

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.



FEATURES AND ADVANTAGES

PROLONGED WORKABILITY

NO EFFLORESCENCE EFFECT

IDEAL WITH BIOTACK

GUARANTEED PERFORMANCES

RAPID-DRYING AND NO CURING

CERTIFIED WITH QUARTZO

DOES NOT CREATE STAINS

COMPENSATED SHRINKAGE

PUMPABLE

GREENBUILDING RATING®

- Category: Inorganic Mineral Products
- Class: Mineral screeds and binders for substrates
- Rating: Eco 2

				 Very low VOC emissions	 Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

- The GreenBuilding Rating® is a dependable and reliable evaluation method for measuring and improving the environmental performance of building materials.

ECO NOTES

- Can be recycled as mineral inert material, avoiding waste disposal costs and environmental impact
- With very low volatile organic compound emissions

COMPLIANCE AND CERTIFICATIONS



AREAS OF 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.

SURFACE

**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 FORMATS
NATURAL STONE
RECOMPOSED MATERIALS
GLASS AND CERAMICS MOSAICS**

USES

**INTERNAL - EXTERNAL SCREEDS
DOMESTIC APPLICATIONS
COMMERCIAL APPLICATIONS
INDUSTRIAL APPLICATIONS
STREET FURNITURE
HEATED FLOORS**



• **PREPARATION OF THE SURFACE**

All surfaces must be dimensionally stable according to IS 1443-1972, level, cured, undamaged, compact, rigid, resistant, dry and free from any debonding agents and from damp rising.

• **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.



The SAFE FIXING ON SITE method has the aim of testing adhesives both using relevant standards and in some of the most extreme conditions that can be met on site, using rigorous scientific methods and some of the most modern technology currently available in the Kerakoll® GreenLab.



• **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 P5 Eco 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.

WORKABILITY

Pack	25 kg
Shelf life	≈ 12 months in the original packaging Protect from humidity
Apparent volumetric mass	≈ 1 kg/dm ³
Doses for 1 m³ of Quartzo (EN 13139 – IS 383)	refer to Dosages table
Coverage per cm of thickness	≈ 1,2 – 2,5 kg/m ²
Temperature of the air, substrates and materials	from +5 °C to +35 °C
Pot life	+23 °C ≈ 3 hrs
Foot traffic at +23 °C:	
- dry screed	≈ 8 hrs
- traditional fixing	≈ 24 hrs
Waiting time for fixing at +23 °C:	
- tiles	≥ 24 hrs R.H. < 3 CM-%
- hardwood floors	≥ 5 days R.H. < 2 CM-%

PERFORMANCE

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

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

DOSAGES

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

Dosage	Biocem ratio : Quartzo by volume	Biocem in 1 m ³ 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	40% of the weight of Biocem	≥ 16 MPa
Fixing on dry screed	1 : 6	165 kg/m ³	40% of the weight of Biocem	≥ 23 MPa
Fixing in a heavy traffic areas	1 : 4	250 kg/m ³	40% of the weight of Biocem	≥ 30 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.

GENERAL NOTICES

- **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 the 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 India Helpline (Toll Free) 1800-200-6550 - info@kerakollindia.com

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