

# H40 Gel

Standard setting, multipurpose Gel-Adhesive, structural, highly flexible, thixo & fluid. For all types and sizes of porcelain, ceramic tiles and natural stone.



1. High adhesion and deformability
2. Extended open time and pot-life
3. Non slump and non slip



**Rating 3** White

**Rating 4** Grey

W G

- × ✓ Regional Mineral ≥ 60%
- × × Recycled Mineral ≥ 30%
- ✓ ✓ CO<sub>2</sub> ≤ 250 g/kg
- ✓ ✓ VOC Very Low Emission
- ✓ ✓ Recyclable

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## Areas of application

### → Intended use:

#### Substrates:

- existing tiles
- waterproofing products
- heating systems
- cement-based screeds
- asphalt screeds
- concrete substrates
- plasterboard
- fibro-cement slabs
- gypsum and anhydrite
- brick/blockwork
- lime and cement-based plasters/renders
- thermal insulation panelling systems
- insulating panels
- impact noise insulation sheets
- timber - metal - PVC

### Materials:

- 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:

- 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

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## Instructions for use

### → Preparation of the substrate

Substrates must comply with BS 5385, parts 1-5, be level, cured, undamaged, compact, rigid, 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 Active Prime Fix. 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 with underfloor heating must have a residual humidity  $\leq 0,3$  CM-%.

### → Preparation

#### Mixing water (EN 12004-26):

Grey  $\approx 23\% - 29\%$  by weight  
white  $\approx 26\% - 33\%$  by weight

#### Mixing water on-site

For low thickness laying and full wettability:

Grey  $\approx 5.7$  l / 1 bag  
white  $\approx 6.6$  l / 1 bag

on walls, for high and low thickness laying:

Grey  $\approx 4.5$  l / 1 bag  
white  $\approx 5.1$  l / 1 bag

The amount of water indicated on the packaging is indicative. 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 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 (approx. 3x3 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): Active Prime Fix

Metal (internal use only): Active Prime Fix

Asphalt/bitumen screed (internal use only):

Active Prime Fix

Gypsum and anhydrite (internal use only): Active Prime Fix

PVC (internal use only): Active Prime Fix

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. In the case of reactive waterproofing products (such as RM waterproofing according to EN 14891) it is necessary to use a reactive adhesive.

### → 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.

Swimming pools: for porcelain tiles with  $> 30 \text{ cm}$  side, consider the adoption of a rapid setting adhesive, H40 Advanced.

## Certificates and marks



<b>Technical Data compliant with Kerakoll Quality Standard</b>		
Shelf life	≈ 12 months from production in the original sealed packaging, 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 12004-2
- White	≥ 60 min.	EN 12004-2
Foot traffic/grouting of joints at +23 °C (BIa tile):		
- Grey	≈ 16 hrs	
- White	≈ 16 hrs	
Foot traffic/grouting of joints at +5 °C (BIa tile):		
- Grey	≈ 42 hrs	
- White	≈ 24 hrs	
Grouting in walls at +23 °C (BIa tile):		
- Grey	≈ 12 hrs	
- White	≈ 12 hrs	
Ready for use at +23 °C / +5 °C (BIa tile):		
- foot traffic	≈ 1 – 2 days	
- heavy traffic	≈ 3 – 5 days	
- swimming pools (+23 °C)	≈ 14 days	
Coverage per mm thickness:		
- Grey (mixing ratio 26%)	≈ 1.3 kg/m <sup>2</sup>	
- White (mixing ratio 30%)	≈ 1.2 kg/m <sup>2</sup>	

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 14613/11.01.02
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**HIGH-TECH**

Shear adhesion (porcelain tiles/ porcelain tiles) after 28 days	$\geq 2.5 \text{ N/mm}^2$	ANSI A-118.4
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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
- adhesion after water immersion	$\geq 1 \text{ N/mm}^2$	EN 12004-2
- adhesion after freeze-thaw cycles	$\geq 1 \text{ N/mm}^2$	EN 12004-2
- adhesion after straining cycles	$\geq 1 \text{ N/mm}^2$	SAS Technology

Vertical slip	$\leq 0.5 \text{ mm}$	EN 12004-2
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Transversal deformation	$\geq 2.5 \text{ mm}$	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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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 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 01772 456 831 - [info@kerakoll.co.uk](mailto:info@kerakoll.co.uk)

The Rating classifications refer to the GreenBuilding Rating Manual 2013. This information was last updated in June 2023 (ref. GBR Data Report - 06.23); 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 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.