

Fugabella® Eco 2-12

Eco-friendly, natural bacteriostatic and fungistatic, stabilized mineral grout containing pure NHL (natural hydraulic lime) 5 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 2-12 develops fine-grain, high-thixotropy, specific rheology to decorate floors quickly, fill joints fully and leave the surface easy to clean, whatever the conditions.



Product Strengths

- High hardness
- Water-repellent and low absorption
- Floors and walls, for internal and external use
- High CATAS-tested colour fastness
- Classic 12-colour collection
- Colour uniformity
- Ideal for homogeneous tile floors
- Suitable for homogeneous tiles, ceramics, low thickness slabs and natural stone
- Easy to clean and maintain



GreenBuilding Rating

	 Mineral ≥ 60%	 Recycled Mineral ≥ 30%	 ≤ 250 g/kg	 Low Emission	 Recyclable
	Natural mineral content 60%			Very low VOC emissions 49 µg/m ³	Can be recycled as inert material

Fugabella® Eco 2-12

- Category: Inorganic Mineral Products
- Class: Mineral Grouts
- Rating*: Eco 3

* Rating calculated on an average of the colour formulae

Areas of use

Use

High-performance grouting of joints from 2 to 12 mm with smooth, calibrated finish and reduced water absorption.

Suitable to grout:

- homogeneous tiles, low thickness slabs, ceramic tiles, klinker, cotto, glass and ceramic mosaic, of all types and formats
- natural stone, agglomerate materials, marble

Floors and walls, for internal and external use, in domestic, commercial and industrial applications, for environments subject to heavy traffic, swimming pools, tanks and fountains and also in areas subject to thermal shock and freezing.

Do not use

On joints less than 2 mm or more than 12 mm in width, on floors and walls where specific chemical resistances or absolutely no water absorbency are required; to fill elastic expansion or fractionizing joints; on substrates which are highly deformable, not fully dry or subject to moisture rising.

Instructions for use

Preparation of substrates

Before grouting check that tiles have been laid correctly and are anchored perfectly to the substrate. Substrates must be perfectly dry. Fill 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 width of the tile covering, this is necessary to prevent different drying times of each different thickness, with subsequent shade variations.

Any dust and flaky parts must be removed from joints by carefully cleaning them with electric dust extraction equipment. 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 in order to prevent any water stagnation.

Before grouting with bright or 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 this case we recommend treating the covering with specific protective products, being careful to avoid applying it to the joints.

Preparation

Prepare Fugabella® Eco 2-12 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 2-12 to the water in the container, mixing the paste from the bottom upwards with a low-rev ($\approx 400/\text{min.}$) helicoidal agitator. Add more water until the desired consistency is obtained, the mixture must be homogeneous 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 2-12 is immediately ready for use. The amount of water to be added, indicated on the packaging, is an approximate value and will vary depending on the different colours. It is possible to obtain mixtures with a more or less thixotropic consistency, depending on the type of application. 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 2-12 must be applied evenly on the tile covering with a spreader or hard rubber float. Seal the entire surface area by completely filling all joints, applying the grout diagonally to the tiles. Remove most of the excess grout immediately, leaving only a thin film on the tiles. Begin cleaning the tilework when the grout starts to firm. On completion, clean up the surface using a thick, large-sized sponge damped in clean water to avoid removing grout from the joints. Ensure clean water is used at all times by using appropriate trays and grills with sponge cleaning rollers. Use circular movements to soften the hardened film of grout on the tiles. 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.

Cleaning

Residual traces of grout can be removed from equipment with water before the product has hardened.

Special notes

Full or partial replacement of mixing water with Fugaflex Eco, with Fugaflex Eco eco-friendly, flexibilizing latex for cement-based grouts, enhances the flexibility of Fugabella® Eco 2-12, reducing the elasticity modulus, increasing resistance to water and substrate adhesion. Its use is recommended in the following specific applications: laying on wooden flooring, surface laying of large formats ($\geq 900 \text{ cm}^2$), laying on substrates or using materials with high thermal expansion or where surfaces are to be subsequently smoothed.

Before grouting on cotto or other highly porous surface coverings, or for high temperature, it is advisable to wipe a damp sponge to counteract the porosity or to cool the surface, being careful however not to cause water to stagnate within joints.

Abstract

High-performance grouting of ceramic tiles, homogeneous tiles, low thickness slabs, marble and natural stone must be performed with eco-friendly, natural bacteriostatic and fungistatic mineral grout with high colour fastness, compliant with ISO 13007-3 – class CG2 WA, such as Fugabella® Eco 2-12 manufactured by Kerakoll. Joints must be dry and free from traces of adhesives and flaky parts. Use a spreader or hard rubber float to apply the joint grout and suitable sponges and clean water to clean joints on completion. Joints of ____ mm width and tiles ____ x ____ cm in size will lead to an average coverage of ≈ ____ kg/m². Existing elastic expansion and fractionizing joints must be respected.

Coverage

	Format	Thickness	g/m ² - joints width 1 mm				
			1 mm	2 mm	3 mm	5 mm	10 mm
Mosaic	2x2 cm	3 mm	≈ 535	≈ 1070	≈ 1605	≈ 2675	≈ 5350
	5x5 cm	4 mm	≈ 295	≈ 590	≈ 885	≈ 1475	≈ 2950
Ceramic and homogeneous tiles	10x10 cm	6 mm	≈ 230	≈ 460	≈ 690	≈ 1150	≈ 2300
	20x10 cm	6 mm	≈ 170	≈ 340	≈ 510	≈ 850	≈ 1700
	30x20 cm	8 mm	≈ 130	≈ 260	≈ 390	≈ 650	≈ 1300
	30x30 cm	8 mm	≈ 100	≈ 200	≈ 300	≈ 500	≈ 1000
	60x30 cm	10 mm	≈ 95	≈ 190	≈ 285	≈ 475	≈ 950
	60x60 cm	10 mm	≈ 65	≈ 130	≈ 195	≈ 325	≈ 650
	100x100 cm	12 mm	≈ 45	≈ 90	≈ 135	≈ 225	≈ 450
Granite and marble	150x100 cm	12 mm	≈ 40	≈ 80	≈ 120	≈ 200	≈ 400
	150x100 cm	25 mm	≈ 80	≈ 160	≈ 240	≈ 400	≈ 800
	200x100 cm	25 mm	≈ 70	≈ 140	≈ 210	≈ 350	≈ 700

Technical data Compliant with Kerakoll Quality Standard

Appearance	coloured pre-mixed	
Apparent volumetric mass	≈ 1.38 kg/dm ³	UEAtc/CSTB 2435
Mineralogical nature of inert material	silicate-crystalline carbonate	
Average granulometry	≈ 158 μm	
Shelf life	≈ 12 months in the original packaging in dry environment	
Packaging	bags 25 / 5 kg	
Mixing water	≈ 5.2 ℓ / 1 bag 25 kg – ≈ 1 ℓ / 1 bag 5 kg	
Specific weight of the mixture	≈ 2 kg/dm ³	UNI 7121
Pot life	≥ 180 min.	
Temperature range for application	from +5 °C to +35 °C	
Width of joints	from 2 to 12 mm	
Foot traffic	≈ 12 - 24 hrs	
Grouting after laying:		
- with adhesive	see characteristics of adhesive	
- mortar	≈ 7 - 14 days	
Interval before normal use	≈ 3 days	
Coverage	see coverage table	


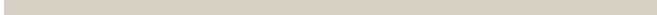
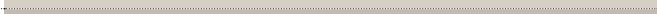

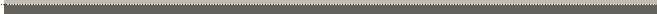
Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site: i.e. temperature, ventilation and absorbency level of the substrate and of the materials laid.

Performance High-Tech

Flexural strength after 28 days	≥ 7 N/mm ²	EN 12808-3
Compressive strength after 28 days	≥ 30 N/mm ²	EN 12808-3
Resistance after freeze/thaw cycles:		
- flexural	≥ 3.5 N/mm ²	EN 12808-3
- compressive	≥ 39 N/mm ²	EN 12808-3
Resistance to abrasion after 28 days	≤ 446 mm ³	EN 12808-2
Water absorption after 30 min.	≤ 1,5 g	EN 12808-5
Water absorption after 240 min.	≤ 3,5 g	EN 12808-5
Colour fastness	see colours table	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	CG2 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.

Colours

Fugabella® Eco 2-12 Colours		Colour Fastness* GSc (Daylight) EN ISO 105-A05 Standard
01 White		4
02 Light Grey		4
03 Pearl Grey		4,5
04 Iron Grey		4,5
05 Anthracite		4,5
06 Black		4,5
07 Jasmin		3,5
08 Bahama Beige		4
09 Caramel		4,5
10 Terracotta		4,5
11 Brown		4,5
12 Walnut		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

Warning

- **Product for professional use**
- abide by any standards and national regulations
- applying powdered Fugabella® Eco 2-12 to flooring in order to reduce cleaning times will cause shade variations in the grout
- 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 greatly depending on ambient conditions and on tile and substrate absorbency
- protect the product from direct rain and sunlight for at least 12 hours after application
- grouting on substrates that are still damp will cause variations in the grout
- if necessary, ask for the safety data sheet
- for further information please consult the Kerakoll India Global Service +91 93 2404 5205 - info@kerakollindia.com

This information was last updated in June 2010; please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see www.kerakoll.com. The Eco rating data refers to the GBR Data Report 02/2010. 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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