

# FUGALITE<sup>®</sup>BIO<sup>®</sup> Parquet



## Water-based resin for wood-effect grouting of ceramic parquet.

Fugalite<sup>®</sup> Bio Parquet is dermatologically-tested, with the result as hypoallergenic according to a skin tolerance medical experiment conducted at the University of Modena and Reggio Emilia dermatological clinic. Available in 12 natural hues inspired by the types of wood mainly used for making hardwood floor coverings. Guarantees the aesthetic and functional continuity of the ceramic parquet.



**GREENBUILDING RATING<sup>®</sup>**

**Fugalite<sup>®</sup> Bio Parquet**  
 - Category: Organic Mineral Products  
 - Class: Organic mineral grouts  
 - Rating\*: Eco 3

\* Rating based on average colour formulations

	Very low VOC emissions	Reduced solvent content 2,4 g/kg			Non-toxic and non-hazardous

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

**PRODUCT STRENGTHS**

- Wood effect – Reproduces the continuous surface of wood floors
- Internal and external flooring and walls
- Water-resistant – Drop effect, water-resistant, non-absorbent and does not change colour
- Patented – International patent no. 1403659 from the 31/10/2013
- Bacteriostatic – CSTB-tested. Prevents the proliferation of bacteria and moulds
- Stain proof – Tested by the Italian Ceramic Center – Bologna (Centro Ceramico Bologna). Can be cleaned easily
- Complies with HACCP/EC 852/2004 requirements for food hygiene

**ECO NOTES**

- Water-based, limits the risk of loads that could be harmful and dangerous to the environment during storage and transportation

**AREAS OF USE**

**Use**  
 Water-resistant grouting of joints from 0 to 5 mm with high chemical and mechanical resistance and a high level of hardness.

**Materials to be grouted:**

- **ceramic parquet**
- porcelain tiles, low thickness slabs, ceramic tiles, klinker, cotto, glass and ceramic mosaic, of all types and formats
- natural stone, recomposed materials, marble

Flooring and walls, for internal and external use, domestic, commercial and industrial applications and street furniture subject to permanent or occasional contact with chemical substances, in environments subject to heavy traffic, swimming pools, thermal water baths and fountains, heated floors, also in areas subject to thermal shock and freezing.

**Do not use**  
 On joints more than 5 mm in width, on porous flooring for which more specific or alternative chemical resistances are required compared with those listed in the chemical resistances table, to grout elastic expansion or fractionizing joints or on substrates that are not fully dry and 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).

The Italian Ceramic Center- Bologna (Centro Ceramico Bologna ) has carried out a stain resistance test according to UNI EN ISO 10545-14 (Test Report no. 3686/11)

## 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 vapour pressure to accumulate, which may in turn loosen the tiles on account of the complete non-absorbency of the grout or of the tiles themselves.

Joints must be free from any excess adhesive, even if already hardened. Furthermore they must be of an even depth for the whole width of the tile covering, thereby ensuring maximum chemical resistance. Any dust and loose debris must be removed from joints by carefully cleaning them with vacuum cleaner. The surface of the coating material to be grouted must be dry and free from dust or building dirt; any residual protective coatings must first be removed using specific products.

Before grouting joints, check the cleanability of the tile covering, as porous or highly micro-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.

### Preparation

Fugalite® Bio Parquet is prepared by mixing together parts A and B from the bottom upwards, using a low-rev ( $\approx 400/\text{min.}$ ) heli-cooidal agitator, respecting the preset ratio of 2 : 1 of the packs. Remix part B briefly and pour it into the bucket containing part A, being careful to mix the two parts uniformly until a smooth, even-coloured mixture is obtained. In any case, mix only enough grout that can be used in full within 45 minutes at  $+23\text{ }^{\circ}\text{C}$ , 50% R.H. Fugalite® Bio Parquet containers must be stored at a temperature of approx.  $+20\text{ }^{\circ}\text{C}$  for at least 2/3 days before use. Higher temperatures make the mixture too fluid and shorten hardening times, while lower temperatures make the mixture harder to spread and slow down setting times. At temperatures of less than  $+5\text{ }^{\circ}\text{C}$ , the product will no longer set.

### Application

Fugalite® Bio Parquet must be applied evenly on the tile covering with a hard rubber spreader. Seal the entire surface by completely grout the joints, applying the grout diagonally to the tiles. If grouting is to be on joints only, it is recommended that a test be carried out in advance before laying to ensure the surface can be properly cleaned. Remove most of the excess grout immediately using the spreader, leaving only a thin film on the tile.

### Cleaning

Begin cleaning the tilework when the grout is still fresh. On completion, clean up the surface using a thick, large-sized sponge, preferably made of cellulose, damped in clean water to avoid removing grout from the joints. Use circular movements to soften the film of grout on the tiles and finish cleaning the joint surface. Specific high-dispersion polymers ensure all grout residues are removed using only a small amount of water. The use of an excessive amount of water when cleaning would impair the final chemical resistances. It is important to rinse frequently and make sure clean water is used at all times, using appropriate trays and grills with cleaning rollers. If necessary, replace the sponge or felt cleaning pad when saturated with grout. Finish cleaning up by dragging the sponge diagonally across the tiles to avoid going into the joints. Once the grout has dried, any streaks can be removed using Fuga-Soap Eco, to be diluted in accordance with the working time and the amount of grout to be removed. Do not walk on floors that are still damp as dirt could still stick to them.

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

## SPECIAL NOTES

The level of slide for Fugalite® Bio Parquet can be improved when applying with low temperature coverings, or when the product itself has a low temperature, by diluting up to 2 % with clean water (about an espresso coffee cup for each 3 kg bucket).

Addition of Fuga-Wash Eco to the cleaning water gives a better detergent action on coating materials, keeps the sponge cleaner, improves the surface finish of grouting and cleans effectively without the need for rinsing.

## ABSTRACT

*Chemical and mechanical high-resistance grouting of ceramic tiles, porcelain tiles, glass mosaic, marble and natural stone is carried out using a patented and certified, eco-friendly, easy-to-work, hypoallergenic, water-based grout that is anti-bacterial and water and stain proof, for joints of between 0 and 5 mm with a high level of colour fastness and good chemical resistance, with GreenBuilding Rating® Eco 3, such as Fugalite® Bio Parquet 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	part A coloured paste / part B neutral paste
Specific weight	Part A $\approx 1.53 \text{ kg/dm}^3$ / Part B $\approx 1.50 \text{ kg/dm}^3$
Viscosity	$\approx 120000 \text{ mPa} \cdot \text{s}$ , rotor 93 RPM 10 <span style="float: right;">Brookfield method</span>
Mineralogical nature of inert material	silicate - crystalline
Chemical nature	epoxy resin (part A) / polyamines (part B)
Grading	$\approx 0 - 250 \mu\text{m}$
Shelf life	$\approx 18$ months in the original packaging
Warning	Protect from frost, avoid direct exposure to sunlight and sources of heat
Pack	Part A: 2 kg bucket / Part B: 1 kg bucket
Mixing ratio	Part A : Part B = 2 : 1
Specific weight of the mixture	$\approx 1,512 \text{ kg/dm}^3$
Pot life at +23 °C	$\geq 45$ min.
Temperature range for application	from +5 °C to +30 °C
Width of joints	from 0 to 5 mm
Foot traffic:	
- at +23 °C	$\approx 24$ hrs
- at +5 °C	$\approx 48$ hrs
Grouting after laying:	
- with adhesive	see characteristics of adhesive
Interval before normal use	$\approx 3$ days (mechanical resist.) / $\approx 7$ days (chemical resist. and swimming pools)
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	2 mm	5 mm
ceramic parquet	13,5x80 cm	10 mm	$\approx 175$	$\approx 350$	$\approx 875$
	20x80 cm	10 mm	$\approx 125$	$\approx 250$	$\approx 625$
	40x80 cm	10 mm	$\approx 75$	$\approx 150$	$\approx 375$
	11x90 cm	10 mm	$\approx 205$	$\approx 410$	$\approx 1025$
	15x90 cm	10 mm	$\approx 155$	$\approx 310$	$\approx 775$
	22,5x90 cm	10 mm	$\approx 110$	$\approx 220$	$\approx 550$
	10x120 cm	10 mm	$\approx 215$	$\approx 430$	$\approx 1075$
	15x120 cm	10 mm	$\approx 150$	$\approx 300$	$\approx 750$
	20x120 cm	10 mm	$\approx 120$	$\approx 240$	$\approx 600$
	30x120 cm	10 mm	$\approx 85$	$\approx 170$	$\approx 425$
	60x120 cm	10 mm	$\approx 50$	$\approx 100$	$\approx 250$
Mosaic	2x2 cm	3 mm	$\approx 560$	$\approx 1.120$	–
	5x5 cm	4 mm	$\approx 305$	$\approx 610$	–
Tiles	30x60 cm	4 mm	$\approx 40$	$\approx 80$	$\approx 200$
	50x50 cm	4 mm	$\approx 30$	$\approx 60$	$\approx 150$
	60x60 cm	4 mm	$\approx 25$	$\approx 50$	$\approx 125$
	100x100 cm	4 mm	$\approx 15$	$\approx 30$	$\approx 75$
	30x30 cm	9 mm	$\approx 115$	$\approx 230$	$\approx 575$
	40x40 cm	10 mm	$\approx 95$	$\approx 190$	$\approx 475$
	30x60 cm	10 mm	$\approx 95$	$\approx 190$	$\approx 475$
	60x60 cm	10 mm	$\approx 65$	$\approx 130$	$\approx 325$
	100x100 cm	10 mm	$\approx 40$	$\approx 80$	$\approx 200$
	20x20 cm	14 mm	$\approx 270$	$\approx 540$	$\approx 1.350$
	30x30 cm	14 mm	$\approx 180$	$\approx 360$	$\approx 900$

## PERFORMANCE

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

Conformity EC 1 plus GEV-Emicode GEV certified 5206/11.01.02

### CE MED MARK

Obtained with a quantity of Fugalite® Bio Parquet:

- maximum density per area	1475 g/m <sup>2</sup>
- thickness when used as an adhesive	0,9 ± 0,1 mm
- thickness when used as a grout	3,9 ± 0,1 mm

### HIGH-TECH

Static modulus of elasticity	≈ 1230 MPa	ISO 178
Resistance to abrasion	≈ 203 mm <sup>3</sup>	EN 12808-2
Water absorption after 240 min.	≈ 0,06 g	EN 12808-5
Working temperature	from -40 °C to +80 °C	
Colour fastness according to UNI EN ISO 105-A05	see table	
Resistance to bacterial contamination	class B+	CSTB 2010-081
Porcelain tiles/concrete tensile strength	≥ 2,5 N/mm <sup>2</sup>	EN 1348
Initial shear strength	≥ 5 N/mm <sup>2</sup>	EN 12003
Shear strength after water immersion	≥ 5 N/mm <sup>2</sup>	EN 12003
Shear strength after thermal shock	≥ 2 N/mm <sup>2</sup>	EN 12003
Open time: tensile adhesion	≥ 3 N/mm <sup>2</sup>	EN 1346
Resistance to iodine stains	class 4	ISO 10545-14
Resistance to olive oil stains	class 5	ISO 10545-14
Resistance to chromium stains	class 3	ISO 10545-14

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

## CHEMICAL RESISTANCE (EN 12808-1)

Acids	Concentration	Permanent contact	Occasional contact
Acetic	2,5%	•	•••
	5%	•	••
	10%	•	•
Hydrochloric	37%	••	•••
	10%	••	•••
Formic	2,5%	•	•
	10%	•	•
Phosphoric	50%	••	•••
	75%	•	••
Lactic	2,5%	•	•••
	5%	•	••
	10%	•	•
Nitric	25%	•	••
	50%	•	•
Oleic	100%	•	•
	100%	•	•
Sulphuric	50%	•••	•••
	100%	•	•
Tannic	10%	••	•••
Tartaric	10%	••	•••

Legend  
 ••• Excellent  
 •• Good  
 • poor

Values taken at: - ambient +23 °C / 50% R.H. - chemical aggressive agent +23 °C  
 N.B. N.B Values taken only of mechanical resistance after chemical attack..

**CHEMICAL RESISTANCE (EN 12808-1)**

<b>Foodstuffs</b>		<b>Main foodstuffs (temporary contact)</b>	
Vinegar		••	
Citrus fruits		••	
Ethyl alcohol		••	
Beer		•••	
Butter		•••	
Coffee		•••	
Casein		•••	
Glucose		•••	
Animal fat		•••	
Fresh milk		••	
Malt		•••	
Margarine		•••	
Olive oil		•••	
Soya oil		•••	
Pectin		•••	
Tomato		••	
Yoghurt		••	
Sugar		•••	
<b>Fuels and Oils</b>		<b>Permanent contact</b>	<b>Occasional contact</b>
Petrol		•	•••
Diesel oil		••	•••
Coal tar oil		••	••
Mineral oil		••	•••
Petroleum		•••	•••
mineral spirit		•	••
Turpentine		•	••
<b>Alkalis and Salts</b>		<b>Permanent contact</b>	<b>Occasional contact</b>
Concentration			
Oxygenated water	10%	••	•••
	25%	•	•••
Ammonia	25%	•	•••
Calcium chloride	Saturated Sol.	•••	•••
Sodium chloride	Saturated Sol.	•••	•••
Sodium hypochlorite	1,5%	•	•••
(Active chlorine)	13%	•	•
Caustic soda	50%	•••	•••
Aluminium sulphate	Saturated Sol.	•••	•••
Potassium hydroxide	50%	•••	•••
Potassium permanganate	5%	••	••
	10%	•	•

Legend    •••    Excellent  
               ••     Good  
               •      poor

Values taken at: - ambient +23 °C / 50% R.H. - chemical aggressive agent +23 °C  
 N.B Values taken only of mechanical resistance after chemical attack.

### CHEMICAL RESISTANCE (EN 12808-1)

Solvents	Permanent contact	Occasional contact
Acetone	•	•
Ethyl alcohol	•	•••
Benzol	•	••
Chloroform	•	•
Methylene chloride	•	•
Ethylene glycol	•••	•••
Perchloroethylene	•	••
Carbon tetrachloride	•	••
Tetrahydrofuran	•	•
Toluol	•	••
Trichloroethylene	•	•
Xylene	•	••

Legend

- Excellent
- Good
- poor

*Values taken at: - ambient +23 °C / 50% R.H. - chemical aggressive agent +23 °C  
N.B Values taken only of mechanical resistance after chemical attack.*

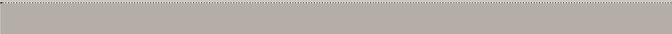
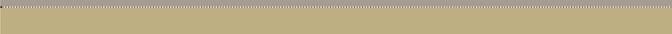
### RESISTANCE TO STAINS (ISO 10545-14)

Staining agents	Time exposed to staining agent: 24 hours	Time exposed to staining agent: 30 min.
Red wine	3	3
Mineral oil	5	5
Tomato ketchup	2	5
Mascara	5	5
Coffee	2	5
Hair dye	1	2

Legend

- 5 can be cleaned under a running hot tap while gently rubbing with a sponge
- 4 can be cleaned with a mild detergent while gently rubbing with a sponge
- 3 can be cleaned with a basic detergent while vigorously rubbing with a sponge
- 2 to clean, treat first with a solvent or aggressive acid or basic solution, then vigorously rub with a sponge
- 1 cannot be cleaned by any of the aforementioned methods

## COLOUR CHART

Fugalite® Bio Parquet colours		Colour Fastness* GSc (Daylight) EN ISO 105-A05 standard
54 Larix		4
55 Betula		3,5
56 Acer		3,5
57 Fraxinus		4
58 Fagus		4,5
59 Ulmus		4,5
60 Quercus		4,5
61 Castanea		4,5
62 Milicia		4,5
63 Afzelia		4,5
64 Tectona		4,5
65 Millettia		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 hues shown are intended as an indication only, for colour selection please refer to the Fugalite® Bio Parquet colour chart.*

## WARNING

- **Product for professional use**
- use at temperatures between +5 °C and +30 °C
- use packs which have been stored for 2/3 days before use at +20 °C
- respect the mixing ratio of 2 : 1. For partial mixing, weigh the two parts precisely
- workability times may vary considerably, depending on ambient conditions and the temperature of the tiles
- do not walk on floors that are still damp as dirt could still stick to them
- do not lay on substrates subject to moisture rising or which are not completely dry
- 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 November 2014 (ref. GBR Data Report - 11.14); 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.



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