Code: P1284 2024/08 - UK/EN

H40 Advanced

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

1. Long workability with accelerated adhesion
2. High adhesion and deformability
3. Doesn't cause irritation
4. No environmental hazard rating

GREENBUILDING RATING
REF. GBR DATA REPORT 06.23
APPROVED

Rating 3

W	G	
×	×	Regional Mineral ≥ 60%
×	×	Recycled Mineral ≥ 30%
✓	✓	CO_2 ≤ 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
- concrete substrates
- plasterboard
- fibro-cement slabs
- gypsum and anhydrite
- asphalt screeds
- 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

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. It is good practice to dampen highly absorbent concrete substrates or apply a coat of Active Prime Fix. Anhydrite screeds must have a damp content of ≤ 0.5 % CM and be adequately sanded, cleaned using a suitable vacuum cleaner and primed.

→ Preparation of wood substrates
Make sure that the floor is able to bear the added weight of the tiles plus the static / dynamic service load indicated in the project. The wooden substrate must be rigid and stable and within normal levels of humidity; it may be necessary to strengthen the structure by inserting reinforcement noggings between the beams. Select appropriate plywood sheets of suitable thickness before laying the tiles (as indicated in BS5385-3). The plywood sheets must be screwed onto the beams with screws placed every 300 mm from the centre. The screws must be of a suitable length to ensure they fasten to the substrate, taking care not to damage anything under the floor. All sheet edges must be supported by beams or reinforcements. The surface of the sheet must be cleaned before laying to remove any dust and debris.
If the surface of the sheet has been treated in advance with fireproofing or waterproofing materials, check that the sheet is certified by the manufacturer for laying of tiles. A test should also be carried out in advance to ensure that the treatment in question does not restrict the adhesion of the adhesive itself. If in doubt, please contact Kerakoll Global Service before laying.

→ Adhesive preparation
Mixing water (EN 12004-26)
Grey ≈ 20% – 23% by weight
white ≈ 28% – 30% by weight
Mixing water on-site
For low thickness laying and full wettability:
Grey ≈ 4.6 l / 1 bag
white ≈ 6 l / 1 bag
on walls, for high and low thickness laying:
Grey ≈ 4 l/1 bag
white ≈ 5.5 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.

Instructions for use

→ 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:
- ≈ 10 m² in external applications (approx. 3x3 m)
- ≈ 40 m² in internal applications (8x5 m) with underfloor heating
- ≈ 100 m² 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
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: 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 ≥ 1.0 N/mm².
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.

Certificates and marks

Technical Data compliant with Kerakoll Quality Standard		
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	≈ 1 hr	
- white	≈ 1 hr	
Open time at +23 °C (BIII tile):		
- Grey	≥ 45 min.	EN 12004-2
- White	≥ 45 min.	EN 12004-2
Correction time White and Grey (BIII tile):		
+23 °C	≥ 6 min.	
Foot traffic/grouting of joints at +23 °C (BIa tile):		
- Grey	≈ 3 hrs	
- White	≈ 3 hrs	
Foot traffic/grouting of joints at +5 °C(BIa tile):		
- Grey	≈ 7 hrs	
- White	≈ 7 hrs	
Grouting in walls at +23 °C (BIa tile):		
- Grey	≈ 2 hrs	
- White	≈ 2 hrs	
Ready for use at +23 °C / +5 °C (BIa tile):		
- foot traffic	≈ 6 – 16 hrs	
- heavy traffic	≈ 24 – 28 hrs	
- swimming pools (+23 °C)	≈ 7 days	
Coverage per mm thickness:		
- Grey (mixing ratio 23%)	≈ 1.3 kg/m^2	
- White (mixing ratio 28.5%)	≈ 1.2 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 14614/11.01.02
HIGH-TECH		
Shear adhesion (porcelain tiles/porcelain tiles) after 28 days	≥ 2 N/mm²	ANSI A-118.4
Tensile adhesion after 6 hrs	≥ 0.5 N/mm²	EN 12004-2
Tensile adhesion (concrete/porcelain tiles) after 28 days	≥ 2.5 N/mm²	EN 12004-2
Durability test:		
- adhesion after heat ageing	≥ 1 N/mm²	EN 12004-2
- adhesion after water immersion	≥ 1 N/mm²	EN 12004-2
- adhesion after freeze-thaw cycles	≥ 1 N/mm²	EN 12004-2
- adhesion after straining cycles	≥ 1 N/mm²	SAS Technology
- concentrated load on plywood/porcelain tiles after 28 days	≥ 15 kN	Timber Tested
- flexural strength of the plywood/ porcelain tiles system after 28 days	≥ 35 N/mm²	Timber Tested
- adhesion after strain cycles on plywood	≥ 1 N/mm²	SAS Timber Tested
Vertical slip	≤ 0,5 mm	EN 12004-2
Transversal deformation	≥ 2.5 mm	EN 12004-2
Working temperature	from -40 °C to +90 °C	

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 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 01772 456 831 - info@kerakoll.co.uk