



# Keracolor FF



**High performance  
cement based grout for  
joints up to 6 mm**

## **CLASSIFICATION IN COMPLIANCE WITH prEN 13888**

**Keracolor FF** is an improved (2) cementitious (C) grout (G) as class CG2.

## **WHERE TO USE**

Grouting interior and exterior floors and walls in all types of ceramic tiles (single fired, double fired, klinker, porcelain tile, etc.), stone material (natural stones, marble, granite, agglomerates, etc.), glass and marble mosaics.

## **Some application examples**

- Grouting floor and wall ceramic tiles in interiors.
- Grouting swimming pools.
- Grouting particularly smooth and glossy floor surfaces (smoothened and glossed porcelain, pre-smoothened and glossed marble, glazed tiles).
- Grouting ceramic tile industrial flooring where resistance to chemical agents is not required (garages, warehouses...).

## **TECHNICAL CHARACTERISTICS**

**Keracolor FF** is a mixture of cement, very fine-graded aggregates, synthetic resins, special additives and pigments.

The following features are obtained when mixed with the right water ratio and used correctly:

- Good compressive and flexural strength, and good resistance to freeze/thaw cycles, therefore good durability.
- A smooth final surface with low water absorption, therefore easy to clean.
- Very good abrasion resistance.



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- Low shrinkage, therefore absence of cracks and fissures.
- Good resistance to acids with pH >3.
- Excellent cost-quality ratio.

When mixing **Keracolor FF** with **Fugolastic**, a special synthetic resin based polymeric additive, the final characteristics improve, achieving the adequate resistance even under harsh conditions of use (grouting façades, swimming pools, bathrooms, floors with heavy traffic). For further information consult the **Fugolastic** technical data sheet.

## RECOMMENDATIONS

- Do not use **Keracolor FF** with cement or any other products. Never add water to the mixture that is beginning to set.
- Never mix **Keracolor FF** with salt or dirty water.
- Use the product in temperatures between +5°C and +35°C.
- The amount of water of the mixture must be precisely measured. An excess of water could induce the appearance of a whitish coat over the surface (efflorescence). Different colour tones could result if mixtures with different mixing ratios are prepared. Efflorescence over the surface is due to the formation of calcium carbonate and could also be caused by: moisture residue contained in adhesives, not fully hydrated grouts, in substrates not adequately dried, or in substrates not adequately protected from rising damp.
- After having filled the joints with the mixture, it is not recommended to strew the grouts with **Keracolor FF** powder to avoid an uneven colour and the reduction of mechanical strengths.
- Expansion joints and fracture joints in floors and walls should never be filled with **Keracolor FF**, but with the appropriate flexible MAPEI sealants.
- Sometimes the surface of some ceramic tiles or stone materials are rough or contain micro-porosities. It is recommended to make a sample test to verify cleanability and when necessary, apply a protection treatment over the surface, but avoiding the penetration into the joints.

## APPLICATION PROCEDURE

### Preparing the joints

Before beginning to grout the joints, wait until the installation mortar or the adhesive has completely hardened. Verify that the waiting time indicated on the relevant technical data sheet have elapsed.

The joints must be cleaned, free of dust and emptied at least 2/3 of the tile thickness.

The excess adhesive or mortar should be removed while still fresh.

Wet the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

### Preparing the mix

While stirring, pour **Keracolor FF** into a clean, rust-free container containing 28-34% by weight, depending on the colour, of clean water or **Fugolastic** (if required in the application). When grouting floors, the mixture can be made thinner by adding more water (approx. 30-36% by weight). Mix, possibly with a low speed mixer to avoid excess formation of air bubbles, to a smooth consistency.

Wait 2-3 minutes and briefly re-stir before use. Use the mixture within 2 hours from preparation.

## Applying the grout

Fill the joints well with **Keracolor FF** using the appropriate MAPEI trowel or rubber float, making sure the joints are completely compacted, with no unevenness. Remove excess **Keracolor FF**, while still fresh, from the surface moving the trowel or float diagonally to joints.

## Finishing

When the mixture loses its plasticity and becomes opaque, usually after 10-20 minutes, clean excess **Keracolor FF** with a damp hard cellulose sponge (e.g. MAPEI sponge) working diagonally to joints. Rinse the sponge frequently using two separate buckets of water: one to remove the excess mixture from the sponge and the other with clean water for rinsing out the sponge. This can also be carried out with a power float. To help remove the hardened product from the tiles, use a dampened Scotch-Brite® pad or a disc-type power float with special abrasive-felt discs.

If cleaning is carried out too early (when the mixture is still plastic), the joints may be partially emptied, therefore more subject to colour variations. On the other hand, if the grout has already hardened, it is necessary to clean the surface mechanically, which could scratch the surface of the tiles.

When applying **Keracolor FF** in extremely hot, dry or windy climates, it is recommended to wet the joints after several hours.

Curing **Keracolor FF**, the wet curing way always improves its final performances.

Final cleaning of a possible powdery haze of **Keracolor FF** from the surface is carried out with a clean dry cloth.

After the final cleaning, if the surface of the floors or walls are still dirty with **Keracolor FF**, an acid cleaner can be used (e.g. **Keranet**), following the relevant instructions, at least 10 days after grouting the joints. Use **Keranet** only on acid-resistant surfaces and never on marble or lime materials.

## SET TO LIGHT FOOT TRAFFIC

Floors are set to light foot traffic after approximately 24 hours.

## READY FOR USE

Floors are ready for traffic after approx. 7 days. Basins and swimming pools can be filled 7 days after grouting.

## Cleaning

Clean tools and containers with plenty of water before **Keracolor FF** hardens.

## CONSUMPTION

Coverage of **Keracolor FF** varies depending on the width of the joints, the size and thickness of the tiles. Some examples of coverage in kg/m<sup>2</sup> are shown in the chart.

## PACKAGING

25 kg bags, 4x5 kg boxes depending on the colour.

## COLOURS

**Keracolor FF** is available in 10 colours from



Grouting a glass mosaic (bathroom) with a trowel



Finishing a glass mosaic with a sponge



Grouting of pre-smoothed and glossed granite floor with rubber float

## TECHNICAL DATA (typical values)

In compliance with:

– European prEN 13888 as CG2  
– American ANSI A118.6 - 1999

### PRODUCT IDENTITY:

|  |  |
|--|--|
| Type:                                  | fine powder                                      |
| Colour:                                | 10 colours from "THE COLOURED GROUTS 2000" range |
| Density (apparent):                    | 1.0-1.4 g/cm <sup>3</sup>                        |
| Dry solid content:                     | 100%   |
| Storage:                               | 12 months in a dry place in original packaging   |
| Health hazard according to EEC 88/379: | none   |
| Customs class:                         | 3824 50 90                                       |

### APPLICATION DATA at +23°C and 50% R.H.:

|  |  |
|--|--|
| Mixing ratio:                                    | 100 parts <b>Keracolor FF</b> with 28-34 parts water by weight depending on the colour |
| Consistency of mix:                              | thin paste   |
| Density of mix:                                  | 2.0 g/cm <sup>3</sup>  |
| pH of mix:                                       | approx. 13   |
| Pot life:  | approx. 2 hours  |
| Application temperature:                         | from +5°C to +35°C   |
| Grouting after installation:                     |  |
| – on walls bonded with normal setting adhesive:  | 4-8 hours  |
| – on walls bonded with fast setting adhesive:    | 1-2 hours  |
| – on walls with mortar:                          | 2-3 days   |
| – on floors bonded with normal setting adhesive: | 24 hours   |
| – on floors bonded with fast setting adhesive:   | 3-4 hours  |
| – on floors with mortar:                         | 7 days   |
| Waiting time for finishing:                      | 10-20 minutes  |
| Set to light foot traffic:                       | 24 hours   |
| Ready for use:                                   | 7 days   |

### FINAL PERFORMANCES:

Flexural strength after 28 days (prEN 12808-3):

Compressive strength after 28 days (prEN 12808-3):

Flexural strength after freeze-thaw cycles (prEN 12808-3):

Compressive strength after freeze-thaw cycles (prEN 12808-3):

Abrasion resistance (prEN 12808-2):

Shrinkage (prEN 12808-4):

Water absorption after 30 min. (prEN 12808-5):

Water absorption after 4 hours (prEN 12808-5):

In compliance  
with European norm  
prEN 13888  
as CG2

|  |                     |
|--|---------------------|
| Resistance to moisture:                  | excellent           |
| Resistance to ageing:                    | excellent           |
| Resistance to solvents, oils and alkali: | excellent           |
| Resistance to acids:                     | good if pH > 3      |
| Resistance to temperature:               | from -30°C to +80°C |



Grouting single-fired tile with a trowel



Finishing with a Scotch-Brite® pad



An example of a grouted mosaic tile kitchen

# Keracolor FF



| CONSUMPTION TABLE DEPENDING ON THE SIZE OF THE TILE AND WIDTH OF THE JOINTS (kg/m <sup>2</sup> ) |                         |     |     |
|--|-------------------------|-----|-----|
| Size of the tile (mm)  | Width of the joint (mm) |     |     |
|  | 2                       | 3   | 5   |
| 20 X 20 X 4  | 1.2                     |     |     |
| 50 X 50 X 4  | 0.5                     |     |     |
| 75 X 150 X 6   |                         | 0.6 | 0.9 |
| 100 X 100 X 6  |                         | 0.6 | 0.9 |
| 100 X 100 X 10   |                         | 0.9 | 1.5 |
| 100 X 200 X 6  |                         | 0.4 | 0.7 |
| 100 X 200 X 10   |                         |     | 1.2 |
| 150 X 150 X 6  |                         | 0.4 | 0.6 |
| 200 X 200 X 8  |                         | 0.4 | 0.6 |
| 120 X 240 X 12   |                         |     | 1.2 |
| 250 X 250 X 12   |                         |     | 0.8 |
| 250 X 250 X 20   |                         |     | 1.2 |
| 250 X 330 X 8  |                         | 0.3 | 0.5 |
| 300 X 300 X 8  |                         | 0.3 | 0.4 |
| 300 X 300 X 10   |                         | 0.3 | 0.5 |
| 300 X 300 X 20   |                         |     | 1.0 |
| 300 X 600 X 10   |                         | 0.3 | 0.4 |
| 330 X 330 X 10   |                         | 0.3 | 0.5 |
| 400 X 400 X 10   |                         | 0.3 | 0.4 |
| 450 X 450 X 12   |                         |     | 0.4 |
| 500 X 500 X 12   |                         |     | 0.4 |
| 600 X 600 X 12   |                         |     | 0.3 |

### CONSUMPTION CALCULATION FORMULA:

$$\frac{(A + B)}{(A \times B)} \times C \times D \times 1,5 = \frac{\text{kg}}{\text{m}^2}$$

A = length of tile (in mm)      C = thickness of the tile (in mm)  
 B = width of the tile (in mm)      D = width of the joint (in mm)

the "THE COLOURED GROUTS 2000" range.

### STORAGE

N.B.: Keracolor FF can be stored 12 months in a dry place in original packaging.

### SAFETY INSTRUCTIONS FOR THE PREPARATION AND INSTALLATION

Contains cement that when in contact with sweat or other body fluids produces an irritant alkaline reaction. Use protective gloves and goggles. For further information consult the safety data sheet.

FOR PROFESSIONALS.

### WARNING

N.B. - Although the technical details and recommendations contained in this product report correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical applications: for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application: in every case, the user alone is fully responsible for any consequences deriving from the use of the product.

**All relevant references of the product are available upon request.**



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An example of a grouted double-fired tile floor