

Biofix

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.



1. Floors and walls, for internal and external use
2. With low VOC emissions
3. With Organic Salts
4. Open time ≥ 30 min.
5. With no vertical slip

Rating 3



- ✓ Regional Mineral $\geq 60\%$
- × Recycled Regional Mineral $\geq 30\%$
- × CO₂ Emission ≤ 250 g/kg
- ✓ VOC Low Emission
- ✓ Recyclable

Areas of application

→ Use

Substrates:

- cement-based screeds and mortars
- anhydrite screeds ⁽¹⁾
- cement-based plasters/renders
- gypsum-base plasters ⁽¹⁾
- plasterboard
- interior waterproofing product
- fibro-cement slabs
- cement boards ⁽¹⁾
- gypsum boards ⁽¹⁾

⁽¹⁾ After application of Active Prime Fix or Active Prime Grip

Materials:

- ceramic tiles
- porcelain tiles
- terracotta
- klinker
- marble and natural stone
- ceramic mosaics
- internal insulating and soundproofing panels

Uses:

- floors and walls
- internal use – external use
- domestic
- commercial
- street furniture

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 smooth prefabricated concrete (unless treated)
- On heated floors
- When applied over old flooring
- On organic-based waterproofing products (such as RM according to EN 14891).

Instructions for use

→ Preparation of substrates

All substrates must be free from dust, oil and grease, dry and free from any rising damp, with no loose, flaky or imperfectly anchored parts such as residual traces of cement, lime and paint, which must be totally removed. The substrate must be stable and without cracks, must have already completed the hygrometric shrinkage curing period and must present suitable mechanical resistance levels. Uneven areas must be corrected in advance with suitable finishing products.

Substrates with weak surface consistency: screeds and plasters which present a weak crystalline structure in the initial mm of thickness and which can be easily abraded must be consolidated by means of Keradur Eco, the eco-friendly, water-based depth consolidant, to be applied with one or more coatings and according to the instructions, until a surface has been obtained which is still absorbent but compact.

Highly absorbent substrates: when laying on screeds and plasters which are compact but highly absorbent, in warm climates and with direct ventilation, it is advisable to apply in advance one or more coatings of Active Prime Fix or Active Prime Grip primers according to the instructions.

→ Preparation

Mixing water (EN 12004):

- | | |
|-------------|-------------|
| Grey | ≈ 25% – 29% |
| White Shock | ≈ 25% – 29% |

Mixing water on-site

- | | |
|-------------|---------------------|
| Grey | ≈ 5.5 – 7 l / 1 bag |
| White Shock | ≈ 5.5 – 7 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.

Instructions for use

Prepare Biofix in a clean container, first of all pouring in a quantity of water equal to approximately $\frac{3}{4}$ of the amount required. Gradually pour Biofix into the container, mixing the paste from the bottom upwards with a low-rev (400/min.) electrical mixer. 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 adhesive, a stirring device with vertical blades and slow rotation is recommended. 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. Adding extra water does not improve the workability of the product, and may cause shrinkage in the plastic phase of drying and result in less effective final performance with a reduction in compressive strength and adhesion to the substrate.

→ Application

Biofix should be applied with a suitable toothed spreader, to be chosen according to the size and characteristics of the rear surface of the tiles. It is best to use the smooth part of the trowel to spread a fine initial layer, pressing down hard so as to obtain maximum adhesion to the substrate and to regulate water absorption, after which the thickness can be adjusted as required by tilting the spreader at an angle.

Spread the adhesive over a surface area which will allow for the laying of the surface materials within the indicated open time, and check for suitability at regular intervals. The open time may vary considerably even during the application, depending on various factors such as exposure to sunlight, air currents, absorbency level of the substrate, temperature and relative air humidity. Press any tile sufficiently to ensure complete and even contact with the adhesive itself. In environments subject to heavy traffic and in external locations, use the double-spread technique to ensure 100% application of the product to the rear of the tiles. Respect structural, fractionizing, and perimeter joints present in the substrates. Abide by local existing provisions when creating elastic expansion joints.

→ Cleaning

Clean the tools and any residues of the product from the surfaces using water while the adhesive is still fresh. Once hardened, the adhesive can only be removed by mechanical means.

Special notes

→ Materials and special substrates

Marble and natural stone: subject to deformation or staining due to water absorption, they 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 Gulf Technical Department 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.

Certificates and marks



Abstract

High-performance laying of ceramic tiles will be carried out with eco-friendly, single-component, mineral adhesive with high adhesion, compliant with standard EN 12004 – class C2 TE, GreenBuilding Rating 3, such as Biofix by Kerakoll Spa. Substrates must be compact, with no loose, flaky material, clean and fully cured, having already completed the curing period for hygrometric shrinkage. A ____ mm toothed spreader must be used for an average coverage of \approx ____ kg/m². Existing joints must be respected, create elastic fractionizing joints every ____ m² of continuous surface. Ceramic tiles must be laid with joint-gap spacers with a width of ____ mm.

Technical Data compliant with Kerakoll Quality Standard

Appearance	white or grey pre-mixed powder	
Pack	25 kg bags	
Shelf life	≈ 12 months in the original packaging in dry environment. Protect from humidity	
Thickness	from 2 to 10 mm	
Temperature range for application	from +5 °C to +40 °C	
Pot life at +23 °C	≈ 4 hrs	EN 12004-2
Open time to +23 °C	≈ 30 min.	
Correction time at +23 °C	≈ 30 min.	
Grouting of joints at +23 °C:		
- on walls	≈ 12 hrs	
- on floor	≈ 24 hrs	
Ready for use at +23 °C:		
- light foot traffic	≈ 24 hrs	
- heavy traffic	≈ 4 days	
Coverage per mm of thickness	≈ 1.25 kg/m ²	

Values taken at +23 °C, 50% R.H. and no ventilation.

Performance**VOC Indoor Air Quality (IAQ) - Volatile organic compound emissions**

Conformity	EC 1 plus GEV-Emicode	GEV Certified 4984/11.01.02
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HIGH-TECH

Shear adhesion on ceramic biscuit after 28 days	$\geq 1 \text{ N/mm}^2$	ANSI A-118.4
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Tensile adhesion (concrete/porcelain tiles) after 28 days	$\geq 1 \text{ N/mm}^2$	EN 12004-2
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Durability test:

- adhesion after heat ageing	$\geq 1 \text{ N/mm}^2$	EN 12004-2
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- adhesion after water immersion	$\geq 1 \text{ N/mm}^2$	EN 12004-2
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Working temperature	from -30 °C to +80 °C	
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Conformity	C 2TE	EN 12004
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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 10 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 notched trowel 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 Gulf Service - info@kerakoll.ae

The Rating classifications refer to the GreenBuilding Rating Manual 2013. This information was last updated in April 2023 (ref. GBR Data Report - 05.23); 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.