KingFloor ® MM100

Three-component self-leveling screed based on reactive acrylics for floors on wet and dry areas

DESCRIPTION

KingFloor MM100 is a three component fast curing self-leveling screed based on elasticized methacrylate resin (MMA) for wet and dry areas. KingFloor MM100 will provide floors with very good thermal and mechanical properties and good resistance to acids and alkalis that is suitable for applications in wet and dry areas with a suitable topcoat.

KingFloor MM100 Filler pack can be supplied either un-pigmented or pigmented in a variety of colours (consult KINGKRETE's Technical Department for further details).

KingFloor MMSW (clear or pigmented) is used over KingFloor MM100 for industrial and commercial floors in wet areas.
Quicktop MMSD (clear or pigmented) is used over KingFloor MM100 for industrial and commercial floors in dry areas.

APPLICATIONS

KingFloor MM100 topcoated with KingFloor MMSW is especially suitable for easy to clean hygienic indoor surfaces. KingFloor MMSW provides surfaces that are highly resistant to hot water, greasy water, and conventional cleaning agents.

This system is the ideal choice for wet areas in the food industry such as slaughter houses, poultry farms, fish industries, meat processing plants, dairies, fruit juice companies, restaurant and hotel kitchens, showers and washrooms.

KingFloor MM100 topcoated with KingFloor MMSD is especially suitable for decorative smooth floor coating for a wide range of floors exposed to light mechanical loads.

This system is the ideal choice for dry areas in bakeries, canteens, restaurants, supermarkets, retail shops, showrooms, laboratories, pharmaceutical factories, hospitals, schools, gymnasiums, public offices and general food processing and manufacturing plants.

TECHNICAL PROPERTIES @ 25ºC:

Colour:	Can be pigmented in a range of colours
Density (Base):	0.98 ± 0.01
Mixed density:	1.8 ± 0.1 g/cm^3
Coat thickness:*	2 - 4 mm
Solids by weight:	100%
Application temperature:	5 to 30°C
Minimum overcoating time:	40 min (check the Potlife/ Hardening Table for different temperatures)
Foot traffic:	40 min (check the Potlife/ Hardening Table for different temperatures)
Full cure:	2 hrs
VOC: ASTM D2369	0 g/ltr

** When applied in a smooth finish.*

THERMAL RESISTANCE

TOPCOAT	TEMPERATURE RANGES
Quicktop TC26	Permanent exposure to hot water up to 80°C (steam cleaning)
Quicktop TC27	Temporary exposure to warm water up to 55 to 60°C

ADVANTAGES

- Very fast curing, less than 2 hours.
- Cures even at low temperatures.
- Easy to clean and maintain flooring system.
- High abrasion and scratch resistance.
- Good UV resistance, low yellowing.
- Can be available in a range of colours (Contact KINGKRETE Technical Department for further details).
- Good resistance to acids and alkalis.
- The system KingFloor MM100/TC26 is resistant to fat and hot water (up to 80°C).
- The system KingFloor MM100/ aggregate/ KingFloor MMSW is slip-resistant and safe to walk on in wet areas.

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METHOD OF USE

Substrate Condition

Concrete substrates should be fully cured and achieve a minimum compressive strength of 25 N/mm^2 and a minimum pull-off strength of 1.5 N/mm^2.

The concrete substrate should be below 75% RH and have less than 4% moisture content. Alternatively, consult with KINGKRETE's Technical Department.

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.

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.

Mixing

KingFloor MM100 is comprised of three components; base, hardener and filler.

The percentage of the quantity of hardener used with base is dependent on the ambient and substrate temperatures as determined in the below table:

	(%PBW)*
5°C	4.5%
10°C	3%
20°C	2%
30°C	1%

** Percentage by weight of the KingFloor MM100 hardener to the KingFloor MM100 Base".*

To ensure proper mixing, a mechanically powered mixer or drill fitted with a suitable paddle and substrate temperatures should be used.

Mix KingFloor MM100 Base "liquid resin" first, then add KingFloor MM100 Filler and KingFloor MM100 Pigment (if required), mix for at least 1 minute. Then add the appropriate quantity of powdered hardener according to the ambient and substrate temperature and dissolve hardener by mixing for 1 minute.

Notes:

- *Avoid over mixing to not induce air entrainment.*
- *Do not dilute KingFloor MM100.*
- *Do not reduce the amount of hardener below than 1% in all circumstances even when applying at temperatures higher than 30°C.*

POT LIFE/ HARDENING

The pot life and the hardening time of KingFloor MM100 are dependent on substrate and ambient temperatures and the quantity of hardener, as follows:

Temperature (ºC)	Hardener (%pbw)	Pot Life (min)	Hardening time (min)
5°C	4.5%	~40	~70
10°C	3%	~35	~75
15°C	2%	~15	~35
30°C	1%	~25	~70

** Percentage by weight of the KingFloor MM100 hardener to the KingFloor MM100 Base.*

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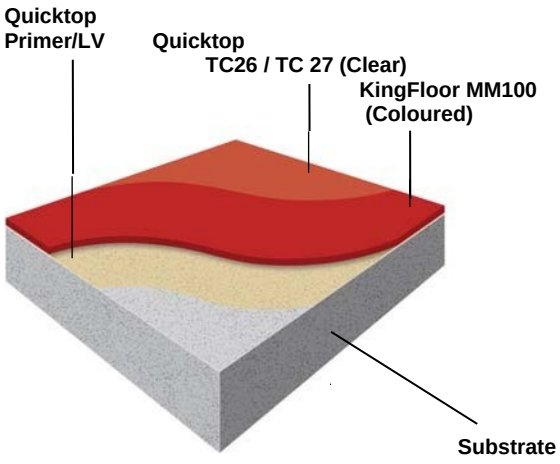
APPLICATION (SMOOTH FINISH)

Smooth Finish

Once mixing is complete, transfer the KingFloor MM100 to the primed surface using a pin rake adjusted to the required thickness.

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 KingFloor MM100 is still wet.

After curing of KingFloor MM100, topcoat the surface with Qicktop TC27 as clear topcoat for dry areas. In wet operation areas, KingFloor MM100 must be topcoated with Quicktop TC26.



Antislip Finish

Once mixing is complete, transfer the KingFloor MM100 to the primed surface using a pin rake adjusted to the required thickness.

While KingFloor MM100 is still wet, fully blind with Antislip Aggregate #3. Once cured, all excess aggregates shall be removed before applying Quicktop TC26 or Quicktop TC27.

Notes:

- *Freshly applied KingFloor MM100 must be protected from dampness, condensation and water for at least 1 hour.*
- *Ensure good ventilation when applying KingFloor MM100 in confined areas.*
- *In case of application of KingFloor MM100 over clean old self-levelling epoxy flooring, an adhesion test should be performed on site prior to application (Contact KINGKRETE Technical Department for further details).*

SYSTEM AND COVERAGE

SYSTEM COMPONENTS	SMOOTH FINISH SYSTEM PRODUCT	COVERAGE
Primer	Quicktop Primer or Quicktop Primer LV	2.5m²/kg/coat @ 400 microns dft
Basecoat	KingFloor MM100	5.4 Kg/m² @ 3mm
Topcoat		
Wet areas	KingFloor MMSW	2.5 m²/kg/coat @ 400 microns dft
Dry areas	KingFloor MMSD	2.5 m²/kg/coat @ 400 microns dft
SYSTEM COMPONENTS	**BROADCAST SYSTEM PRODUCT**	**COVERAGE**
Primer	Quicktop Primer or Quicktop Primer LV	2.5 m²/kg/coat @ 400 microns dft
Basecoat	KingFloor MM100	5.4 Kg/m² @ 3mm
Aggregates	Antislip Aggregate #3	Full blind
Topcoat		
Wet areas	Quicktop TC26	2.5 m²/kg/coat @ 400 microns dft
Dry areas	Quicktop TC27	2.5 m²/kg/coat @ 400 microns dft

LIMITATIONS

Do not apply KingFloor MM100 in the presence of foodstuffs whether packaged or not. KingFloor MM100 exhibits a characteristic odour during application and prior to achieving full cure, but once fully cured KingFloor MM100 is taint-free.

CLEANING

Tools and equipment can be cleaned with KINGKRETE Solvent. Hardened materials should be cleaned mechanically.

PACKAGING

KingFloor MM100 is available in 25 kg packs (6.75 kg base liquid,
0.25 kg hardener powder and 18 kg filler or pigmented filler).

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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 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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KingKrete South America
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