Bioflex
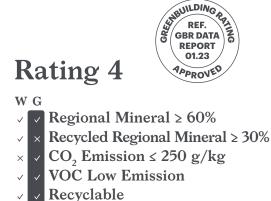
Mineral adhesive for high performance bonding of porcelain tiles, ceramic tiles and natural stone, with no vertical slip and long open time.

1. With very low-VOC emissions
2. With Organic Salts
3. With extra-pure inert minerals

Rating 4

GREENBUILDING RATING
REF. GBR DATA REPORT 01.23
APPROVED

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✓	✓	Regional Mineral ≥ 60%
✓	✗	Recycled Regional Mineral ≥ 30%
✗	✓	CO_2 Emission ≤ 250 g/kg
✓	✓	VOC Low Emission
✓	✓	Recyclable

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Areas of application

→ Use
Substrates:
- existing tiles
- waterproofing products
- Heated floors
- Cement-based screeds
- Asphalt screeds [1]
- Concrete
- Plasterboard
- Fibro-cement slabs
- Gypsum and anhydrite [1]
- Cellular concrete
- Smooth prefabricated concrete [1]
- Brick
- Lime and cement-based plasters/renders
- Thermal insulation panelling systems
- Insulating panels
- Timber [1]
- Metal [1]
- Pvc [1]

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

Materials:
- Ceramic tiles
- Porcelain tiles
- Terracotta
- Klinker
- marble and natural stone
- various mosaics
- Internal insulating and soundproofing panel

Uses:
- Adhesive and finishing
- Floors and walls
- For internal use - External
- Overlaying
- Terraces and balconies
- Swimming pools and fountains
- Saunas and spa
- Domestic
- Commercial
- Street furniture
- Marine
Do not use:
- On organic-based, reactive waterproofing products (such as RM according to EN 1489).

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. It is best to dampen highly absorbent cement-based substrates before the application or apply one coat of Active Prime Fix or Active Prime Grip.

→ Adhesive preparation
Mixing water (EN 12004-2):
- Grey ≈ 30% – 33% by weight
- White Shock ≈ 32.5% – 35.5% by weight
Mixing water on-site:
- Grey ≈ 7.8 l / 1 x 25 kg bag
- White Shock ≈ 8.3 l / 1 x 25 kg 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. 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 that is subject to deformation or staining due to water absorption requires 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 for interior use applied as recommended by the manufacturers.
  - Plasterboard and fibro-cement slabs must be firmly anchored to specific metal frames.

Certificates and marks

Technical Data compliant with Kerakoll Quality Standard

Appearance	White or grey pre-mixed powder	
Pack	25 kg bags	
Shelf life	≈ 12 months from production in the original sealed packaging, protect from humidity	
Thickness	from 2 to 15 mm	
Temperature range for application	from +5 °C to +35 °C	
Pot life at +23 °C	≈ 8 hrs	
Open time at +23 °C (BIII tile):	≥ 60 min.	EN 12004-2
Correction time at +23 °C (BIII tile)	≥ 20 min.	
Time required until fully frost-proof:		
- from +5 °C to -5 °C	≈ 8 hrs	
Foot traffic/grouting of joints at +23 °C (BIa tile):		
- white shock	≈ 20 hrs	
- grey	≈ 24 hrs	
Grouting in walls at +23 °C:		
- white shock	≈ 15 hrs	
- grey	≈ 20 hrs	
Ready for use at +23 °C:		
- light foot traffic	≈ 2 – 3 days	
- heavy traffic	≈ 3 – 7 days	
- swimming-pools	≈ 14 days	
Coverage per mm thickness:		
- white shock (mixing ratio 33%)	≈ 1.25 kg/m²	
- grey (mixing ratio 32%)	≈ 1.25 kg/m²	

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

HIGH-TECH

Shear adhesion (porcelain tiles/ porcelain tiles) after 28 days	≥ 1 N/mm^2	ANSI A-118.4
Tensile adhesion (concrete/porcelain tiles) after 28 days	≥ 2 N/mm^2	EN 12004-2
Durability test:		
- adhesion after heat ageing	≥ 1 N/mm^2	EN 12004-2
- adhesion after water immersion	≥ 1 N/mm^2	EN 12004-2
- adhesion after freeze-thaw cycles	≥ 1 N/mm^2	EN 12004-2
Working temperature	from -30 °C to +80 °C	
Conformity	C2 TE	EN 12004

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 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 Worldwide Global Service +39 0536 811 516 - globalservice@kerakoll.com