

# KingFill® C50

**Highly flexible cementitious tile grout for wide joints applications high water repellency effect.**

**TECHNICAL PROPERTIES @ 23 ± 2 C. w/p = 0.19**

## DESCRIPTION

KingFill C50 is a highly flexible, premixed blend of cement, lime, well graded aggregate and special additives that when mixed with water produces a distinguished tile grout typically designed for wide joint widths range from 3 to 15 mm.

The unique composition of KingFill C50 makes it ideally used to fill the wide joints and provide a smooth and attractive finishing free of any notable cracks. It is also characterized by a very low water absorption rate and thus it represents an excellent solution for grouting in exterior and submerged areas.

KingFill C50 is available in wide range of brilliant colours that provide a uniform and aesthetic joint appearance.

## APPLICATIONS

- 🔧 Grouting all types of ceramic tiles and natural stone for joints between 3 to 15 mm.
- 🔧 Excellent for bathrooms, kitchens and other wet areas.
- 🔧 Excellent for submerged areas.
- 🔧 Suitable for commercial and residential buildings.
- 🔧 Non-sag, excellent for wall applications.
- 🔧 Excellent for internal and external applications.

## ADVANTAGES

- 🔧 Specially designed for wide grouting.
- 🔧 High abrasion resistance.
- 🔧 Reduced water absorption properties, suitable for wet areas.
- 🔧 Low shrinkage rate, free of cracks.
- 🔧 Uniform colour, for aesthetic joint appearance.
- 🔧 Easy to apply, non-sag with good workability.
- 🔧 Available in wide range of brilliant colours.

Fresh wet density:	1.60 ± 0.10 g/cm <sup>3</sup>
Working time:	70 - 90 min
Compressive strength: ISO 13007-4,4.1.4 ISO 13007-4,4.1.5	≥ 15 MPa (standard conditions) ≥ 15 MPa (after freeze-thaw cycles)
Flexural strength: ISO 13007-4,4.1.3 ISO 13007-4,4.1.5	≥ 2.5 MPa (standard conditions) ≥ 2.5 MPa (after freeze-thaw cycles)
Shrinkage: ISO13007-4,4.3	≤ 2.0 mm/m
Water absorption: ISO 13007-4,4.2	≤ 0.2 g @ 240 min
VOC: ASTM D2369	< 10 g/ltr (complies with LEED)

## LIMITATIONS

Do not use for:

- 🔧 Joint widths exceeding 15 mm.
- 🔧 Grouting tiles in industrial floors where high chemical resistance is required.
- 🔧 Cases where a rapid utilization of surfaces is required.
- 🔧 Filling expansion, contraction or construction joints in walls and floors. These joints should be filled with a suitable flexible sealant from the KINGKRETE range.

## STANDARDS

KingFill C50 complies with the following standards:

- 🔧 ISO 13007-3 and BS EN 13888 as an improved cementitious grout with additional characteristics of reduced water absorption and high abrasion resistance (CG2AW).

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## METHOD OF USE

### Substrate preparation

Before grouting, ensure that the adhesive has completely dried and hardened. Adhesive should be left for 24 hours before applying the grout, unless rapid setting adhesive is used.

All tiles and joints must be clean and free from oil, grease or loose materials.

Remove the tile spacers and ensure that the grout joints are uniform and their widths do not exceed 15 mm to avoid slumping.

### Mixing

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

0.9 - 1.0 litres of clean fresh water for each 5 kg bag (water/powder ratio of 0.18 - 0.2 by weight) should be added to a clean container. The powder is then added slowly to the water while mixing continuously at low speed (400 - 600 rpm).

Mixing time should be continued for 3 minutes until a uniform consistency and free of lumps mixture is obtained.

Allow a slake time for 5 minutes, then remix for additional 1 minute without adding any more water.

Important: Adding too much water will weaken the joints, cause surface discoloration and promote the formation of cracks. Always follow the mentioned mixing ratio.

## APPLICATION

- ☞ Using appropriate spatula or rubber float, fill with pressure the joints completely with KingFill C50.
- ☞ Immediately remove the excess grout by moving the spatula or the edge of the rubber float diagonally to the tiles.
- ☞ When the grout starts to set (usually 30 - 40 minutes at normal conditions), use a damped sponge in a circular motion to remove the excess grout and level the joints.
- ☞ After drying, clean the tiles surface using a dry cloth.

It is recommended to remove grout from the tile surfaces before full setting of the grout. Failure to do so may result in difficulty in removing any remains and makes it necessary to use a mechanical means in cleaning, which may scratch the tile surfaces.

## YIELD

The approximate yield of grout can be calculated as per the following equation:

$$\text{Yield (m}^2\text{/kg)} = \frac{6}{\text{WD (0.02 + 1/L+1/H)}}$$

Where;

L: Tile length (cm)

H: Tile width (cm)

D: Average joint depth (mm)

W: Average joint width (mm)

*Note: Grout yield subject to ±15% tolerance.*

## PACKAGING

KingFill C50 is available in 5 kg bags.

## CLEANING

All tools should be cleaned immediately after use with fresh clean water. Hardened materials should be cleaned mechanically.



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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.

® = 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.