KERACOLOR FF

High-performance, polymer-modified, water-repellent, cementitious grout with DropEffect® technology for joints up to 6 mm







BENEFITS AND FEATURES

- Water-repellent (DropEffect® Technology)
- Durable and strong
- Easy workability
- Easy to clean
- Uniform grouts, without cracks
- Good resistance to acids
- Very low emission of VOC

CLASSIFICATION IN COMPLIANCE WITH EN 13888-1

Keracolor FF is an improved (2) cementitious (C) grout (G), with reduced water absorption (W) and high abrasion resistance (A), classified as CG2WA.

WHERE TO USE

Grouting interior and exterior floor and wall tiling (single-fired, double-fired, klinker, porcelain tile, etc.), stone materials (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 (smooth and polished porcelain, pre-smoothed and polished marble, glazed tiles).
- Grouting ceramic tile industrial flooring where resistance to chemical agents is not required (garages, warehouses, etc.).

TECHNICAL CHARACTERISTICS

Keracolor FF is a blend of cement, very fine-graded aggregates, special polymers, additives and pigments.

The use of special hydrophobic additives (DropEffect® technology) gives grouting mortars highly water-repellent properties, making them less prone to dirtiness and with excellent durability.

It is a product with very low emissions of volatile organic compounds, classified as Emicode EC1 Plus by GEV.

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

- water-repellent and drop-effect;
- good compressive and flexural strength, good resistance to freeze/thaw cycles, and therefore good durability;
- a smooth final surface with low water absorption, therefore easy to clean;
- very good abrasion resistance;
- low shrinkage, therefore absence of cracks and fissures;
- good resistance to acids with pH >3;
- excellent value for performance.

When mixing **Keracolor FF** with **Fugolastic**, a special synthetic resin-based polymeric additive, the final characteristics are improved for use even under harsh conditions (grouting façades, swimming pools, bathrooms, floors with heavy traffic).

For further information, refer to the **Fugolastic** technical data sheet.

RECOMMENDATIONS

- Do not mix **Keracolor FF** with cement or any other products. Never add water to the mixture that is beginning to set.
- Do not blend different colours of grout together, as there is a risk of colour inconsistency and lack of uniformity of the final shade once the grout has set.
- Never mix **Keracolor FF** with salty or dirty water.
- Use the product at temperatures between +5°C and +35°C.
- The amount of mixing water must be precisely measured. Excess water could induce the appearance of a whitish coat over the surface (efflorescence). Different colour tones could result if mixtures with different water ratios are prepared. Efflorescence over the surface is due to the formation of calcium carbonate and could also be caused by residual moisture contained in adhesives, not fully hydrated grouts, in substrates not adequately dried, or in substrates not adequately protected from rising damp.
- After filling the joints, do not sprinkle **Keracolor FF** powder onto the grout as this can cause uneven colour and reduce the mechanical strength.
- Expansion joints and distribution joints in floors and walls should never be filled with **Keracolor FF**, but with the appropriate flexible MAPEI sealant.
- The surface of some ceramic tiles or stone materials is rough or contains micro-porosities. It is recommended to carry out a sample test to verify cleanability and, when necessary, apply a protective treatment over the surface, but avoiding penetration into the joints. When grouting a swimming pool which is due to be disinfected through saline electrolysis, please use **Ultracolor Plus** or **Kerapoxy**.

APPLICATION PROCEDURE

Preparation of the joints

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

The joints must be clean, free of dust and raked back to at least 2/3 of the tile thickness. Excess adhesive or mortar should be removed whilst still fresh.

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

Preparation of the mix

While stirring, pour **Keracolor FF** into a clean, rust-free container containing 23-30% by weight, depending on grout 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. 25-32% by weight).

Mix 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 of preparation.

Application

Fill the joints completely with **Keracolor FF** using the appropriate float **Mapei Rubber Float dual profile for Grout**, making sure the joints are completely compacted, with no unevenness. Remove excess **Keracolor FF**, while still fresh, from the surface by moving the float diagonally across the joints.

Finishing

When the mixture loses its plasticity and becomes matt, usually after 10-20 minutes, clean excess **Keracolor FF** with the hard cellulose sponge **Mapei CELLULOSE Cleaning Grout Sponge** dampened with water, working diagonally to the joints.

Rinse the sponge frequently using two separate buckets of water: one to remove the excess of product from the sponge and the other with clean water for rinsing out the sponge. Cleaning can also be carried out with a grout sponge machine.

To aid removal of the hardened product from the tiles, use a dampened float with abrasive pad **Mapei Scotch Brite Clean Grout KIT** 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 grout may be dragged from the joint, leading to colour variation. 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.

Wet curing of **Keracolor FF** always improves its final performance.

Any residual powdery haze can be cleaned from the surface with a clean, dry cloth.

After the final cleaning, if the surface of the floors or walls is still contaminated with cementitious residues, an acid cleaner can be used (e.g. **UltraCare Keranet**), when the grout is completely cured.

If a product to remove grout residues at the time of application is required, the use of **UltraCare Keranet Easy**, suitable for removing excess grout from surfaces immediately after application, is recommended.

For the use of products from the **UltraCare** range, please refer to the relative Techincal Data Sheets.



*Application of **Keracolor FF** with **Mapei Rubber Float dual profile for Grout***



*Cleaning and finishing joints with **Mapei CELLULOSE Cleaning Grout Sponge***



*Floor grouted with **Keracolor FF***

SET TO LIGHT FOOT TRAFFIC

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

READY FOR USE

(with hypothetical curing at +23°C and 50% R-H.)

Floors are ready for use after approx. 3 days. Swimming pools and tanks can be filled 7 days after grouting.

CLEANING

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

CONSUMPTION

Consumption of **Keracolor FF** varies depending on the width of the joints, the size and thickness of the tiles. Please refer to the product calculator to estimate consumption rates at www.mapei.com. Some examples of coverage in kg/m² are shown in the chart overleaf.

CONSUMPTION TABLE DEPENDING ON THE SIZE OF THE TILE AND WIDTH OF THE JOINTS (kg/m²)

Size of the tile (mm)	Width of the joint (mm)		
	2	3	5
75x150x6	0.4	0.5	0.9
100x100x7	0.4	0.6	1.1
100x100x9	0.5	0.8	1.4
150x150x6	0.2	0.4	0.6
200x200x7	0.2	0.3	0.5
200x200x9	0.3	0.4	0.7
300x300x10		0.3	0.5
300x300x20		0.6	1.0
300x600x10		0.2	0.4
400x400x10		0.2	0.4
500x500x10			0.3
600x600x10			0.3
750x750x10			0.2
100x600x9			0.8
150x600x9			0.6
150x900x9			0.5

150x1200x10			0.6
225x450x9			0.5
225x900x9			0.4
250x900x9			0.3
250x1200x10			0.4
600x600x5			0.1
600x600x3			0.1

CONSUMPTION CALCULATION FORMULA:

$$\frac{(A + B)}{(A \times B)} \times C \times D \times 1.5 = \frac{kg}{m^2}$$

A = length of tile (in mm)

B = width of the tile (in mm)

C = thickness of the tile (in mm)

D = width of the joint (in mm)

PACKAGING

25 kg bags and boxes containing 4x5 alupacks depending on the colour.

COLOURS

Keracolor FF is available in 18 colours from the MAPEI range.

Keracolor FF		
100	WHITE	
103	MOON WHITE	
110	MANHATTAN	
111	SILVER GREY	
112	MEDIUM GREY	
113	CEMENT GREY	
114	ANTHRACITE	
123	ANCIENT WHITE	
130	JASMINE	

132	BEIGE 2000	
133	SAND	
134	SILK	
135	GOLDEN DUST	
137	CARIBBEAN	
141	CARAMEL	
142	BROWN	
144	CHOCOLATE	
188	BISCUIT	

N.B.: Due to the printing processes involved, the colours should be taken as merely indicative of the shades of the actual product

STORAGE

Keracolor FF can be stored for 12 months for 25 kg bags and 24 months for 5 kg bags in a dry place in the original packaging. Always refer to the date present on the packaging.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND INSTALLATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)
In compliance with:
– European EN 13888 as CG2WA
– ISO 13007 as CG2WA

PRODUCT IDENTITY	
Type:	fine powder
Colour:	18 colours from the MAPEI range
Bulk density:	1,000-1,400 kg/m^3
Dry solids content:	100%
EMICODE:	EC1 Plus - very low emission

APPLICATION DATA (at +23°C and 50% R.H.)	
Mixing ratio:	100 parts of **Keracolor FF** with 23-30 parts of water by weight depending on the colour
Consistency of mix:	pasta fluida
Density of the mix:	2.000 kg/m^3
pH of mix:	approx. 13
Pot life of mix:	approx. 2 h
Application temperature:	from +5°C to +35°C
Grouting after installation:	
– on walls bonded with normal setting adhesive:	4-8 h
– on walls bonded with fast setting adhesive:	1-2 h
– on walls laid with mortar:	2-3 days
– on floors bonded with normal setting adhesive:	24 h
– on floors bonded with fast setting adhesive:	3-4 h
– on floors laid with mortar:	7-10 days
Waiting time for finishing:	10-20 minutes
Set to foot traffic:	24 h
Ready for use:	3 days (7 days for tanks and swimming pools)

FINAL PERFORMANCE	
Flexural strength after 28 days: **Compressive strength after 28 days:** **Flexural strength after freeze-thaw cycles:** **Compressive strength after freeze-thaw cycles:** **Abrasion resistance:** **Shrinkage:** **Water absorption after 30 min.:** **Water absorption after 4 hours:**	In compliance with European Norm EN 13888 as CG2WA
Resistance to moisture:	excellent
Resistance to ageing:	excellent
Resistance to solvents, oils and alkalis:	excellent
Resistance to acids:	good if pH > 3
Resistance to temperature:	from –30°C to +80°C

WARNING

Although the technical details and recommendations contained in this product data sheet 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 application; 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.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in effect at the time of the MAPEI product installation.

For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com.

ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.

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