Fugabella® Eco Flex

Certified, eco-friendly, naturally bacteriostatic and fungistatic, rapid setting and hardening mineral grout stabilized with pure NHL 5 natural lime mortar for extremely colour-fast joints from 2 mm to 12 mm in thickness, ideal for use in GreenBuilding. Single-component with very low volatile organic compound emissions, recyclable as an inert material at the end of its life.

Fugabella® Eco Flex is very easy to clean and surfaces are quickly ready for normal use, even at low temperatures, ensuring resistance by creating a water-drop effect on floors and coverings exposed to heavy rainfall or frequent washing.

GREENBUILDING RATING®

Fugabella® Eco Flex
- Category: Inorganic Mineral Products
- Class: Mineral grouts
- Rating*: Eco 2

* Rating based on average colour formulations

eco2	Regional Mineral ≥ 40%	Recycled / Regional Mineral ≥ 30%	CO_2 ≤ 250 g/kg	Low Emission IAQ VOC Indoor Air Quality	Recyclable
				✓	✓
				Very low VOC emissions	Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

ECO NOTES

- Can be recycled as mineral inert material, avoiding waste disposal costs and environmental impact
- Natural bacteriostatic product stabilized with pure natural lime to avoid the use of pesticide additives

PRODUCT STRENGTHS

- Floors and walls, for internal and external use
- Fine-grain finish
- Superior flexibility
- Water-repellent compound with water-drop effect
- High CATAS-tested colour fastness
- Colour uniformity
- Collections of 7 colours: Classic, Design
- Suitable for porcelain tiles, ceramics, low thickness slabs and natural stone
- Easy to clean and maintain
- Suitable for underfloor heating systems

AREAS OF USE

Use
High-performance grouting of joints from 2 to 12 mm, with smooth finish, high degree of hardness, water-repellence with water-drop effect, rapid setting and hardening.

Materials to be grouted:
- porcelain tiles, low thickness slabs, ceramic tiles, klinker, cotto, glass and ceramic mosaic, of all types and formats
- natural stone, recomposed materials, marble

Internal and external flooring and walls, in domestic, commercial and industrial applications and street furniture, in environments subject to heavy traffic, swimming pools, baths and fountains, also in areas subject to thermal shock and freezing.

Do not use
On joints less than 2 mm and more than 12 mm in width, on floors and walls where specific chemical resistances or absolutely no water absorption are required; to grout elastic expansion or fractionising joints; on substrates which are highly deformable, not perfectly dry or subject to moisture rising.

* ÉMISSION DANS L'AIR INTÉRIEUR Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).

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INSTRUCTIONS FOR USE

Preparation of substrates
Before grouting joints, check that tiles have been laid correctly and are anchored perfectly to the substrate. Substrates must be perfectly dry. Grout joints in accordance with the recommended waiting time indicated on the relative data sheet for the adhesive used. For mortar substrates, wait at least 7 – 14 days depending on screed thickness, ambient weather conditions and on the level of absorption of the covering and the substrate. Any water or moisture rising can cause salt to build up on the surface of the grout or cause shade variations on account of the uneven evaporation of remaining water through the grout.
Joints must be free from any excess adhesive, even if already hardened, and must be of an even depth of at least $^2/_3$ of the overall thickness of the tile covering. This is necessary to prevent different drying times of each different thickness, with subsequent shade variations.
Any dust and loose debris must be removed from the joints by carefully cleaning them with a vacuum cleaner. In the case of highly absorbent tiles or high temperatures, a damp sponge should be passed across the surface of the tilework prior to grouting joints, in order to prevent any water stagnation.
Before grouting joints with contrasting colours, check the cleanability, as highly porous surfaces may make cleaning difficult. It is advisable to perform a preliminary test on tiles not to be laid or in a small, concealed area. In these cases we recommend treating the covering with specific protective products, being careful to avoid applying them to the joints.

Preparation
Prepare Fugabella® Eco Flex in a clean container, first of all pouring in a quantity of water equal to approximately ¾ of the amount required. Gradually add Fugabella® Eco Flex to the container, mixing the paste from the bottom upwards with a low-rev (≈ 400/min) helicoidal agitator. Add more water until the desired consistency is obtained. The mixture must be of smooth consistency and without any lumps. For best results, and to mix larger quantities of the grout, a stirring device with vertical blades and slow rotation is recommended. Specific polymers with high-dispersion properties ensure that Fugabella® Eco Flex is immediately ready-to-use. As this is a rapid-setting grout, only mix an amount that can be used in full within 30 minutes at +23 °C/50% R.H. The amount of water to be added, indicated on the packaging, is an approximate guide and will vary depending on the different colours. It is possible to obtain mixtures with consistency of variable thixotropy according to the application to be made. Adding extra water does not improve the workability and the cleanability of the grout, and may cause shrinkage in the plastic phase of drying and result in less effective final performance. Prepare all mixtures required to complete the process using the same amount of water, in order to avoid any variations in grout shade.

Application
Fugabella® Eco Flex must be applied evenly on the tile covering with a spreader or hard rubber float. Grout material has to be completely filled between entire joint areas, the application has to be done diagonally with respect to the joints. Remove most of the excess grout immediately, leaving only a thin film on the tile.

Cleaning
Begin cleaning the tilework when the grout starts to become hard into the joint. On completion, clean up the surface using a thick, large-sized sponge damped in clean water to avoid removing grout from the joints. Make sure clean water is used at all times, using appropriate trays with grills and cleaning rollers for the sponge. Use circular movements to soften the film of hardened grout on the tiles. Finish cleaning up by dragging the sponge diagonally across the tiles while applying water evenly over the tiles, in order to prevent any shade variations. Residual traces of grout can be removed from tools with water before the product has hardened.

SPECIAL NOTES

When using Fugabella® Eco Flex to grout joints in large surface areas, use suitable electrical equipment to increase application speed and cleaning times. In particular, cleaning with electric sponges can be easily carried out and ensures superior coverage and perfect results in aesthetic terms.

Before grouting highly porous surface coverings, or at high temperatures, it is advisable to wipe a damp sponge over the surface to counteract the porosity or to cool the surface, being careful not to cause water to stagnate in the joints.

ABSTRACT

Certified, high-performance grouting of ceramic tiles, porcelain tiles, low thickness slabs, marble and natural stone with eco-friendly, naturally bacteriostatic and fungistatic mineral grout with high colour fastness, compliant with standard ISO 13007-3 - class CG2F WA, GreenBuilding Rating® Eco 2, such as Fugabella® Eco Flex by Kerakoll Spa. Joints must be dry and free from traces of adhesive and loose debris. Use a spreader or hard rubber float to apply the grout and suitable sponges and clean water to clean joints on completion. Joints of ____ mm width and tiles ____ x ____ cm in size will give an average coverage of approx. ____ kg/m². Existing elastic expansion and fractionizing joints must be respected.

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TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	Coloured pre-mixed	
Apparent volumetric mass	≈ 1,25 kg/dm³	UEAtc/CSTB 2435
Mineralogical nature of inert material	silicate - crystalline carbonate	
Average granulometric composition	≈ 140 µm	
Shelf life	≈ 6 months in the original packaging in dry environment	
Pack	25 kg - 5 kg bags	
Mixing water	≈ 4,5 ℓ / 1 bag 25 kg / ≈ 0,9 ℓ / 1 bag 5 kg	
Specific weight of the mixture	≈ 1,86 kg/dm³	UNI 7121
Pot life	≥ 30 min.	
Temperature range for application	from +5 °C to +30 °C	
Width of joints	from 2 to 12 mm	
Foot traffic	≈ 3 h	
Grouting after laying:		
- with adhesive	see characteristics of adhesive	
- mortar	≈ 7 – 14 days	
Interval before normal use	≈ 24 h	
Coverage	see Coverage table	

Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site, i.e.temperature, ventilation and absorbency level of the substrate and of the materials laid.

COVERAGE TABLE

	Format	Thickness	grammes/m² joint width				
			1 mm	2 mm	3 mm	5 mm	10 mm
Mosaic	2x2 cm	3 mm	≈ 580	≈ 1160	≈ 1740	≈ 2900	≈ 5800
	5x5 cm	4 mm	≈ 320	≈ 640	≈ 960	≈ 1600	≈ 3200
Tiles Marble	30x60 cm	4 mm	≈ 40	≈ 80	≈ 120	≈ 200	≈ 400
	60x60 cm	4 mm	≈ 30	≈ 60	≈ 90	≈ 150	≈ 300
	20x20 cm	8 mm	≈ 165	≈ 330	≈ 495	≈ 825	≈ 1650
	30x30 cm	9 mm	≈ 125	≈ 250	≈ 375	≈ 625	≈ 1250
	40x40 cm	10 mm	≈ 105	≈ 210	≈ 315	≈ 525	≈ 1050
	60x60 cm	10 mm	≈ 70	≈ 140	≈ 210	≈ 350	≈ 700
	30x60 cm	10 mm	≈ 100	≈ 200	≈ 300	≈ 500	≈ 1000
	20x20 cm	14 mm	≈ 285	≈ 570	≈ 855	≈ 1425	≈ 2850
	30x30 cm	14 mm	≈ 190	≈ 380	≈ 570	≈ 950	≈ 1900
Terracotta Klinker	30x30 cm	15 mm	≈ 205	≈ 410	≈ 615	≈ 1025	≈ 2050
	12,5x24,5 cm	12 mm	≈ 295	≈ 590	≈ 885	≈ 1475	≈ 2950

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PERFORMANCE

VOC INDOOR AIR QUALITY (IAQ) - VOLATILE ORGANIC COMPOUND EMISSIONS		
Conformity	EC 1-R GEV-Emicode	GEV certified 1961/11.01.02
HIGH-TECH		
Flexural strength after 28 days	≥ 10 N/mm²	EN 12808-3
Compressive strength after 24 hrs	≥ 15 N/mm²	ISO 13007-4.1.4
Compressive strength after 28 days	≥ 52 N/mm²	ISO 13007-4.1.4
Resistance to frost-thaw cycles:		
- Flexural	≥ 5,5 N/mm²	EN 12808-3
- Compressive	≥ 55 N/mm²	EN 12808-3
Resistance to abrasion after 28 days	≤ 302 mm³	EN 12808-2
Water absorption after 30 min.	≤ 0,8 g	EN 12808-5
Water absorption after 240 min.	≤ 1,8 g	EN 12808-5
Colour Fastness	see colour chart	UNI EN ISO 105-A05
Resistance to fungal contamination	class F+	CSTB SB-08-103
Resistance to bacterial contamination	class B+	CSTB SB-2008-097
Working temperature	from -40 °C to +90 °C	
Conformity	CG2F WA	ISO 13007-3

Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

COLOUR CHART

	Fugabella® Eco Flex Colours	Colour Fastness* GSc (Daylight) Standard EN ISO 105-A05
03 Pearl Grey		4,5
04 Iron Grey		4,5
05 Anthracite		4,5
08 Bahama Beige		4
12 Walnut		5
45 Limestone		4,5
44 Cement Grey		4,5

Legend		
	from 5 to 4	high colour fastness; for internal and external use
	from 3.5 to 3	good colour fastness; for internal and external use
	from 2.5 to 1	limited colour fastness; for internal use

The shades shown are intended as an indication only.

WARNING

- **Product for professional use**
- abide by any standards and national regulations
- in swimming pools, check the suitability of the product based on the type of water and the type of chemical or physical treatment used
- grout shades are not reproducible and may even vary during application, as a result of application techniques and ambient conditions during and immediately after the grout has been applied
- workability times may vary considerably, depending on environmental conditions and on tile and substrate absorbency
- protect the grout from direct rainfall and sun for at least 12 hours after application
- in warm climates cool the surface and mix the grout with cold water
- Grouting joints on substrates that are still damp will cause variations in the grout
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll Worldwide Global Service +39 0536 811 516 - globalservice@kerakoll.com

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Kerakoll Quality System ISO 9001 CERTIFIED IT10/0327
Kerakoll Quality System ISO 14001 CERTIFIED IT242729/UK
Kerakoll Quality System BS 18001 CERTIFIED IT255412/UK

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