KingCoat® SF100W

Water based, damp tolerant, 0.5 - 1.5 mm thick self-leveling epoxy topping for floor surfaces

DESCRIPTION

KingCoat SF100W is four component, damp tolerant, water based epoxy self-leveling topping that provides floor surfaces with a seamless, hygienic and cosmetically attractive matt finish.

KingCoat SF100W is applied by trowel or rack to horizontal surfaces and has very good durability towards pedestrian and light vehicular traffic. It also has very good resistance to many chemicals.

It can be supplied in a variety of colours (consult our sales Department for details). KingCoat SF100W cures to a durable and hard wearing matt finish.

APPLICATIONS

KingCoat SF100W is used to provide a seamless hygienic, dense and hard wearing surface for concrete floors for a wide range of applications such as:

- Hospitals.
- Pharmaceutical factories.
- Showrooms.
- Laboratories.
- Light industrial plants.
- Kitchens, Restaurants and reception areas.
- Schools, colleges, and universities.
- Retail environments, offices and in all places that stay occupied during flooring applications.

ADVANTAGES

- Rapid drying time permits faster use of floors.
- Good chemical resistance to a wide range of chemicals.
- Hygienic and cosmetically attractive seamless matt finish.
- Easy to clean and to maintain.
- Available in a range of attractive colours.
- Zero VOC, complies with LEED requirements.

METHOD OF USE

Substrate Condition

The substrate must be clean, damp, even, dense and free from oil, grease, dust and other contaminants. A clean surface will ensure maximum adhesion between the substrate and the coating.

Concrete floors must have a minimum compressive strength of 25 N/mm² and a maximum concrete relative humidity of 85%, relative humidity can be measured using a hygrometer.

TECHNICAL PROPERTIES

Appearance:	Matt
Colour:	Wide range of colours
Mixed density:	1.60 ± 0.05 g/cm3
Pot life:	20 min
Foot traffic:	24 hr
Light traffic:	48 hr
Bond strength: ASTM D4541-95	> 2 MPa (concrete failure)
Compressive strength: BS 6319, part 2:1983	> 30 MPa @28 days
Flexural strength: BS 6319, part 3:1990	> 10 MPa @28 days
Tensile strength: BS 6319, part 7:1985	> 3.5 MPa @28 days
Shore D hardness: ASTM D2240	> 60 @28 days
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight loss CS17 wheel	90 mg @28 days
VOC: ASTM 2369	< 10 gr/ltr (complies with LEED)

Concrete relative humidity should be less than 85% for concrete 14 days old or more.

Contact KINGKRETE Technical Department for further details.

SURFACE PREPARATION

Unsound layers and contaminated concrete surfaces must be prepared using mechanical surface removing equipment. In case of areas deeply contaminated by oil or grease, such areas should be treated by hot compressed air.

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PRIMING

KingCoat SF100W can be applied directly on damp or even on fresh concrete substrates, or over its primer (KingCoat SF100W Primer diluted up to 80% by water) or over KingFloor WD. Use lambs wool roller to apply the primer.

More than one coat may be required for highly porous or textured surfaces.

The primer should be allowed to cure for 18 to 24 hours at 25ºC before applying a second coat or prior to applying KingCoat SF100W.

MIXING

KingCoat SF100W is supplied in four pre-weighted packs base, hardener, filler and color packs which are supplied pre-weighed in the correct proportions. Under no circumstances should part mixing be carried out.

To avoid inconsistent workability and pot life, make sure that the materials to be used are stored in shaded area and protected from extremes of temperatures, for at least 24 hours prior to application.

Prior to mixing, stir individual components of Resin, Hardener and colour pack. Add the entire contents of the colour pack into the base container and mix with heavy duty drill for 1 minute maximum till a uniform colour is achieved. Add the entire contents of the mixed colour pack and base to the hardener container and mix thoroughly for further 1 min.

Once the KingCoat SF100W Hardener, Resin, and colour pack have been mixed, transfer the entire contents into a Casco or Creteangle-type mixer, taking care to ensure that the bottom and sides are thoroughly scraped.

Start the mixer and slowly add the entire contents of the KingCoat SF100W Filler container, taking care to ensure that these are completely dry and lump-free. Continue mixing for approximately 3 minutes until a completely homogenous material is obtained.

Note: Never mix KingCoat SF100W by hand as this could lead to areas of uncured material.

APPLICATION

Once mixing is complete, transfer the KingCoat SF100W to the primed surface at the required thickness by rack.

Care should be taken when joining the lanes, to achieve a smooth connection. It is recommended to mask off edges with tape which is then removed while KingCoat SF100W is still wet.

FINISHING

While still wet, thoroughly spike roll the KingCoat SF100W.

Occassional Spillage. Chemical Resistance after full cure (7 days @ 25oC), ASTM D1308 (spot test @ 1 hr)	
Organic acids	
Citric acid 25%	R
Acetic Acid 10%	RS
Lactic Acid 10%	R
Inorganic Bases	
Sodium Hydroxide 50%	R
Aqueous Solutions	
Sodium Chloride sat	R
Tap water	R
Chlorinated water	R
Dead sea water	R
Solvents	
Xylene	R
Ethylene glycol	R
Oils & Fuels	
Diesel	R
Brake fluid	R
Engine oil	R
Inorganic Acids	
Sulphuric Acid 25%	R
Phosphoric Acid 20%	RS
Hydrochloric Acid 10%	RS
Nitric Acid 10%	R

R: Resistant RS: Resistant with slight discoloration

REMARKS

- Never leave the mixed KingCoat SF100W to stand for any length of time prior to application as this will considerably shorten its working time. KINGKRETE Technical department should be contacted for advice.
- KingCoat SF100W should not be applied onto surfaces known to suffer from damp rising.
- KingCoat SF100W should not be applied at temperatures below 10ºC.
- For temperatures above 30ºC the following steps need to be done:

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- Material needs to be stored in a cool place away from direct sunlight.
- Equipments to be into direct contact with the material, needs to be cool.
- Application during the coolest time of the day is preferable.

CLEANING

All tools should be cleaned immediately after application with water. Hardened materials must be cleaned mechanically.

PACKAGING

KingCoat SF100W is supplied in 20 kg (12.4 ltr) packs. KingCoat SF100W Primer and KingFloor WD are supplied in 5 kg packs.

COVERAGE

KingCoat SF100W Primer:

45 - 52.5 m²/5 kg pack (undiluted)/coat to achieve 65 - 75 microns DFT.

KingFloor WD:

30 m²/5 kg pack (undiluted)/coat to achieve 65 - 75 microns DFT.

KingCoat SF100W:

0.8 kg/m2 to achieve 500 microns dry film thickness.

1.6 kg/m2 to achieve 1000 microns dry film thickness.

2.4 kg/m2 to achieve 1500 microns dry film thickness.

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

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Disclaimer: the IAS mark relates to certified management system and not to the product mentioned on this datasheet