

TECHNICAL GUIDE FOR THE BUILDING SITE

FLOOR AND COVERING FIXING SYSTEMS

VITRIFIED TILES, MOSAICS AND NATURAL STONE





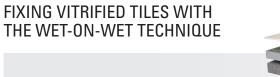
Together with nature we can build the future.

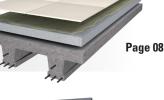


'Together with nature we can build the future'

VITRIFIED TILES AND NATURAL STONE FIXING SYSTEMS

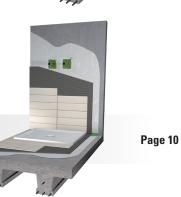








VITRIFIED TILES FIXING IN WET AREAS AND **SHOWERS**

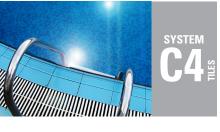




VITRIFIED TILES FIXING ON **TERRACES AND BALCONIES**



Page 12



VITRIFIED TILES AND **MOSAIC FIXING IN** SWIMMING POOL



Page 14



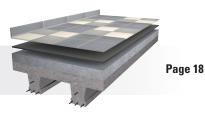
VITRIFIED TILES FIXING ON **EXTERNAL FACADES**



Page 16



VITRIFIED TILES FIXING IN AREAS WITH HEAVY TRAFFIC





FIXING OF THIN AND LARGE SIZE VITRIFIED TILES





FIXING NATURAL INDIAN STONE WITH THE WET-ON-WET TECHNIQUE





NATURAL STONE FIXING ON EXTERNAL FACADES





FIXING OF ITALIAN STONE ON FLOOR



Page 26

STANDARDS, REGULATIONS, CERTIFICATES AND LABELLING

EUROPEAN STANDARDS AND REGULATIONS

EN standards are technical specifications adopted by CEN, the European Committee for Standardisation, which defines the requirements of a product. When harmonised, they are used for compliance assessment, classification and compulsory CE marking of products.

EU regulations are binding legal documents that must be applied in all parts, throughout the European Union, to apply these standards.

CE directives are legal documents that establish a goal that all EU countries have to implement and put into practice.

Examples of harmonised standards mentioned in the guide are:

EN 12004: adhesive for ceramic tiles

EN 13813: substrate preparation coats

EN 14891: waterproofing products applied as liquids, for use under ceramic tiles applied using adhesives

CLASSIFICATION OF TILE ADHESIVES UNDER EN 12004

CEMENT-BASED ADHESIVES (C)				
Basic class	Complementary/additional characteristics			
C1	E: EXTENDED OPEN TIME			
C2	T: REDUCED VERTICAL SLIP			
C2F	S1: DEFORMABILITY S2: HIGH DEFORMATION			
DISPERSED ADHESIVES (D)				
Basic class	Complementary/additional characteristics			
D1	E: EXTENDED OPEN TIME			
D2	T: REDUCED VERTICAL SLIP			
REACT	IVE ADHESIVES (R)			
Basic class	Complementary/additional characteristics			
R1				
R2	T: REDUCED VERTICAL SLIP			

Examples of NON harmonised standards mentioned in the guide:

EN 13888: grouts for ceramic tiles

EN 14293: adhesives for fixing of solid wood flooring to the ground

EN 14259: adhesives for resilient material and textile coverings

CLASSIFICATION OF CERAMIC GROUTS UNDER EN 13888

CEMENT-BASED GROUTS						
Туре	Class	Complementary/additional characteristics				
	1 (normal)	F: RAPID				
CG	2 (improved)	F: RAPID W: REDUCED WATER ABSORPTION A: HIGH RESISTANCE TO ABRASION				
	REACTIVE GROUTS					
Туре	Class	Complementary/additional characteristics				
RG						

NATIONAL STANDARDS AND REGULATIONS

Every country has national technical standards, technical rules, codes of practice, regulations, etc... that need to be assessed before using the options proposed.

Examples of this may be:

BSI for Great Britain, DIN for Germany, CSTB for France, UNI for Italy, IS for India, ANSI for the USA, etc...

GEV-EMICODE CERTIFICATION

The EMICODE[®] classification system issued by GEV (the German Association controlling volatile organic compound emissions) defines products according to the quantity of VOC emitted.



STANDARDS AND REGULATIONS IN USE IN INDIA

The **IS 15477** standard has been adopted by the Bureau of Indian Standards, after the final approval of the draft issued by the plastic materials division commission on behalf of the Petroleum, Coal, and Related Products Department.

The standard methods of measuring the characteristics are an essential addition to the technical specifications of the tile adhesives.

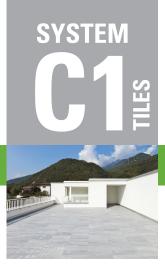
The **IS 15477** standard proposes to determine these methods according to the characteristics of the tiles and the environmental conditions.

TYPE 1 Suitability for fixing tiles with > 3% porosity**TYPE 2** suitability for fixing tiles with < 3% porosity</th>

CLASSIFICATION OF TILE ADHESIVES UNDER IS 15477

KEY CHARACTERISTICS	TYPE 1	TYPE 2
Tensile adhesion (minimum)		
Dry condition	750 N	
Humid condition	450 N	
Shear adhesion (minimum)		
Dry condition after 24 hrs	2.50 KN	4.00 KN
Dry condition after 14 days	8.00 KN	10.00 KN
Adhesion after heat ageing	4.00 KN	5.00 KN
Humid condition	4.00 KN	5.00 KN

For tropical countries such as India, the standard temperature and the relative humidity are +27 ± 2 °C and 65 ± 5%.



FIXING VITRIFIED TILES WITH THE WET-ON-WET TECHNIQUE

- Guarantees safe fixing and certified high strength performances
- No stains on the surface
- Avoids moisture rising on the walls
- High dimensional stability and durability
- Fast completion of work

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• System with very low VOC emissions, improves the quality of air and increases the level of health protection for people

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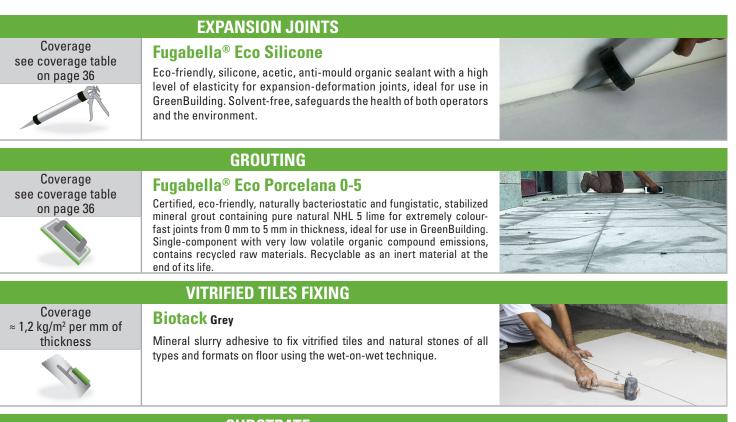


EC 1ª









Preparation of the screed \approx 1,2 kg/m² per cm of thickness

SUBSTRATE

Biocem + Quartzo

Mineral binder for screeds to fix vitrified tiles and natural stones using wet-on-wet technique. Dosage with Kerakoll Quartzo 1:8 by volume.

SUBSTRATE PREPARATION

If the thickness is < 40 mm use a slurry key prepared using P5 Eco, water and Biocem in the proportion of 1:1:4.



VITRIFIED TILES FIXING IN WET AREAS AND SHOWERS

- Guarantees the water protection of adjacent rooms
- Certified fixing system
- High level of chemical stability in alkaline areas
- System with very low VOC emissions, improves the quality of air and increases the level of health protection for people





7

EXPANSION JOINTS

Fugabella® Eco Silicone

Eco-friendly, silicone, acetic, anti-mould organic sealant with a high level of elasticity for expansion-deformation joints, ideal for use in GreenBuilding. Solvent-free, safeguards the health of both operators and the environment.



Coverage see coverage table on page 36

Coverage

see coverage table

on page 36

GROUTING

Fugalite[®] Eco

Certified, eco-friendly, vitrified, high-slide, easy-to-clean grout and adhesive, bacteriostatic and fungistatic, water and stain proof for joints of between 0 and 20 mm with a high level of chemical and mechanical resistance, guarantees the continuity of ceramic surfaces, ideal for use in GreenBuilding. With very low volatile organic compound emissions.



Coverage ≈ 1,2 kg/m² per mm of thickness

2nd COAT - Coverage

 \approx 1,15 kg/m² per mm of

thickness

Biofix Grey

Adhesive for fixing ceramic tiles indoor and outdoor areas and vitrified tiles only indoor.



WATERPROOFING

VITRIFIED TILES FIXING

Aquastop Nanoflex®

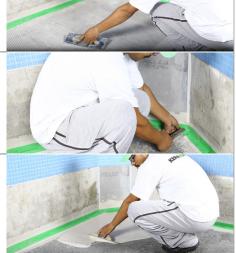
Certified, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane for the flexible waterproofing with high levels of adhesion and durability of substrates before fixing with adhesives, ideal for use in GreenBuilding.

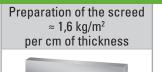
Waterproofing of joints Aquastop 120

Flexible NBR waterproof joint for perimeter and fractionizing joints in waterproofing systems. For use under ceramic and vitrified tiles and natural stone. Bonds directly using Aquastop Nanoflex®.

Aquastop Nanoflex®

Certified, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane for the flexible waterproofing with high levels of adhesion and durability of substrates before fixing with adhesives, ideal for use in GreenBuilding.





1st COAT - Coverage ≈ 1,15 kg/m² per mm of

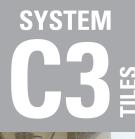
thickness

SUBSTRATE

Biocem + Quartzo

Mineral binder for screeds to fix vitrified tiles and natural stones using wet-on-wet technique. Dosage with Kerakoll Quartzo 1:6 by volume.







VITRIFIED TILES FIXING ON TERRACES AND BALCONIES

- Guarantees safe fixing in high temperature and difficult humidity conditions
- Ensures protection of the underlying structure
- Guarantees excellent resistance to changes in temperature
- Total water resistance
- Fast completion of work

4

• System with very low VOC emissions, improves the quality of air and increases the level of health protection for people

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12

EXPANSION JOINTS

Fugabella® Eco Silicone

Eco-friendly, silicone, acetic, anti-mould organic sealant with a high level of elasticity for expansion-deformation joints, ideal for use in GreenBuilding. Solvent-free, safeguards the health of both operators and the environment.



Coverage see coverage table on page 36

Coverage

see coverage table

on page 36

GROUTING

Fugalite® Zero

Certified eco-friendly, easy-to-work, hypoallergenic, water-based grout, bacteriostatic and fungistatic, water and stain proof, for joints of between 0 and 10 mm with a high level of colour fastness and good chemical resistance, ideal for use in GreenBuilding.



Coverage ≈ 1,2 kg/m² per mm of thickness

2nd COAT - Coverage

 \approx 1,15 kg/m² per mm of

thickness

Bioflex Grey

Flexible mineral adhesive to fix vitrified tiles and Natural stones on floor and wall.



WATERPROOFING

VITRIFIED TILES FIXING

Aquastop Nanoflex®

Certified, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane for the flexible waterproofing with high levels of adhesion and durability of substrates before fixing with adhesives, ideal for use in GreenBuilding.

Reinforcing mesh

Aquastop AR1

Special reinforcing mesh made of alkali-resistant glass fibre to strengthen the two-component, eco-friendly Aquastop Nanoflex $^{\circledast}$ membrane.

Waterproofing of joints

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1st COAT - Coverage ≈ 1,15 kg/m² per mm of

thickness

Aquastop 120

Flexible NBR waterproof joint for perimeter and fractionizing joints in waterproofing systems. For use under ceramic and vitrified tiles and natural stone. Bonds directly using Aquastop Nanoflex®.

Aquastop Nanoflex®

Certified, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane for the flexible waterproofing with high levels of adhesion and durability of substrates before fixing with adhesives, ideal for use in GreenBuilding.

Preparation of the screed ≈ 16 kg/m² per cm of thickness

SUBSTRATE

Biocem + Quartzo



Mineral binder for screeds to fix vitrified tiles and natural stones using wet-on-wet technique. Dosage with Kerakoll Quartzo 1:6 by volume.

SYSTEM í

VITRIFIED TILES AND MOSAIC FIXING IN SWIMMING POOL

- Ensures high performance even in continuous water • immersion
- High resistance to chlorate water
- Mantains the hygiene of surfaces

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System with very low VOC emissions, improves the quality of • air and increases the level of health protection for people

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	GROUTING	
Coverage see coverage table on page 28	Fugalite® Zero Certified eco-friendly, easy-to-work, hypoallergenic, water-based grout, bacteriostatic and fungistatic, water and stain proof, for joints of between 0 and 10 mm with a high level of colour fastness and good chemical resistance, ideal for use in GreenBuilding. With very low volatile organic compound emissions and reduced solvent content, safeguards the health of operators.	
۷	ITRIFIED TILES AND MOSAIC FIXING	
Coverage ≈ 1,2 kg/m² per mm of thickness	Bioflex white Flexible mineral adhesive to fix vitrified tiles and Natural stones on floor and wall.	
	WATERPROOFING	
2 nd COAT - Coverage ≈ 1,15 kg/m ² per mm of thickness	Aquastop Nanoflex [®] Certified, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane for the flexible waterproofing with high levels of adhesion and durability of substrates before fixing with adhesives, ideal for use in GreenBuilding. Single-component with low CO ₂ emissions and very low volatile organic compound emissions. Recyclable as an inert material at the end of its life.	and a second
Reinforcing mesh waterproofing of joints	Aquastop AR1 Special reinforcing mesh made of alkali-resistant glass fibre to strengthen the two-component, eco-friendly Aquastop Nanoflex® membrane.	
111	Aquastop 120 Flexible NBR waterproof joint for perimeter and fractionizing joints in waterproofing systems. For use under ceramic and vitrified tiles and natural stone. Bonds directly using Aquastop Nanoflex®.	
1 st COAT - Coverage ≈ 1,15 kg/m² per mm of thickness	Aquastop Nanoflex [®] Certified, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane for the flexible waterproofing with high levels of	
11	adhesion and durability of substrates before fixing with adhesives, ideal for use in GreenBuilding. Single-component with low CO ₂ emissions and very low volatile organic compound emissions. Recyclable as an inert material at the end of its life.	
≈ 10 m (joint 5x5 mm) with 1 290 ml cartridge	Nanosil Eco Eco-friendly neutral silane rigid sealant for waterproof sealing of	
	hydraulic and electric systems, through elements and construction elements in pools and in AquaExpert systems, ideal for Greenbuilding.	
	WALL LEVELLING	
≈ 17,5 kg/m² per.cm.of.thickness	Kerabuild® Eco R4 Tixo	

Eco-friendly, mineral mortar for the guaranteed, long-lasting restoration and consolidation of concrete structures, ideal for use in GreenBuilding. Recyclable as an inert material at the end of its life.



Preparation of the screed ≈ 2,5 kg/m² per cm of thickness

SUBSTRATE

Biocem + Quartzo

Mineral binder for screeds to fix vitrified tiles and natural stones using wet-on-wet technique. Dosage with Kerakoll Quartzo 1:4 by volume.





VITRIFIED TILES FIXING ON

EXTERNAL FACADES

- Guarantees safe fixing in difficult climatic and humidity conditions
- Guarantees excellent resistance to changes in temperature

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• System with very low VOC emissions, improves the quality of air and increases the level of health protection for people

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If necessary, prepare a slurry key for the plaster/render using 1 part of P5, 1 part of water and 3 parts of cement. Mix P5 additive with plaster/render to increase the cohesion. Check with Kerakoll India Helpline the fixing techniques to use according to dimensions, height and format of the slabs.

SYSTEM CC6



VITRIFIED TILES FIXING IN AREAS WITH HEAVY TRAFFIC

- Guarantees safe fixing in areas subject to high levels of traffic
- Ensures high resistance to static and dynamic loads

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- Fast completion of work
- System with very low VOC emissions, improves the quality of air and increases the level of health protection for people







Coverage

see coverage table

on page 36

EXPANSION JOINTS

Fugabella® Eco PU 40

Eco-friendly, polyurethane, non-sag organic sealant with a high level of resistance to abrasion for fractionizing joints, ideal for use in GreenBuilding. Safeguards the environment.



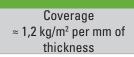
GROUTING

VITRIFIED TILES FIXING

Fugalite® Eco

Certified, eco-friendly, vitrified, high-slide, easy-to-clean grout and adhesive, bacteriostatic and fungistatic, water and stain proof for joints of between 0 and 20 mm with a high level of chemical and mechanical resistance, guarantees the continuity of ceramic surfaces, ideal for use in GreenBuilding. With very low volatile organic compound emissions.





Bioflex Grey

Flexible mineral adhesive to fix vitrified tiles and Natural stones on floor and wall.



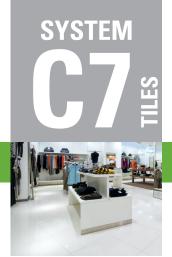
Preparation of the screed $\approx 2,5 \text{ kg/m}^2$ per cm of thickness

SUBSTRATE

Biocem + Quartzo

Mineral binder for screeds to fix vitrified tiles and natural stones using wet-on-wet technique. Dosage with Kerakoll Quartzo 1:4 by volume.





FIXING OF THIN AND LARGE SIZE

VITRIFIED TILES

- Guarantees safe fixing of thin tiles
- Ensures high resistance to compression
- Suitable for renovation work

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- Fast completion of work
- System with very low VOC emissions, improves the quality of air and increases the level of health protection for people

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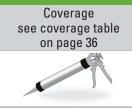
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EC 1º







Coverage

see coverage table

on page 36

EXPANSION JOINTS

Fugabella® Eco Silicone

Eco-friendly, silicone, acetic, anti-mould organic sealant with a high level of elasticity for expansion-deformation joints, ideal for use in GreenBuilding. Solvent-free, safeguards the health of both operators and the environment.



GROUTING

Fugalite® Eco

Certified, eco-friendly, vitrified, high-slide, easy-to-clean grout and adhesive, bacteriostatic and fungistatic, water and stain proof for joints of between 0 and 20 mm with a high level of chemical and mechanical resistance, guarantees the continuity of ceramic surfaces, ideal for use in GreenBuilding. With very low volatile organic compound emissions.



Coverage ≈ 1,2 kg/m² per mm of thickness

VITRIFIED TILES FIXING

H40[®] No Limits Grey

Highly flexible, multi-purpose, structural adhesive to fix fully vitrified tiles and natural stone of all types and size.



Preparation of the screed ≈ 2,5 kg/m² per cm of thickness

SUBSTRATE

Biocem + Quartzo

Mineral binder for screeds to fix vitrified tiles and natural stones using wet-on-wet technique. Dosage with Kerakoll Quartzo 1:4 by volume.



SYSTEM



FIXING NATURAL INDIAN STONE WITH THE WET-ON-WET TECHNIQUE

- Guarantees safe fixing and certified mechanical resistance
- No more efflorescence
- Avoids moisture rising on the walls
- High degree of workability and maximum adhesion

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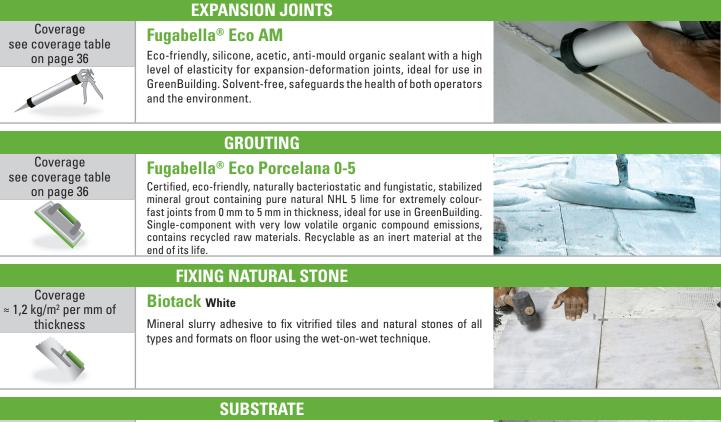
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• System with very low VOC emissions, improves the quality of air and increases the level of health protection for people









Preparation of the screed ≈ 1,6 kg/m² per cm of thickness

Biocem + Quartzo

Mineral binder for screeds to fix vitrified tiles and natural stones using wet-on-wet technique. Dosage with Kerakoll Quartzo 1:6 by volume.

SUBSTRATE PREPARATION

If the thickness is < 40 mm use a slurry key composed of P5, water and Biocem in the proportions of 1:1:4.

SYSTEM CGG



NATURAL STONE FIXING ON

EXTERNAL FACADES

- Guarantees a secure fixing in difficult environmental conditions
- Guarantees excellent resistance to changes in temperature
- Guarantees the fixing of large formats and high thicknesses







SUBSTRATE PREPARATION

If necessary, prepare a slurry key for the plaster/render using 1 part of P5, 1 part of water and 3 parts of cement. Mix P5 additive with plaster/render to increase the cohesion. Check with Kerakoll India Helpline the fixing techniques to use according to dimensions, height and format of the slabs.

system



FIXING OF ITALIAN STONE

ON FLOOR

- Guarantees a fast and secure fixing
- Guarantees uniform mechanical properties
- Ensures the evenness of the covering
- No more damp rising and stains on the surface

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 $\begin{array}{l} \mbox{Preparation of the screed} \\ \approx 2,5 \ \mbox{kg/m}^2 \\ \mbox{per cm of thickness} \end{array}$

20B21KA

Biocem + Quartzo

Mineral binder for screeds to fix vitrified tiles and natural stones using wet-on-wet technique. Dosage with Kerakoll Quartzo 1:4 by volume.





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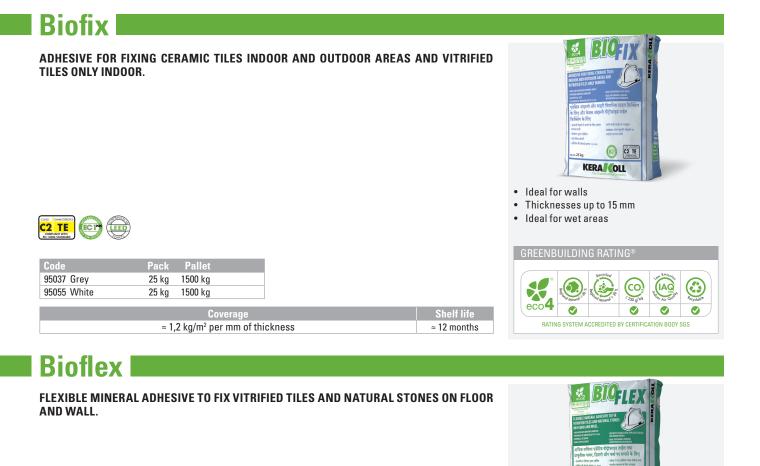
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RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS







Code	Pack Pallet	
95038 Grey	25 kg 1500 kg	
95039 White	25 kg 1500 kg	
	Coverage	Shelf life
	Grey ≈ 1,3 kg/m² per mm of thickness	12 months
	White ≈ 1,2 kg/m² per mm of thickness	≈ 12 months

H40[®] No Limits

HIGHLY FLEXIBLE, MULTI-PURPOSE, STRUCTURAL ADHESIVE TO FIX FULLY VITRIFIED TILES AND NATURAL STONE OF ALL TYPES AND SIZE.



Code	Pack	Pallet
95040 Grey	25 kg	1500 kg
95041 White	25 kg	1500 kg

Coverage	Shelf life	
Grey \approx 1,3 kg/m ² per mm of thickness	12 months	
White ≈ 1,2 kg/m² per mm of thickness	≈ 12 months	



RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

Real

• Thicknesses up to 15 mm • For internal and external use

• For balconies and terraces

GREENBUILDING RATING®

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C2 TE KERA OLL

Atecycloble

IAG Ø

• Long open time

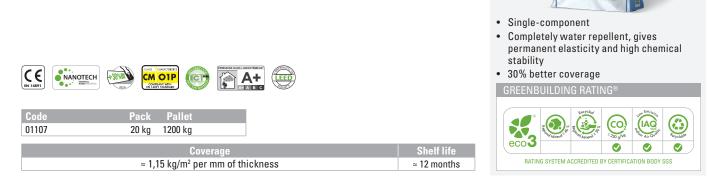
- No sag
- Water resistant

GREENB	UILDIN	G RATII	NG®		
		Recycled	~	Sal Emission	
	Read Barring Co	R Alingra S	(CO ₂ *200 g/V4	Tage Air Quality	Resyclable
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RATIN	IG SYSTEM A	CCREDITED E	BY CERTIFIC	ATION BODY :	SGS

Aquastop Nanoflex®

Certified, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane for the flexible waterproofing with high levels of adhesion and durability of substrates before laying with adhesives, ideal for use in GreenBuilding.

Aquastop Nanoflex[®] develops a smooth, fluid mixture that can be adjusted by varying the amount of water in order to obtain optimal workability for the particular site conditions, guaranteeing maximum adhesion of the bonded system.



Aquastop AR1

Special reinforcing mesh made of alkali-resistant glass fibre to strengthen the eco-friendly Aquastop Nanoflex® membrane.



AQUASTOP

KERA COLL

Nanoflex

- Superior mesh with Aquastop Nanoflex®
- Without memory effect



Aquastop 120

Flexible NBR waterproof joint for perimeter and fractionizing joints in waterproofing systems. For use under ceramic and vitrified tiles and natural stone. Bonds directly using Aquastop Nanoflex[®].



- Ideal for bonding with eco-friendly Aquastop Nanoflex® Eco membrane
- Guaranteed waterproofing of all types of non-structural fractionizing and connection joints

Code	Pack	Code	Pack
05948 Tape 120 width	50 m	05949 Flange 120x120	20 pcs.
05946 Internal corner	20 pcs.	05950 Flange 350x350	10 pcs.
05944 External corner	20 pcs.		

Nanosil Eco

Eco-friendly rigid neutral silane sealant for waterproof sealing of hydraulic and electric systems, through elements and construction elements in pools and in AquaExpert systems, ideal for Greenbuilding.

Nanosil Eco develops a high level of adhesion and permanent elasticity on absorbent and non-absorbent surfaces, guaranteeing the waterproofing of system passages even in the most critical space situations.



- Specific for pools with aggressive water
 - High adhesion on all materials without using primer

				- 15	GREENB	UILDIN	G RAII	NG®		
Code 05970	Pack Pallet 12x290 ml 936 pcs.					Tool Emission	At Caler Bosted	SLV Strong 15 9	Ext Conformation	And the second
	Coverage		Shelf life		ecoJ			0	Ø	
	≈ 10 m (joint 5x5 mm) with 1 ca	rtridge (290 ml)	≈ 18 months		RATIN	G SYSTEM A	CCREDITED	BY CERTIFICA	ATION BODY	SGS

Kerabuild[®] Eco R4 Tixo

Eco-friendly, mineral mortar for the guaranteed, long-lasting restoration and consolidation of concrete structures, ideal for use in GreenBuilding.

Kerabuild® Eco R4 Tixo is a polymer-modified, thixotropic, fibre-reinforced, with compensated shrinkage and Zero Crack Risk mortar, that complies with the performance requirements of EN 1504-3 for class R4 structural mortars of type CC and PCC.



· Excellent workability and ease-of-application



P5 Eco

Eco-friendly, water-based elastomeric latex for use as a high-performance additive in cement-based mortars and fine-grain concretes, ideal for use in GreenBuilding.

P5 Eco increases substrate adhesion, reduces water absorption and enhances the level of compactness and flexibility. For slurry keys used in additional casting layers and in restoration work. Internal, external.

CANAL CONTRACTOR
(LEED)
POINTS

Code	Pack	Pallet	
02361	25 kg	600 kg	
02362	5 kg	450 kg	

01001		
	Dosages	Shelf life
	concrete $\approx 20 - 40\%$ of the weight of cement	
	mortar $\approx 20-40\%$ of the weight of cement	≈ 12 months
	adhesive slurry ≈ 1 P5 Eco : 1 water : 4 cement	



• As an additive for mortars, fine and standard-grain concrete and adhesive slurries

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Fugabella® Eco Porcelana 0-5

Certified, eco-friendly, naturally bacteriostatic and fungistatic, stabilized mineral grout containing pure natural NHL 5 lime for extremely colour-fast joints from 0 mm to 5 mm in thickness, ideal for use in GreenBuilding.

Fugabella® Eco Porcelana 0-5 develops an extra-fine, micro grain finish with scratch-proof surface hardness which enhances the reflected light effect ensuring it blends seamlessly with the design of ceramic tiles, glass mosaic and natural stone.



- Three collections of 28 colours: Classic, Design and Colors
- Ideal for decorating corrected slab

Shelf life

≈ 12 months



Fugalite[®] Eco

see pages 34-37 Codes and Colours

Pack

Fugabella TECHNOLOGY

Certified, eco-friendly, vitrified, high-slide, easy-to-clean grout and adhesive, bacteriostatic and fungistatic, water and stain proof for joints of between 0 and 20 mm with a high level of chemical and mechanical resistance, guarantees the continuity of ceramic surfaces, ideal for use in GreenBuilding.

Coverage

see coverage table on page 36

Fugalite[®] Eco is a liquid ceramic for the smooth, unbroken grouting of all ceramic and glass mosaic coverings. Available in 3 colour collections giving a total of 28 different colours and allowing unlimited creative potential and original combinations as well as a striking finish.





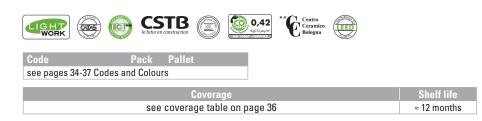
- Vitrified, guarantees the lasting performance of ceramics and a totally even colour
- Ideal to bond and grout glass mosaic

GREENBOILDING RATING®

Fugalite[®] Zero

Certified eco-friendly, easy-to-work, hypoallergenic, water-based grout, bacteriostatic and fungistatic, water and stain proof, for joints of between 0 and 10 mm with a high level of colour fastness and good chemical resistance, ideal for use in GreenBuilding. With very low volatile organic compound emissions and reduced solvent content, safeguards the health of operators.

Fugalite® Zero means 100% safe and hygienic joints when grouting all ceramic and glass mosaic coverings. Available in 3 collections: Classic, Design and Colors in a total of 28 different colours, allowing unlimited creative potential and original combinations as well as a striking finish.





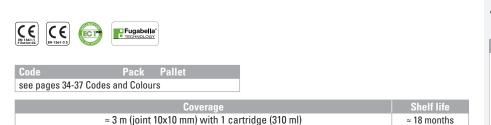
 Suitable for vitrified tiles, ceramic tiles, large formats, low thickness slabs, glass mosaic, marble and natural stone



Fugabella® Eco Silicone

Eco-friendly, silicone, acetic, anti-mould organic sealant with a high level of elasticity for expansion-deformation joints, ideal for use in GreenBuilding.

Fugabella® Eco Silicone develops a high degree of adhesion to non-absorbent surfaces, guaranteeing the integrity and watertightness of ceramic coverings subject to deformation.



Fugabella[®] Eco AM

Eco-friendly, silicone, neutral, anti-mould organic sealant with a high level of elasticity for expansion-deformation joints, ideal for use in GreenBuilding.

Fugabella® Eco AM develops neutral reticulation with no unstable, migrant components guaranteeing a perfect seal with no streaking or stains on the delicate surfaces of marble and natural stone.



- · Suitable on cement-based and porous material substrates
- Ideal for marble and natural stone





	GREENB	UILDIN	g rati	NG®	
	eco3	Tager Air Oud	At Gaser Bound	SLV Stone 15 0	Low Coolog
Shelf life					
≈ 18 months	RATIN	G SYSTEM A	CCREDITED	BY CERTIFIC	ATION I

nelf life

≈ 12 months

eco4

Code Pack Pallet see pages 34-37 Codes and Colours

Coverage \approx 3 m (joint 10x10 mm) with 1 cartridge (310 ml)

Fugabella[®] Eco PU 40

Eco-friendly, polyurethane, thixotropic organic sealant with a high level of resistance to abrasion for expansion-deformation joints, ideal for use in GreenBuilding.

Fugabella® Eco PU 40 develops high surface hardness, guaranteeing the watertightness of seals under the most extreme levels of thermal and mechanical stress in industrial and commercial flooring subject to heavy traffic. High elastic modulus.



Code	Pack	Pallet	
50025 03 - Pearl Grey	12x310 ml	936 pcs.	
50023 04 - Iron Grey	12x310 ml	936 pcs.	
50019 05 - Anthracite	12x310 ml	936 pcs.	
50021 08 - Bahama Beige	12x310 ml	936 pcs.	
		•	

 \approx 3 m (joint 10x10 mm) with 1 cartridge (310 ml)



- · Walls and floors, for internal and external use, suitable for painting
- Suitable for vitrified and ceramic tiles

GREENB	UILDIN	g rati	NG®		
eco	The Air Over	Andrew Bother	SLV Strand 15 0 P		Yaquin Cote
RATIN	G SYSTEM A	CCREDITED	BY CERTIFIC	ATION BODY :	SGS



- Available in the 28-colour Fugabella® Eco range + Transparent
- Suitable to seal vitrified and ceramic tiles

Ø

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

Ø

Code		Pack	Pallet
	Fugabella® Eco		
	01 - White	1 kg	
	01 - White	4x5 kg	480 kg
	02 - Light Grey	1 kg	
	02 - Light Grey	4x5 kg	480 kg
	03 - Pearl Grey	1 kg	
	03 - Pearl Grey	4x5 kg	480 kg
95001	04 - Iron Grey	1 kg	
03889	04 - Iron Grey	4x5 kg	480 kg
95000	05 - Anthracite	1 kg	
03884	05 - Anthracite	4x5 kg	480 kg
95006	06 - Black	1 kg	
03917	06 - Black	4x5 kg	480 kg
95002	07 - Jasmin	1 kg	
03891	07 - Jasmin	4x5 kg	480 kg
95007	08 - Bahama Beige	1 kg	
)3885	08 - Bahama Beige	4x5 kg	480 kg
95008	09 - Caramel	1 kg	
03886	09 - Caramel	4x5 kg	480 kg
95009	10 - Terracotta	1 kg	
03933	10 - Terracotta	4x5 kg	480 kg
95010	11 - Brown	1 kg	
03909	11 - Brown	4x5 kg	480 kg
95011	12 - Walnut	1 kg	
03919	12 - Walnut	4x5 kg	480 kg
95012	51 - Silver	1 kg	
)3929	51 - Silver	4x5 kg	480 kg
95013	50 - Pergamon	1 kg	
)3925	50 - Pergamon	4x5 kg	480 kg
95014	46 - Ivory	1 kg	
)3894	46 - Ivory	4x5 kg	480 kg
95015	45 - Limestone	1 kg	
03906	45 - Limestone	4x5 kg	480 kg
95016	52 - Dove Grey	1 kg	
	52 - Dove Grey	4x5 kg	480 kg
	44 - Cement Grey	1 kg	
	44 - Cement Grey	4x5 kg	480 kg
	48 - Coffee	1 kg	
	48 - Coffee	4x5 kg	480 kg
	38 - Husky	1 kg	
	38 - Husky	4x5 kg	480 kg
	47 - Mediterranean	1 kg	
	47 - Mediterranean	4x5 kg	480 kg
	15 - Ocean	1 kg	
	15 - Ocean	4x5 kg	480 kg
	41 - Eucalyptus	4x5 kg	roo Ay
	41 - Eucalyptus	4x5 kg	480 kg
	49 - Moss	4x5 kg	700 KY
	49 - Moss	4x5 kg	480 kg
			-ioo ky
	20 - Magnolia	1 kg	100 100
	20 - Magnolia	4x5 kg	480 kg
	27 - Sunset	1 kg	400 1
	27 - Sunset	4x5 kg	480 kg
	21 - Red	1 kg	
	21 - Red	4x5 kg	480 kg
35028	23 - Yellow	1 kg	
	23 - Yellow		

Code			Pack	Pallet
		Fugalite® E	co	
05025	01 - White	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05103	02 - Light Grey	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
04993	03 - Pearl Grey	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05104	04 - Iron Grey	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
04995	05 - Anthracite	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05105	06 - Black	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
04730	07 - Jasmin	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
04731	08 - Bahama Beige	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05106	09 - Caramel	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05107	10 - Terracotta	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05108	11 - Brown	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05109	12 - Walnut	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05110	51 - Silver	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05111	50 - Pergamon	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05112	46 - Ivory	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05113	45 - Limestone	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05114	52 - Dove Grey	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05115	44 - Cement Grey	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05116	48 - Coffee	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05117	38 - Husky	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05118	47 - Mediterranean	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05119	15 - Ocean	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05120	41 - Eucalyptus	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05121	49 - Moss	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05122	20 - Magnolia	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05123	27 - Sunset	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05124	21 - Red	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05125	23 - Yellow	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
05319	Extra-fine white	Part A + B (monopack)	1x2,82 + 1x0,18 kg	240 kg
		Fugalite [®] Zer	0	
07138	01 - White	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
07142	03 - Pearl Grey	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
07144	04 - Iron Grey	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
07148	05 - Anthracite	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
08387	06 - Black	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
07146	07 - Jasmin	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
08348	08 - Bahama Beige	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
08856	12 - Walnut	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
08989	51 - Silver	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
08987	46 - Ivory	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
07150	45 - Limestone	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
08394	48 - Coffee	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg
08988	15 - Ocean	Part A + B (monopack)	1x2,4 + 1x1,2 kg	316,8 kg

Code				Pack	Pallet
		Fugabella®	Eco Silicone		
03618	Transparent			12x310 ml	864 pcs.
03571	01 - White			12x310 ml	864 pcs.
03573	02 - Light Grey			12x310 ml	864 pcs.
03170	03 - Pearl Grey			12x310 ml	864 pcs.
03175	04 - Iron Grey			12x310 ml	864 pcs.
03177	05 - Anthracite			12x310 ml	864 pcs.
03575	06 - Black			12x310 ml	864 pcs.
03563	07 - Jasmin			12x310 ml	864 pcs.
03180	08 - Bahama Beige			12x310 ml	864 pcs.
03561	09 - Caramel			12x310 ml	864 pcs.
03569	10 - Terracotta			12x310 ml	864 pcs.
03567	11 - Brown			12x310 ml	864 pcs.
03185	12 - Walnut			12x310 ml	864 pcs.
03595	51 - Silver			6x310 ml	432 pcs.
03603	50 - Pergamon			6x310 ml	432 pcs.
03587	46 - Ivory			6x310 ml	432 pcs.
03179	45 - Limestone			6x310 ml	432 pcs.
03577	52 - Dove Grey			6x310 ml	432 pcs.
03178	44 - Cement Grey			6x310 ml	432 pcs.
03583	48 - Coffee			6x310 ml	432 pcs.
03579	38 - Husky			6x310 ml	432 pcs.
03601	47 - Mediterranear	1		6x310 ml	432 pcs.
03593	15 - Ocean			6x310 ml	432 pcs.
03589	41 - Eucalyptus			6x310 ml	432 pcs.
03591	49 - Moss			6x310 ml	432 pcs.
03581	20 - Magnolia			6x310 ml	432 pcs.
03605	27 - Sunset			6x310 ml	432 pcs.
03585	21 - Red			6x310 ml	432 pcs.
03597	23 - Yellow			6x310 ml	432 pcs.
		Fugabell	a® Eco AM		
03607	01 - White			12x310 ml	936 pcs.
03609	03 - Pearl Grey			12x310 ml	936 pcs.
03611	04 - Iron Grey			12x310 ml	936 pcs.
03613	05 - Anthracite			12x310 ml	936 pcs.
03615	07 - Jasmin			12x310 ml	936 pcs.
03617	08 - Bahama Beige			12x310 ml	936 pcs.

COVERAGE TABLES

MINERAL GROUTS

grammes/m ² - joint width 1 mm	
---	--

	Format	Thickness	FUGABELLA® ECO PORCELANA 0-5
Mosaic	25x25 mm	3 mm	≈ 430
	50x50 mm	4 mm	≈ 295
	100x100 mm	6 mm	≈ 220
	100x150 mm	6 mm	≈ 185
NI	200x100 mm	6 mm	≈ 165
Natural stone	300x300 mm	7 mm	≈ 9 0
Glazed	300x450 mm	9 mm	≈ 95
tiles	300x600 mm	9 mm	≈ 85
Ceramic	600x600 mm	10 mm	≈ 65
tiles	1000x1000 mm	12 mm	≈ 45
Vitrified tiles	1200x600 mm	16 mm	≈ 75
1100	1200x2400 mm	16 mm	~ 40
	1800x900 mm	25 mm	~ 80
	1800x1200 mm	25 mm	≈ 65

ORGANIC MINERAL GROUTS

			grammes/m ² - joint width 1 mm		
	Format	Thickness	FUGALITE® ECO	FUGALITE® ZERO	
Mosaic	25x25 mm	3 mm	≈ 395	≈ 420	
	50x50 mm	4 mm	≈ 270	≈ 280	
	100x100 mm	6 mm	≈ 205	≈ 215	
	100x150 mm	6 mm	≈ 170	≈ 180	
	200x100 mm	6 mm	≈ 155	≈ 160	
Natural stone	300x300 mm	7 mm	≈ 80	≈ 85	
Glazed	300x450 mm	9 mm	≈ 85	≈ 90	
tiles	300x600 mm	9 mm	≈ 80	≈ 80	
Ceramic	600x600 mm	10 mm	≈ 60	≈ 60	
tiles	1000x1000 mm	12 mm	≈ 40	≈ 45	
Vitrified tiles	1200x600 mm	16 mm	≈ 70	≈ 70	
1163	1200x2400 mm	16 mm	≈ 35	≈ 35	
	1800x900 mm	25 mm	≈ 70	≈ 75	
	1800x1200 mm	25 mm	≈ 60	≈ 60	

ORGANIC SEALANTS

UnuAnnu	UNICALITY SEALANTS							
Linear ı	Linear metres of joints sealable with one 310 ml cartridge of Fugabella® Eco Silicone, Fugabella® Eco PU 40 or Fugabella® Eco AM							
Depth	Width	6 mm	8 mm	10 mm	15 mm	20 mm		
5 mm		≈ 10,4 m	≈ 8 m	≈ 6,2 m	-	-		
7 mm		_	≈ 5,6 m	≈ 4,4 m	≈ 3 m	_		
10 mm		_	_	≈ 3 m	≈ 2,1 m	≈ 1,6 m		
15 mm		_	_	_	≈ 1,4 m	≈ 1,1 m		
20 mm		_	_	_	≈ 1,1 m	≈ 0,8 m		

If an estimated coverage value has not been given, it means the joint width/depth ratio is outside the specified limits and the joint cannot be sealed.

COLOUR CHART FOR GROUTS AND SEALANTS 10

		Fugabella® Eco Porcelana 0-5	® Eco	Fugalite® Zero	Fugabella® Eco Silicone	Fugabella® Eco AM	Fugabella® Eco PU 40	Fugabella® Eco PU	Colour Fastness* GS _C (Daylight) - Fugabella® Eco	Colour Fastness* GS _C (Daylight) - Fugalite® Eco	Colour Fastness* GS _C (Daylight) - Fugalite® Zero	
		gabell	Fugalite® Eco	galite	gabell	gabell	gabell	gabell	Fugabella® Eco Standard	Fugalite® Eco Standard	Fugalite® Zero Standard	
	04.14// 5						Ĩ		EN ISO 105-A05	EN ISO 105-A05	EN ISO 105-A05	
Design Collection	01 White	•	•	•	•	•		•	5	1,5	3	-
	02 Light Grey	•	•	•	•				4,5	1	3	
	03 Pearl Grey	•	•	•	•	•	•	•	4,5	1	3	from 3.5 to 3 good colour fastness; for internal and external use from 2.5 to 1 limited colour fastness; for internal use
	04 Iron Grey	•	•	•	•	•	•		4,5	1,5	3	
	05 Anthracite	•	•	•	•	•	•		4	2	4	
	06 Black	•	•	•	•				3,5	2,5	4,5	
	07 Jasmin	•	•	•	•	•			4,5	1	3,5	
	08 Bahama Beige	•	•	•	•	•	•	•	4,5	1	4	
	09 Caramel	•	•		•				4,5	1,5	4,5	
	10 Terracotta	•	•		•				4,5	2	4	
	11 Brown	•	•		•				4	2,5	4,5	
	12 Walnut	•	•	•	•				4	2,5	4,5	
	51 Silver	•	•	•	•				4,5	1,5	3,5	
	50 Pergamon	•	•		•				4,5	1,5	3	
	46 Ivory	٠	•	•	•				4,5	1	3	
	45 Limestone	•	•	•	•				4,5	1	3,5	
	52 Dove Grey	•	•		•				4,5	1,5	4	
	44 Cement Grey	•	•		•				4,5	1	3,5	our fastn
	48 Coffee	•	•	•	•				3,5	2,5	4,5	from 5 to 4high colour fastness; for internal and external use from 3 5 to 3 good col
Colors Collection	38 Husky	•	•		•				3	1	3	
	47 Mediterranean	•	•		•				3	1	3	
	15 Ocean	•	•	•	•				3	1	3	
	41 Eucalyptus	•	•		•				5	1,5	3,5	
	49 Moss	•	•		•				5	2	4,5	
	20 Magnolia	٠	•		٠				4,5	1,5	3	
	27 Sunset	•	•		•				4,5	1,5	4,5	
	21 Red	•	•		•				4	4	5	
	23 Yellow	•	•		•				2	1	2	
	Extra-fine white		٠							1		Legend

* Samples were exposed for 500 hours to a light spectrum equivalent to natural sunlight at midday, at the height of the summer on the earth's surface in the northern hemisphere. Differences in clarity, saturation and hue as compared to the reference sample kept in the dark in standard conditions are measured. The resulting colour difference ΔE_r is used to calculate the grey scale intensity values for colour fastness (GS_c), expressed in a range from 5 (maximum fastness) to 1. Important: the human eye cannot distinguish colour differences in the 5 to 3 range.

This Technical Guide has been drafted on the basis of the best technical and practical knowledge of Kerakoll S.p.A.

It is, however, a set of guides and information of a general nature that do not consider the real situations of individual structures.

Kerakoll does not intervene directly in the building site conditions, the specific design of the project, and the execution of the work; the information and guidelines mentioned here do not commit Kerakoll in any way.

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TECHNICAL GUIDE FOR THE BUILDING SITE





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KERAKOLL Spa

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