KingFill ® C100

High performance and water repellant cementitious tile grout for joints up to 8 mm in wet and submerged areas

DESCRIPTION

KingFill C100 is a blend of cement, redispersable powder polymer and special hydrophobic additives that when mixed with water forms a high water repellent tile grout typically designed for joint widths up to 8 mm in wet and submerged areas.

Beside its high water repellent characteristics, the high abrasion resistant feature of KingFill C100 makes it ideally suitable to be used in commercial and residential building subjected to high traffic load.

KingFill C100 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 up to 8 mm joints.
- Superb performance in wet areas and submerged conditions.
- Suitable for commercial and residential buildings.
- Non-sag, excellent for wall applications.
- Excellent for internal and external applications.

ADVANTAGES

- High water repellent properties, for optimum performance in submerged conditions.
- High abrasion resistance.
- Improved hygienic features, anti-mould and stain resistance.
- Non shrinkage, free of cracks.
- Uniform colour for aesthetic joint appearance.
- Easy to apply, non-sag with good workability.
- Available in wide range of brilliant colours.

LIMITATIONS

Do not use for:

- Joint widths exceeding 8 mm.
- Grouting tiles in industrial floors where high chemical resistance is required.
- Cases where a rapid utilization of surfaces is required.

TECHNICAL PROPERTIES @ 23 ± 2°C. W/P = 0.34

Fresh wet density:	1.70 ± 0.1 g/cm^3
Compressive strength: ISO 13007-4,4.1.4	> 15 MPa @ 28 days
Flexural strength: ISO 13007-4,4.1.3	> 2.5 MPa @ 28 days
Working time:	70 – 90 min
Shrinkage: ISO13007-4,4.3	< 3.0 mm/m
Abrasion resistance: ISO 13007-4,4.4	< 1000 mm^3
Water absorption: ISO 13007-4,4.2	< 5 g @ 240 min
VOC: ASTM D2369	< 10 g/ltr (complies with LEED)

- 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 C100 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).
- ANSI A118.6 as a standard cementitious grout.

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 8 mm to avoid slumping.

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MIXING

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

1.65 - 1.75 litres of clean fresh water for each 5 kg bag (water/powder ratio of 0.33 - 0.35 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 C100.
- 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 20 - 30 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:

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

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 C100 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.

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.

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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 Qatar facility 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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