

Biogel Revolution

Multi-purpose flexible structural gel adhesive. Longer workability with accelerated adhesion for bonding even in extreme conditions of all types of material, on any substrate for any use.



Rating 4_{White}

Rating 3_{Grey}

1. Doesn't cause irritation
2. The 1st no warning label-gel adhesive
3. Non thickening
4. Up to 1 hour of constant workability
5. Accelerated adhesion
6. Total safety after only 3 hours
7. Shape memory - per India Free flowing
8. High and low thickness
9. Full wettability no shrinkage

W G

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

kerakoll

Areas of application

→ Intended use:

Substrates Revolution:

- Existing tiles
- Waterproofing products
- Heated floors
- Cement-based screeds and self-levelling products
- Concrete
- Plasterboard
- Fibro-cement slabs
- Gypsum and anhydrite ⁽¹⁾
- Cellular concrete
- 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 Revolution:

- Porcelain tiles
- Laminated stoneware
- Low thickness slabs
- Ceramic tiles
- Large size

- 300x150 cm slabs
- Marble - natural stone
- Recomposed materials
- Glass mosaics
- Glass tiles
- Thermal and acoustic insulation
- Terracotta - Klinker

Uses Revolution:

- Adhesive and finishing
- Floors and walls)
- For internal use - external
- Overlaying
- Terraces and balconies
- Facades
- Swimming pools and fountains
- Saunas and spa
- Domestic
- Commercial
- Industrial
- 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.

→ Preparation

Mixing water (EN 12004-2)

Grey ≈ 21.5% – 24.5% weight (≈ 5.4 – 6.1 l/bag)

White Shock ≈ 27.5% – 30.5% weight (≈ 6.9 – 7.6 l/bag)

Mix Biogel Revolution using clean water until a smooth and lump-free mixture is obtained; leave the mixture to stand for a few minutes and mix again.

→ 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–natural stones and Recomposed materials: 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

- Facades: the substrate should guarantee a cohesive tensile strength of $\geq 1.0 \text{ N/mm}^2$. The need to call for suitable mechanical safety anchoring must be evaluated by the designer for coverings with $> 30 \text{ cm}$ side. For coverings with $> 60 \text{ cm}$, add to the mixing water a percentage of Top Latex Eco to assess the function of the thermo-dynamic strain provided by the structure. Always apply a layer of adhesive directly on the back of the material (per India tile/stone).

Certificates and marks



Grey



* 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).

Technical Data compliant with Kerakoll Quality Standard	
Appearance	White or grey pre-mixed powder
Pack	25 kg
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:	
- Grey	= 40 min.
- White Shock	= 30 min.
Correction time at +23 °C:	
- Grey	≥ 6 min.
- White Shock	≥ 6 min.
Time required until fully frost-proof:	
- from +5 °C to -5 °C	≈ 3 h
Foot traffic/grouting of joints at +23 °C:	
- Grey	≈ 3 h
- White Shock	≈ 3 h
Foot traffic/grouting of joints at +5 °C:	
- Grey	≈ 8 h
- White Shock	≈ 8 h
Grouting in walls at +23 °C:	
- Grey	≈ 2 h
- White Shock	≈ 2 h
Ready for use at +23 °C / +5 °C (BIa tile):	
- light foot traffic	≈ 6 – 16 hrs
- heavy traffic	≈ 24 – 28 hrs
- swimming pools (+23 °C)	≈ 7 days
Coverage per mm thickness:	
- Grey (mixing ratio 25%)	≈ 1,25 kg/m ²
- White Shock (mixing ratio 29%)	≈ 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 8562/11.01.02
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HIGH-TECH

Shear adhesion (porcelain tiles/porcelain tiles) after 28 days	$\geq 2 \text{ N/mm}^2$	ANSI A-118.4
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Tensile adhesion after 6 hrs	$\geq 0,5 \text{ N/mm}^2$	EN 12004-2
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Tensile adhesion (concrete/porcelain tiles) after 28 days	$\geq 2,5 \text{ N/mm}^2$	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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- adhesion after freeze-thaw cycles	$\geq 1 \text{ N/mm}^2$	EN 12004-2
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- adhesion after straining cycles	$\geq 1 \text{ N/mm}^2$	SAS Technology
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Transversal deformation	$\geq 2,5 \text{ mm}$	EN 12004-2
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Vertical slip	$\leq 0,5 \text{ mm}$	EN 12004-2
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Working temperature	from $-40 \text{ }^\circ\text{C}$ to $+90 \text{ }^\circ\text{C}$	
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Conformity:	C2F TE S1	EN 12004
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Grey	C2 S1 EF	CSTB 2900-213 MC - 549
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White	C2 S1 EF	CSTB 3139-156 MC - 549 CSTB 3172-213 MC - 549
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Values taken at $+23 \text{ }^\circ\text{C}$, 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 6 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



The Rating classifications refer to the GreenBuilding Rating Manual 2013. This information was last updated in December 2022 (ref. GBR Data Report - 01.23); please note that additions and/or amendments to this information 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.