

KingFloor® C100SL

Self-smoothing floor leveling underlayment.

DESCRIPTION

KingFloor CC100SL is supplied as a pre-blended dry powder designed for application between 1 mm to 10 mm application.

APPLICATIONS

KingFloor C100SL is designed as a self-smoothing suitable for use as a cementitious underlay for many types of floor finishes such as Vinyl sheeting, carpeting, rubber sheet and tiles.

ADVANTAGES

- ☑ Single component, requires only addition of water.
- ☑ Fast setting properties.
- ☑ Fast laying, up to 500 m² per day.
- ☑ Excellent adhesion.

STANDARDS

KingFloor C100SL complies with EN 13813, Class CT, C30, F10.

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

Maximum grain size:	0.5 mm
Flow properties using 35 cc cone:	Initial ≥ 130 mm After 15 min ≥ 115 mm
Workability:	15 min
Foot traffic:	24 hr
*Compressive strength: BS EN 13892-2	≥ 18 MPa @ 7 days ≥ 34 MPa @ 28 days
*Flexural strength: BS EN 13892-2	≥ 5 MPa @ 7 days ≥ 10 MPa @ 28 days
Maximum wear depth: BS EN 13892-4	0.02 mm
Maximum application surrounding temperature:	35oC
Maximum mixed material temperature:	32oC
Shrinkage (μ/m): ASTM C490	< 400 @ 28 days
Application thickness:	1 – 10 mm
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.

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

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

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Prime the sealed surface by applying a second coat of Cemflow Primer diluted with 3 parts potable water and brush well into the surface. The primer must be allowed to dry before the application of KingFloor C100SL.

KingFloor Primer

For impervious surfaces, apply one coat of KingFloor Primer and whilst still tacky fully blind with Anti-slip Aggregate #2 or #3 (depending on the final application thickness) 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 C100SL.

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 or #3 (depending on the final application thickness) in the manner mentioned above.

Allow to dry fully overnight and remove excess aggregate before applying KingFloor C100SL.

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.

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.

After KingFloor DPM has been applied and left to cure, apply KingFloor Primer 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 C100SL.

MIXING

Use a power-whisk fitted in a heavy-duty slow speed electric drill. Mix in the proportion of 25 kg of powder to 5 - 5.25 litre of potable water. Slowly add the powder while continuously mixing is taking place.

Continue mixing until a smooth, lumps free consistency is achieved. Total mixing time must not be less than 5 minutes.

Ensure that sufficient labor is available to enable continuous mixing and pouring. Place the KingFloor C100SL within 2 minutes of completion of mixing.

APPLICATIONS

Pour or pump the mixed material onto the prepared surface spread with trowel and allow to level, and allow to attain a smooth finish. The use of a spiked roller will help eliminate entrapped air and smooth out flow lines. Do not over roll. Apply at a thickness between of 1 - 10 mm in one pass only.

To reduce the formation of seam lines, freshly mixed KingFloor C100SL should be placed within 6 minutes of the previous adjacent batch being poured. Best results are achieved when the pouring and leveling are a continuous process. It is always better to work in manageable sections of approximately 20 m².

Note: If the mixing batch stiffens, it should be discarded, do not remix it with water.

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 C100SL: 2.9 m² @ 5 mm thickness for 25 kg bag mixed with 5 litre of clean water.

KingFloor Primer when diluted 4 parts potable water to one part primer:

- ☒ 50 m²/5 litre.
- ☒ 250 m²/25 litre.

when diluted 3 parts potable water to one part primer:

- ☒ 40 m²/5 litre.
- ☒ 200 m²/25 litre.

PACKAGING

KingFloor C100SL is available in 25 kg bags.

KingFloor Primer is available in 5 and 25 litre pails.

CLEANING

All tools should be cleaned immediately after finishing with water.

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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 cool potable water. Better to have the mixed fresh material at 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 the surrounding temperature > 35°C.
- ⚠ The material should not be used on floors where rising damp is valid, unless a suitable primer is used.

NOTES:

Cool water is advised for mixing (temperature around 20°C or low).

Freshly laid KingFloor C100SL should be protected from direct sunlight and strong drying winds until the material is hard.

KingFloor C100SL should not be used on new concrete low than 14 days old.

Application should not be done if the temperature of the substrate is below 5°C.

The material should not be applied on floors known to have problems from rising damp.

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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Ref: KK-07012-MEA-R01 | Issue: 01.2026

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.