow the second coat to dry before priming with KingFloor Primer C.

After KingFloor DPM has been applied and left to cure, apply KingFloor Primer C and whilst it is still tacky fully blind with Antislip Aggregate #2 at approximately 3 kg/m2, until the surface is covered and no resin spots remain. Allow to dry fully overnight and remove excess aggregate before applying KingFloor C200SL.

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

4.5 – 4.8 litre 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 130 mm using a 50 cc flow ring.

To avoid separation, applications greater than 15 mm require less water and therefore a reduced flow.

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 - 50 mm in one pass.

It is always better to work in manageable sections of approximately 20 m². It is recommended to seal KingFloor C200SL with suitable epoxy resin or solvent based resin sealer, especially if water may come into direct contact with the cured KingFloor C200SL. Where materials are to be applied over the surface of the hardened KingFloor C200SL, it is good practice to SHOT BLASTING the surface prior to carrying out subsequent treatments.

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 covered with polyethylene sheets.

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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 cool water. Better to have the mixed fresh material temperature < 30°C.
- This product is not recommended for external use or situations where water may come into direct contact with the cured material.
- Not recommended to work with the product when surrounding temperature > 35°C.
- The material should not be used on floors where rising damp is valid, unless a suitable primer is used.

PACKAGING

KingFloor C200SL is available in 25 kg bags.

KingFloor Primer C is available in 5 and 25 litre pails.

CLEANING

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

COVERAGE

KingFloor C200SL: 1.36 m² @ 10 mm thickness for 25 kg bag mixed with 4.5 litre of clean water.

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

30 m²/5 litre.

150 m²/25 litre.

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 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

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.

KingKrete Middle East
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