

# Fugabella® Eco 2-20

**Certified, eco-friendly, naturally bacteriostatic and fungistatic, stabilized, normal setting and rapid hardening mineral grout containing pure natural NHL 5 lime for extremely colour-fast joints from 2 mm to 20 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 2-20 develops a medium-grain, semi-fluid rheology for homogeneous extended-workability and rapid-hardening mixtures, achieving high levels of mechanical resistance in a very short time making it possible to return floors to normal use quickly.



## GREENBUILDING RATING®

### Fugabella® Eco 2-20

- Category: Inorganic Mineral Products
- Class: Mineral grouts
- Rating\*: Eco 2

\* Rating based on average colour formulations

				 Very low VOC emissions	 Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

## PRODUCT STRENGTHS

- Floors and walls, for internal and external use
- High CATAS-tested colour fastness
- Colour uniformity
- Water-repellent and low absorption
- Classic 4-colour collection
- Ideal for porcelain tile floors
- Suitable for porcelain tiles, ceramics, low thickness slabs and natural stone
- Easy to clean and maintain
- Suitable for underfloor heating systems



## 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

## AREAS OF USE

### Use

High-performance grouting of joints from 2 to 20 mm, water-repellent with water-drop effect, smooth calibrated finish, easy to apply and quick to clean.

### Materials to be grouted:

- porcelain tiles, low absorption ceramic tiles, klinker of all sizes
- 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 20 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).

## 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  $\frac{2}{3}$  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 from being left in the joints.

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 2-20 in a clean container, first of all pouring in a quantity of water equal to approximately  $\frac{3}{4}$  of that which will be required. Gradually add Fugabella® Eco 2-20 to the container, mixing the paste from the bottom upwards with a low-rev ( $\approx 400$ /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 2-20 is immediately ready for use. 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 2-20 must be applied evenly on the tile covering with a spreader or hard rubber float. Seal the entire surface by completely grout the joints, applying the grout diagonally to the tiles. 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 firm 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 and finish cleaning the joint surface. An electric sponge grout remover is recommended for large surface areas. 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

The partial or full replacement of mixing water with Fugaflex Eco eco-friendly, flexibilizing latex for cement-based grouts, gives increased flexibility to Fugabella® Eco 2-20, reduces the elastic modulus, increases resistance to water and substrate adhesion. Its use is recommended in the following specific applications: laying on wooden floors, laying large slabs ( $\geq 900 \text{ cm}^2$ ) on facades, laying on substrates or using materials with high thermal expansion or where surfaces are to be subsequently smoothed.

Before grouting cotto or other 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 leave water in the joints.

## ABSTRACT

*Certified, high-performance grouting of ceramic tiles, porcelain tiles, marble and natural stone made with eco-friendly, naturally bacteriostatic and fungistatic mineral grout with high colour fastness, compliant with ISO 13007-3 standard – class CG2F WA, GreenBuilding Rating® Eco 2, such as Fugabella® Eco 2-20 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/m<sup>2</sup>. Existing elastic expansion and fractionizing joints must be respected.*

## TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	Coloured pre-mixed	
Apparent volumetric mass	≈ 1,36 kg/dm <sup>3</sup>	UEAtc/CSTB 2435
Mineralogical nature of inert material	silicate - crystalline carbonate	
Average granulometric composition	≈ 300 μm	
Shelf life	≈ 12 months in the original packaging in dry environment	
Pack	25 kg bags	
Mixing water	≈ 5 ℓ / 1 bag 25 kg – ≈ 1 ℓ / 1 bag 5 kg	
Specific weight of the mixture	≈ 2,1 kg/dm <sup>3</sup>	UNI 7121
Pot life	≥ 100 min.	
Temperature range for application	from +5 °C to +35 °C	
Width of joints	from 2 to 20 mm	
Foot traffic	≈ 12 hrs	
Grouting after laying:		
- with adhesive	see characteristics of adhesive	
- mortar	≈ 7 – 14 gg	
Interval before normal use	≈ 24 hrs	
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/m <sup>2</sup> joint width			
			1 mm	3 mm	10 mm	20 mm
Tiles	30x60 cm	4 mm	≈ 45	≈ 135	≈ 450	≈ 900
Marble	60x60 cm	4 mm	≈ 30	≈ 90	≈ 300	≈ 600
	20x20 cm	8 mm	≈ 170	≈ 510	≈ 1700	≈ 3400
	30x30 cm	9 mm	≈ 130	≈ 390	≈ 1300	≈ 2600
	40x40 cm	10 mm	≈ 110	≈ 330	≈ 1100	≈ 2200
	30x60 cm	10 mm	≈ 110	≈ 330	≈ 1100	≈ 2200
	60x60 cm	10 mm	≈ 75	≈ 225	≈ 750	≈ 1500
	20x20 cm	14 mm	≈ 300	≈ 900	≈ 3000	≈ 6000
	30x30 cm	14 mm	≈ 300	≈ 900	≈ 3000	≈ 6000
	Terracotta	30x30 cm	15 mm	≈ 215	≈ 675	≈ 2150
Klinker	12,5x24,5 cm	12 mm	≈ 310	≈ 630	≈ 2100	≈ 4200





## PERFORMANCE

### VOC INDOOR AIR QUALITY (IAQ) - VOLATILE ORGANIC COMPOUND EMISSIONS

Conformity	EC 1-R plus GEV-Emicode	GEV certified 1957/11.01.02
<b>HIGH-TECH</b>		
Flexural strength after 28 days	≥ 10 N/mm <sup>2</sup>	EN 12808-3
Compressive strength after 24 hrs	≥ 15 N/mm <sup>2</sup>	ISO 13007-4.1.4
Compressive strength after 28 days	≥ 55 N/mm <sup>2</sup>	ISO 13007-4.1.4
Resistance to frost-thaw cycles:		
- flexural	≥ 5,5 N/mm <sup>2</sup>	EN 12808-3
- compressive	≥ 55 N/mm <sup>2</sup>	EN 12808-3
Resistance to abrasion after 28 days	≤ 302 mm <sup>3</sup>	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

Rilevazione dati a +23 °C di temperatura, 50% U.R. e assenza di ventilazione. Data may vary depending on specific conditions at the building site.

## COLOUR CHART

Fugabella® Eco 2-20 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

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

## WARNING

- **Product for professional use**
- abide by any standards and national regulations
- applying powdered Fugabella® Eco 2-20 to flooring in order to reduce cleaning times will cause shade variations in the filler
- 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
- 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](mailto:globalservice@kerakoll.com)

The Eco and Bio classifications refer to the GreenBuilding Rating® Manual 2013. This information was last updated in May 2014 (ref. GBR Data Report - 06.14); please note that additions and/or amendments may be made over time by KERAKOLL SpA, for the latest version, see [www.kerakoll.com](http://www.kerakoll.com). KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.

Kerakoll  
Quality  
System

ISO 9001  
CERTIFIED

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