

# Biogel® No Limits®

Standard setting, exclusive Kerakoll geo-binder based, structural flexible multi-purpose gel adhesive for bonding all types of material, on all substrates, and for all use, even in extreme conditions. Eco-friendly. Ideal for use in GreenBuilding.



**GREENBUILDING RATING®**

**Biogel® No Limits®**  
 - Category: Inorganic mineral products  
 - Laying ceramic, porcelain tiles and natural stone

Natural mineral content Grey 63%			CO <sub>2</sub> /kg emission Grey 217 g White 246 g	Very low VOC emissions	Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

**PRODUCT STRENGTHS**

- Thixotropic and fluid
- Double open time
- Shape memory
- Non-slip
- Water resistant
- High and low thickness
- Full wettability
- Frost risk reduced
- No shrinkage
- High deformation
- Structural adhesion
- Distributes tensile strength
- Increases resistance
- Transfers the forces
- Absorbs dynamic loads

**ECO NOTES**

- Formulated with locally-sourced minerals meaning lower greenhouse gas emission during transportation
- Contains recycled minerals thereby reducing the damage to the environment caused by extracting pure raw materials
- Single-component; avoiding the use of plastic cans reduces CO<sub>2</sub> emissions and the need to dispose of special waste

**AREAS OF USE**

**Use**

**Substrates No Limits:**

- Existing tiles	- Plasterboard	- Thermal insulation panelling systems
- Waterproofing products	- Fibro-cement slabs	- Insulating panels
- Heating systems	- Gypsum and anhydrite	- Impact noise insulation sheets
- Cement-based screeds	- Brick/blockwork	- Timber
- Asphalt/bitumen screeds	- Lime and cement-based plasters/renders	- Metal
- Concrete substrates		- PVC

**Materials No Limits:**

- Porcelain tiles	- Large formats	- Glass mosaics
- Laminated stoneware	- 300x150 cm slabs	- Glass tiles
- Low thickness slabs	- Marble - natural stone	- Thermal and acoustic insulation
- Ceramic tiles	- Recomposed materials	- Terracotta - klinker

**Uses No Limits:**

- Adhesive and finishing	- Terraces and balconies	- Domestic
- Floors and walls	- Façades	- Commercial
- For internal use - external	- Swimming pools and fountains	- Industrial
- Overlaying	- Saunas and spa	- Street furniture

Biogel® No Limits® Code: P 1025 2020/02 - UK

## INSTRUCTIONS FOR USE

### Preparation of the substrate

Substrates must comply with BS 5385, parts 1-5, be level, cured, undamaged, compact, rigid, resistant, dry and free from any debonding agents and from damp rising. It is good practice to dampen highly absorbent concrete substrates or apply a coat of Primer A Eco. Anhydrite substrates must have a residual humidity  $\leq 0,5$  CM-%. Cement-based screeds must have a residual humidity  $\leq 2$  CM-%. Anchored substrates must comply with BS 8204 and anhydrite must have a residual humidity  $\leq 0,3$  CM-%

### Preparation

Mixing water (EN 12004-26):

-Grey  $\approx 22 - 26\%$  by weight  
-White  $\approx 27 - 31\%$  by weight

Mixing water on-site

For low thickness laying and full wettability:  
-Grey  $\approx 5,5$  l / 1 bag  
-White  $\approx 6$  l / 1 bag

On walls, for high and low thickness

laying:  
-Grey  $\approx 4,5$  l / 1 bag  
-White  $\approx 5$  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.

### 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.

Create elastic expansion joints:

- $\approx 10$  m<sup>2</sup> in external applications (3,5x3,5 m)
- $\approx 40$  m<sup>2</sup> in internal applications (8x5 m) with underfloor heating
- $\approx 100$  m<sup>2</sup> in internal applications (10x10 m) without underfloor heating
- every 8 metres in long, narrow applications.

Respect all structural, fractionizing and perimeter joints present in the substrates.

## SPECIAL NOTES

### Pre-treatment of special substrates

Timber (internal use only) thickness  $\geq 15$  mm: Keragrip Eco

Metal (internal use only): Keragrip Eco

Asphalt/bitumen screed (internal use only): Keragrip Eco

Gypsum and anhydrite (internal use only): Primer A Eco

PVC (internal use only): Keragrip Eco

As treating special substrates is difficult to classify in a standard manner, it is always advisable to contact Kerakoll Global Service and/or request a site inspection by a GreenBuilding Consultant. In any case it is essential to carefully read the technical data sheet on how to use the indicated primers properly.

### Materials and special substrates

**Marble-natural stones and recomposed materials:** materials that are known to be 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. On organic-based waterproofing products (such as RM according to EN 14891).

### Special applications

**Façades:** the substrate should guarantee a cohesive tensile strength of  $\geq 1,0$  N/mm<sup>2</sup>.

The need to call for suitable mechanical safety anchoring must be evaluated by the designer for coverings with  $> 30$  cm side.

For coverings with  $> 60$  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.

## TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Shelf life	≈ 12 months in the original packaging in dry environment. Protect from humidity	
Pack	20 kg	
Adhesive thickness	from 2 to 15 mm	
Temperature of the air, substrates and materials	from +5 °C to +35 °C	
Pot life at +23 °C		
- Grey	≈ 4 hrs	
- White	≈ 4 hrs	
Open time at +23 °C (BIII tile):		
- Grey	≥ 60 min.	EN 1346
- White	≥ 60 min.	EN 1346
Time required until fully frost-proof (BIIa tile)		
- from +5 °C to -5 °C	≈ 8 hrs	
Foot traffic/grouting of joints at +23 °C (BIIa tile):		
- Grey	≈ 16 hrs	
- White	≈ 16 hrs	
Foot traffic/grouting of joints at +5 °C (BIIa tile):		
- Grey	≈ 42 hrs	
- White	≈ 24 hrs	
Grouting in walls at +23 °C (BIIa tile)		
- Grey	≈ 12 hrs	
- White	≈ 12 hrs	
Ready for use at +23 °C / +5 °C (BIIa tile)		
- light foot traffic	≈ 1 – 2 days	
- heavy traffic	≈ 3 – 5 days	
- swimming pools (+23 °C)	≈ 14 days	
Coverage per mm thickness:		
- Grey (mixing ratio 24,5%)	≈ 1.3 kg/m <sup>2</sup>	
- White (mixing ratio 30%)	≈ 1.2 kg/m <sup>2</sup>	
<i>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.</i>		

## PERFORMANCE

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

Conformity	EC 1 plus GEV-Emicode	Cert. GEV 7582/11.01.02
<b>HIGH-TECH</b>		
Shear adhesion (porcelain tiles/porcelain tiles) after 28 days	≥ 2.5 N/mm <sup>2</sup>	ANSI A-118.1
Tensile adhesion (concrete/porcelain tiles) after 28 days	≥ 2.5 N/mm <sup>2</sup>	EN 1348
Durability test:		
- adhesion after heat ageing	≥ 1 N/mm <sup>2</sup>	EN 1348
- adhesion after water immersion	≥ 1 N/mm <sup>2</sup>	EN 1348
- adhesion after freeze-thaw cycles	≥ 1 N/mm <sup>2</sup>	EN 1348
- adhesion after straining cycles	≥ 1 N/mm <sup>2</sup>	SAS Technology
Vertical slip	≤ 0.5 mm	EN 1308
Transversal deformation	≥ 2.5 mm	EN 12002
Working temperature	from -40 °C to +90 °C	
<i>Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.</i>		

## 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 toothed spreader 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 01527 578000 - info@kerakoll.co.uk

The Rating classifications refer to the GreenBuilding Rating® Manual 2012. This information was last updated in January 2020 (ref. GBR Data Report - 02.20); please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see [www.kerakoll.com](http://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.