

Bioflex®

Eco-friendly mineral adhesive with an extremely low chemical additive content for high performance bonding with no vertical slip and long open time, for porcelain tiles, ceramic tiles and natural stone. Ideal for use in GreenBuilding.



GREENBUILDING RATING®

Bioflex®

- Category: Inorganic mineral products
- Laying ceramic, porcelain tiles and natural stone

rating 4

Natural mineral content
Grey 63%
White 61%

Recycled mineral content
White 61%

CO₂/kg emission
Grey 246 g

Very low VOC emissions

Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

PRODUCT STRENGTHS

- WITH LOW VOC EMISSIONS**
 Bioflex® Zero only contains substances with very low chemical pollutant emission levels, to guarantee the best indoor air quality for tile layers during application and ensure the psychophysical well-being of the people living in the buildings.
- WITH ORGANIC SALTS**
 Bioflex® only contains active principles in the form of high purity organic salts (98%). Bioflex® with an extremely low chemical additive content improves the hydration of mineral cement and protects the adhesive from aggressive external agents.
- WITH EXTRA-PURE INERT MINERALS**
 Bioflex® only contains spherical quartz sand and extremely pure powder from the Kerakoll Carrara marble quarries, which give the adhesive an optimum rheology and very low water absorption levels.

ECO NOTES

- Formulated with locally-sourced minerals meaning lower greenhouse gas emission during transportation
- The white version contains recycled minerals thereby reducing the damage to the environment caused by extracting primary raw materials
- Single-component; avoiding the use of plastic cans reduces CO₂ emissions and the need to dispose of special waste

AREAS OF USE

Use

Substrates:

- Cement-based screeds and mortars	- Cellular concrete, for internal use	- To overlay existing floors
- Anhydrite screeds	- Plasterboard	- Fibro-cement slabs
- Cement-based and gypsum renders/plasters	- Heated floors	
	- Waterproofing products	

Materials:

- Ceramic tiles	- Klinker	- Internal insulating and soundproofing panels
- Porcelain tiles	- Marble and natural stone	
- Terracotta	- Various mosaics	

Uses:

- Adhesive and finishing	- Terraces and balconies	- Commercial
- Floors and walls	- Swimming pools and fountains	- Industrial
- For internal use - external	- Saunas and spa	- Street furniture
- Overlaying	- Domestic	- Marine

* 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 the substrate

All substrates must be level, cured, undamaged, compact, rigid, resistant, dry and free from any debonding agents and from damp rising (x UK) - All surfaces must be leveled, cured, undamaged, compact, rigid, resistant, dry and free from any loose particles and damp rising (x INDIA). It is good practice to dampen highly absorbent concrete substrates or apply a coat of Primer A Eco.

Adhesive preparation

Mixing water (EN 12004-2):

- Grey ≈ 30,5% – 33,5% by weight
- White Shock ≈ 33% – 36% by weight

Mixing water on-site:

- Grey ≈ 7,8 l / 1 bag
- White Shock ≈ 8,3 l / 1 bag

The amount of water to be added, indicated on the packaging, is an approximate guide. It is possible to obtain mixtures with consistency of variable thixotropy according to the application to be made.

Application

To guarantee structural adhesion it is necessary to apply a layer of adhesive sufficient to cover the entire back of the coating material. Large, rectangular sizes with sides > 60 cm and low thickness sheets may require adhesive to be applied directly to the back of the material.

Check samples to make sure the adhesive has been transferred to the back of the material.

Create elastic expansion joints:

- ≈ 10 m² in external applications,
- ≈ 25 m² in internal applications,
- every 8 metres in long, narrow applications.

Respect all structural, fractionizing and perimeter joints present in the substrates.

SPECIAL NOTES

Pre-treatment of special substrates

Gypsum-based plasters/renders, anhydrite screeds and cellular concrete, for internal use: Primer A Eco

Vinyl sheets for interior use: Keragrip Eco

Please see the technical data sheet on how to use the Primers properly.

Materials and special substrates

Marble and natural stone: materials that are subject to deformation or staining due to water absorption require a quick-setting or reactive adhesive.

Marble and natural stone in general may have characteristics that vary even with reference to materials of the same chemical and physical nature. For this reason it is essential you consult Kerakoll Global Service to request specific indications or to carry out a test on a sample of the material.

In the absence of specific indications from the manufacturer, natural stone slabs with reinforcement layers, in the form of resin coating, polymer mesh, matting, etc. or treatments (for example damp courses, etc.) applied on the laying surface must be tested in advance to ensure they are compatible with the adhesive.

Check for the presence of any really consistent traces of rock dust created during cutting, and remove them if found.

Waterproofing products: adherent and floating polymer sheets, liquid bitumen and tar-based sheets or membranes require application of a laying screed on top.

Special applications

Insulating and soundproofing panels applied using spot adhesion as recommended by the manufacturers.

Plasterboard and fibro-cement slabs must be firmly anchored to specific metal frames.

Do not use

- On timber, metal, plastic or resilient materials, deformable substrates or subject to vibrations.
- On screeds, plasters/renders, concrete not yet cured and affected by important drying shrinkage.
- On organic-based waterproofing products (such as RM according to EN 14891).
- On smooth prefabricated concrete.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Shelf life	≈ 12 months from production in the original sealed packaging, protect from humidity	
Pack	25 kg	
Adhesive thickness	from 2 to 15 mm	
Temperature of the air, substrates and materials	from +5 °C to +35 °C	
Pot life at +23 °C		
- Grey	= 8 hrs	
- White Shock	= 8 hrs	
Open time at +23 °C:		
- Grey	= 30 min.	EN 1346
- White Shock	= 30 min.	EN 1346
Time required until fully frost-proof:		
- from +5 °C to -5 °C	≈ 12 hrs	
Foot traffic/grouting of joints at +23 °C:		
- Grey	≈ 24 hrs	
- White Shock	≈ 24 hrs	
Grouting in walls at +23 °C:		
- Grey	≈ 12 hrs	
- White Shock	≈ 12 hrs	
Ready for use at +23 °C / +5 °C:		
- light foot traffic	≈ 2 – 3 days	
- heavy traffic	≈ 3 – 7 days	
- swimming pools (+23 °C)	≈ 14 days	
Coverage per mm thickness:		
- Grey (mixing ratio 32%)	≈ 1,25 kg/m ²	
- White Shock (mixing ratio 33%)	≈ 1,25 kg/m ²	

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

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

Conformity	EC 1 plus GEV-Emicode	GEV certified 4616/11.01.02
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HIGH-TECH

Shear adhesion (porcelain tiles/porcelain tiles) after 28 days	≥ 1 N/mm ²	ANSI A-118.4
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Tensile adhesion (concrete/porcelain tiles) after 28 days	≥ 2 N/mm ²	EN 12004-2
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Durability test:

- adhesion after heat ageing	≥ 1 N/mm ²	EN 12004-2
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- adhesion after water immersion	≥ 1 N/mm ²	EN 12004-2
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- adhesion after freeze-thaw cycles	≥ 1 N/mm ²	EN 12004-2
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Working temperature	from -30 °C to +80 °C	
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Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

WARNING

- **Product for professional use**
- abide by any standards and national regulations
- do not use the adhesive to correct substrate irregularities greater than 15 mm
- protect from direct rainfall for at least 24 hrs
- the temperature, ventilation and absorption of the substrate and covering materials, may vary the adhesive workability and setting times
- use the right size of toothed spreader for the format of the tile or slab
- guarantee a full-bed in all external laying operations
- 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

The Rating classifications refer to the GreenBuilding Rating® Manual 2013. This information was last updated in April 2021 (ref. GBR Data Report - 05.21); please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see 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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