

H40 Extreme

Hybrid, structural, multi-purpose, extra-flexible, extra-workable Gel-Adhesive.
For all types and sizes of porcelain tiles, ceramic tiles and natural stones.



1. Extreme adhesion
2. Extreme deformability
3. Extreme fluidity

Rating 2

- × Regional Mineral $\geq 30\%$
- × VOC Low Emission
- ✓ Solvent ≤ 5 g/kg
- × Low Ecological Impact
- ✓ Health Care



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Areas of application

→ Use

Substrates:

- existing tiles
- heated floors
- cement-based screeds
- concrete
- plasterboard
- fibro-cement slabs
- gypsum and anhydrite (1)
- cellular concrete
- brick
- lime and cement-based plasters/renders
- finished and subsequently plastered thermal insulation panelling systems
- cracked screeds
- wood – metal – sheet metal (2)
- rubber floors – PVC (2)
- high-thickness coatings in epoxy and polyurethane resin
- aluminium honey-comb
- pre-formed panels for screedless heating systems, coupled with aluminium sheet on the surface

(1) apply 1 coat of EP21 as a dust consolidator. Internal use only.

(2) clean with Keragrip Eco Pulep.

Materials:

- porcelain tiles
- laminated stoneware and/or stoneware featuring backing materials
- porcelain tile with resin back
- large format tiles (up to 160x320 cm)
- low thickness slabs
- ceramic tiles
- marble - natural stone

- marble with resin back
- resin-based recomposed materials
- cement-based recomposed materials
- glass mosaics
- glass tiles
- thermal and acoustic insulation (with the exclusion of polystyrene and Styrofoam or any other material that can be attacked by plasticizers)
- terracotta - klinker
- metal tiles

Uses:

- adhesive
- interior waterproofing product
- floors and walls
- for internal use - external
- overlaying
- terraces and balconies
- facades
- swimming pools and fountains
- saunas and spa
- domestic
- commercial
- industrial
- street furniture

Do not use:

- in direct contact with polystyrene (Styrofoam, EPS, XPS, etc.)
- on Nanoflex No Limites waterproof gel-membrane
- on cement-polymer waterproofing sheathings, check the suitability on the producer's technical data sheets
- on substrates that are not fully dry and subject to moisture rising

Instructions for use

→ The instructions for use are referred, where prescribed, to Italian Standard UNI 11493 "Laying of ceramic tiles on floors and walls. Instructions for planning, laying and maintenance".

→ Preparation of the substrate (UNI 11493 - point 7.3)

All the substrates must be flat, compact, resistant, free from dust, loose particles and debonding agents and not be subject to moisture rising.

→ Adhesive preparation

Single Pack: Part B is found inside the pack. Respect the preset ratio of 8.6 : 1.4. Remix part B into the bucket containing part

A, being careful to mix the two parts uniformly until a smooth, even coloured mixture is obtained.

Packs of H40 Extreme must be stored at a temperature of $\approx +20^{\circ}\text{C}$ for at least 2/3 days prior to use.

→ Application (UNI 11493 - points 7.9/11)

H40 Extreme can be applied with a suitable toothed spreader, to be chosen according to the size and type of the tile. Using the smooth part of the trowel, apply a fine layer of product, pressing down onto the substrate in order to ensure maximum adhesion. Press down each tile into the ribbed adhesive to allow for maximum coverage of the surface.

To guarantee structural adhesion it is necessary

Instructions for use

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.

Respect structural, fractionizing, and perimeter joints present in the substrates. Abide by local existing provisions when creating elastic expansion joints.

Standard UNI 11493 – joints must divide the surface into areas of the following sizes:

- $\approx 10 \text{ m}^2$ in external use
- $\approx 25 \text{ m}^2$ in internal use

→ Cleaning

Clean the tools and any residues of H40 Extreme from the coated surfaces with water while the adhesive is still fresh. Once hardened, the adhesive can only be removed mechanically or using Fuga-Shock cleaner.

Special notes

→ Materials and special substrates

- Marble–natural stones and Recomposed materials: check for the presence of any really consistent traces of rock dust created during cutting, and remove them if found.
- Special substrates: adherent and floating polymer sheets, liquid bitumen and tar-based sheets or membranes require application of a laying screed on top.
- H40 Extreme is suitable for laying on floors on screedless underfloor heating systems composed of panels with a core in pre-shaped insulating material coupled on the surface with a heat-conducting aluminium sheet. H40 Extreme will be applied directly on the aluminium sheet without the use of primer after cleaning the aluminium itself from dust or debonding agents.

→ Special applications

- Facades (UNI 11493 - point 7.13.7): 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 cm side. Always apply a layer of adhesive on the substrate and on the back of the material (double-spread technique).
- Panelling insulation systems: prior to the application, carry out a reinforced render cycle, mechanically fixed to the substrate, with a minimum thickness of 10 mm.

Certificates and marks



* 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).

Abstract

High-performance laying of porcelain tiles, ceramic tiles, mosaic, marble, granite and natural stone on deformable substrates will be carried out using a highly deformable and workable hybrid gel adhesive that has been tested under the most extreme working conditions, compliant with standard EN 12004 – class R2 T, GreenBuilding Rating 2, GT-3 classified, such as H40 Extreme by Kerakoll Spa. The substrate must be clean, free from any loose, flaky parts and adequately matured. A ____ mm toothed spreader must be used for an average coverage of \approx ____ kg/m^2 . Create elastic fractionizing joints every ____ m^2 . Tiles must be laid with joints of ____ mm width.

Technical Data compliant with Kerakoll Quality Standard		
Appearance	Part A white paste / Part B white paste	
Mixing ratio	Part A : Part B = 8.6 : 1.4	
Pack	monopack 10 kg (8,6 +1,4 kg)	
Shelf life	≈ 24 months from production in the original sealed packaging	
Warning	Protect from frost. Avoid direct exposure to sunlight and sources of heat.	
Thickness	from 2 to 15 mm	
Temperature range for application	from +5 °C to +35 °C	UNI 11493 - 8.3
Pot life:		
- +23 °C	≈ 110 min.	
- +35 °C	≈ 80 min.	
Open time (BIII tile):		
- +23 °C	≈ 180 min.	
- +35 °C	≈ 90 min.	
Correction time (BIII tile):		
- +23 °C	≥ 120 min.	
- +35 °C	≥ 60 min.	
Foot traffic/grouting of joints (BIa tile):		
- +23 °C	≈ 4 hrs	
- +5 °C	≈ 15 hrs	
Ready for use at +23 °C / +5 °C (BIa tile)		
- light foot traffic	≈ 6 – 20 hrs	
- heavy traffic	≈ 12 – 24 hrs	
- swimming pools (+23 °C)	≈ 3 days	
Coverage	≈ 1.45 kg/m² per mm of thickness	

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		
HIGH-TECH		
Shear adhesion after 7 days	$\geq 7,5 \text{ N/mm}^2$	EN 12004-2
Shear adhesion after water immersion	$\geq 5 \text{ N/mm}^2$	EN 12004-2
Shear adhesion after thermal shock	$\geq 5,5 \text{ N/mm}^2$	EN 12004-2
Shear adhesion after immersion in chlorine water	$\geq 3 \text{ N/mm}^2$	EN 12004-2
Adhesion test according to EN 12004 for Class C (cement based) adhesives		
Tensile adhesion (concrete/porcelain tile):		
- after 6 hrs	$\geq 2,4 \text{ N/mm}^2$	EN 12004-2
- after 28 days	$\geq 4,5 \text{ N/mm}^2$	EN 12004-2
Durability test:		
- adhesion after heat ageing	$\geq 4 \text{ N/mm}^2$	EN 12004-2
- adhesion after water immersion	$\geq 2,5 \text{ N/mm}^2$	EN 12004-2
- adhesion after freeze-thaw cycles	$\geq 2 \text{ N/mm}^2$	EN 12004-2
- adhesion after straining cycles	$\geq 2 \text{ N/mm}^2$	SAS Technology
Vertical slip	$\leq 0,5 \text{ mm}$	EN 12004-2
Transversal deformation	$\geq 50 \text{ mm}$	EN 12004-2
Flexibility test according to GT method:		
- torsional moment (eccentric shear on 5x5 cm sample)	$\geq 2,5 \text{ KN}$	
- bending moment (eccentric traction on 5x5 cm sample)	$\geq 0,6 \text{ KN}$	
classification	GT-3	GT method
Working temperature	from -40 °C to +90 °C	
Conformity	R2 T	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 against direct rain for at least 12 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
- for laying on cement-polymer waterproofing coverings, check the suitability on the producer's technical data sheet
 - do not use in direct contact with polystyrene (Styrofoam, EPS, XPS, etc.)
 - guarantee a full-bed in all external laying operations
 - if necessary, ask for the safety data sheet
 - for any other issues, contact Kerakoll Technical Customer Service:
+ 39 0536.811.516
www.kerakoll.com/contatti



The Rating classifications refer to the GreenBuilding Rating Manual 2012. This information was last updated in January 2025 (ref. GBR Data Report – 01.25); please note that additions and/or amendments 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 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.