

Biocem

Mineral binder for screeds to fix vitrified tiles and natural stones using wet-on-wet technique and as a dry screed for underlay application.



Rating 2

1. Prolonged workability
2. Guaranteed performances
3. Does not create stains
4. No efflorescence effect
5. Rapid-drying and no curing
6. Compensated shrinkage
7. Ideal with Biotack

- × Regional Mineral $\geq 60\%$
- × Recycled Mineral $\geq 30\%$
- × $\text{CO}_2 \leq 250 \text{ g/kg}$
- ✓ VOC Very Low Emission
- ✓ Recyclable

Areas of application

→ Use

The combination of surfaces, materials and uses indicated may not always be possible to achieve. It is essential that you consult the individual product technical sheets to check their suitability. Information not mentioned on this list must be requested directly from the Kerakoll India Helpline 1800-200-6550.

Substrates

- Cement based surfaces
- Floors in concrete
- Low-density concrete
- Heat-insulating and soundproofing panels
- Existing PCC and IPS

Materials

- Vitrified tiles
- Low thickness slabs
- Ceramic tiles
- Large size
- Natural stone
- Recomposed materials
- Glass and ceramics mosaics

Uses

- Internal screeds - External
- Domestic applications
- Commercial applications
- Industrial applications
- Street furniture
- Heated floors

Instructions for use

→ Preparation of the surface

Clean dirt, dust, loose fragments, and remove laitances and all contaminants by mechanical means using grinder and with hand held diamond grinders for edge work to achieve fairly uniform finish.

All surfaces must be dimensionally stable, level, cured, undamaged, compact, rigid, resistant, dry and free from any debonding agents and from damp rising.

Before commencement of screeding, damp the substrate with water to ssd condition (surface saturated dry).

→ Screed preparation

Biocem is mixed using water and inert materials until a semi-dry consistency is obtained. Use Kerakoll Quartzo to obtain certified screeds or use inert materials of assorted grain size from 0 to 8 mm, cleaned from dust and earth residues, to create screeds with thicknesses between 20 and 80 mm.

The percentage of mixing water varies depending on the humidity content in the inert material.

→ Application

Biocem is applied using the traditional methods for cement-based screeds: preparation of levelling layers, casting and compacting of the mix, flattening and final smoothing with a power floater or mechanical means. To obtain the mechanical performance required, the screed must be carefully compacted.

For the fixing of tiles and natural stones please refer to the Biotack adhesive slurry technical data sheet.

→ Cleaning

Residual traces of Biocem can be removed from tools and machinery using water before the product hardens.

Special notes

→ Pre-treatment of special surfaces

Highly-absorbent surfaces must be dampened using water to saturation point.

→ Special applications

If the anchored screeds have a thickness of < 40 mm, apply a slurry key to the surface prepared with 4 parts of Biocem, 1 part of Aquastop P6 latex, 1 part of water.

Dampen the surface with a lot of water if it is very absorbent.

Do not use on deformable surfaces, without having previously calculated the degree of flexure and having provided for the necessary fractionizing joints; in adhesion on not completely cured concrete.

Certificates and marks



Technical Data compliant with Kerakoll Quality Standard		
Pack	25 kg bags	
Shelf life	≈ 12 months from production in the original sealed packaging, protect from humidity	
Doses for 1 m ³ of Quartzo	refer to dosages table	EN 13139 – IS 383
Apparent volumetric mass	≈ 1 kg/dm ³	
Dry density of Biocem as a screed	1300 – 1400 kg/m ³	
Wet density of Biocem as a screed (1:4)	2100 ± 50 kg/m ³	
Wet density of Biocem as a screed (1:6)	2000 ± 50 kg/m ³	
Wet density of Biocem as a screed (1:8)	1950 ± 50 kg/ m ³	
Pot life at +23 °C	≈ 3 hrs	
Foot traffic at +23 °C:		
- dry screed	≈ 8 hrs	
- traditional fixing	≈ 24 hrs	
Waiting time before fixing at +23 °C:		
- tiles	≥ 24 h – U.R. < 3 CM-%	
- hardwood floors	≥ 5 gg – U.R. < 2 CM-%	
Temperature of the air, substrates and materials	from +5 °C to +35 °C	
Maximum thickness obtainable by coat	≈ 40 mm	
Coverage	≈ 1.2 – 2.5 kg/m ² per cm of thickness	

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

Conformity EC 1 plus GEV-Emicode GEV certified 5762/11.01.02

Recommended dosages for the fixing of all types of vitrified tiles and natural stones depending on the intended use

	Biocem ratio : Quartzo by volume	Biocem in 1 m³ of Quartzo	Water (*)	Compression at 28 days according to EN 13892-2
Fixing with the wet-on-wet technique	1 : 8	125 kg/m ³	45% of the weight of Biocem	≥ 15 MPa
Fixing on dry screed	1 : 6	165 kg/m ³	40% of the weight of Biocem	≥ 22 MPa
Fixing in a heavy traffic areas	1 : 4	250 kg/m ³	35% of the weight of Biocem	≥ 28 MPa

(*) depending on the humidity of the inert material - Local standards might request different proportions.

For uses other than those indicated, the Biocem dosage must be calculated using the technical specifications mentioned on the data sheet.

Warning

- Product for professional use
- abide by any standards and national regulations
- use in the recommended dosages
- do not add other binders, additives or water to the mixture during the setting phase
- low temperatures and high relative humidity lengthen the drying time of the screed
- an excessive quantity of water and use of inert materials with a granulometric grading lower than that recommended or non-assorted will reduce strength and the drying time
- before fixing hardwood floors and resilient materials, check residual moisture with a calcium carbide hygrometer
- do not moisten the screed and protect it from direct sunlight and currents of air for the first 24 hrs
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll Worldwide Global Service 1800 102 4957 - info@kerakollindia.com

The Rating classifications refer to the GreenBuilding Rating Manual 2012. This information was last updated in June 2024 (ref. GBR Data Report - 05.24); 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 site 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.