

Keratech® Eco

Certified, normal-setting, eco-friendly self-levelling mineral product for the high-performance correction of irregular, uneven substrates, ideal for use in GreenBuilding. Low CO₂ emissions and very low volatile organic compound emissions, recyclable as an inert material at the end of its life.

Keratech® Eco develops high levels of resistance to the solvent action of water, making it possible to correct large surfaces, also on external floors or those in contact with humidity to allow them to be overlaid with flooring using eco-friendly adhesives.



GREENBUILDING RATING®

Keratech® Eco

- Category: Inorganic Mineral Products
- Class: Self-levelling mineral products with HDE technology
- Rating: Eco 4

Natural mineral content 70%			CO ₂ /kg emission 181 g	Very low VOC emissions	Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

PRODUCT STRENGTHS

- Internal, external
- Thickness from 1 to 10 mm
- HDE technology with extended flow
- High dimensional stability and long-lasting performance
- High mechanical resistance
- Long self-levelling time, also suitable for large surface areas
- Suitable for laying ceramic tiles, porcelain tiles, natural stone and resilient materials using adhesives



ECO NOTES

- Formulated with locally-sourced minerals meaning lower greenhouse gas emission during transportation
- Contains hypoallergenic cements for added operator safety

AREAS OF USE

Use

Self-levelling correction and smoothing of irregular and uneven substrates with normal setting and compensated shrinkage. Thickness from 1 to 10 mm.

Compatible adhesives:

- mineral adhesives with SAS technology, single and two-component organic mineral adhesives
- reactive-epoxy and polyurethane, single and two-component cement-based adhesives, dispersed in water or solvent solutions

Covering materials:

- porcelain tiles, ceramic tiles, klinker and cotto of all types and formats
- natural stone, recomposed materials, marble
- textiles, rubber, PVC, linoleum
- raised floors

Substrates:

- mineral screeds made with Keracem® Eco Prontoplus, Rekord® Eco and Keracem® Eco as a binder or pre-mixed
- cement-based screeds
- residual traces of cement-based adhesives

Internal and external flooring in domestic, commercial and industrial applications.

Do not use

On highly flexible substrates subjected to constant rising damp or on plastic or resilient materials, varnishes, metals or wood.

* 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).

INSTRUCTIONS FOR USE

Preparation of substrates

In general, substrates must be free of dust, oil and grease, free from any moisture rising, with no loose, flaky or imperfectly anchored parts such as residues of cement, lime, paint coatings and adhesives, which must be completely removed. The substrate must be stable, non-deformable, with no cracks and have already completed the hygrometric shrinkage curing period.

Low-absorption surfaces: smooth surfaces with very low absorption or which are completely non-absorbent, such as ceramic tiles, marble floor tiles, epoxy paints, residues of oxidised adhesives and smoothed concrete layers which are compact and properly anchored, must be prepared by applying Keragrip Eco, an eco-friendly adhesion promoter, following the instructions for use. If necessary, also use in advance the mechanical abrasion. Any substances used for surface treatment, such as wax or parting compounds, must be removed mechanically or using specific chemical products.

High-absorption substrates: on substrates which are compact but very absorbent, apply Primer A Eco or Primer AD Eco to reduce and regulate the level of absorption. In the case of absorbent substrates with weak consistency, apply Keradur Eco or Primer AD Eco. Respect the indicated waiting time before carrying out correction of the surface with a self-levelling product.

Preparation

Prepare Keratech® Eco in a clean container by pouring in $\approx \frac{3}{4}$ of the water required. Gradually add Keratech® Eco to the water in the container, mixing the paste with a low-rev ($\approx 400/\text{min.}$) helicoidal or trapezoidal agitator. Add water until a fluid, smooth, lump-free mortar is obtained. The amount of water to be added, indicated on the packaging, is an approximate guide. Adding extra water does not improve the workability and may cause shrinkage in the plastic phase of drying and result in less effective final performance.

Application

Apply Keratech® Eco with a smooth spreader. Press the product down to ensure maximum adhesion to the substrate. After that, the thickness can be adjusted as required. Use a roller to remove air bubbles contained in the self-levelling product. Application with pumps for plasters enables homogeneous correcting in a very short time.

Cleaning

Residual traces of Keratech® Eco can be removed from tools and machinery using water before the product hardens.

SPECIAL NOTES

Joints: it is advisable to desolidarise the self-levelling surface around the perimeter, laying the Tapetex Slim compressible tape along the whole perimeter of the room, on the walls and on any other vertical elements protruding from the supporting layer. Large and continuous surface areas need to be fractionized as soon as they can withstand foot traffic so to create areas $< 50 \text{ m}^2$ with 8 m maximum individual size. All the joints located in the substrate must be respected.

Special substrates: anhydrite screeds must be dry and sanded as specified in the manufacturer's instructions, then waterproofed with water-based, eco-friendly surface isolation Primer A Eco. Application of a further correction layer must be carried out as soon as the previous layer is ready for foot traffic ($\approx 12 \text{ hrs}$ at $+23 \text{ }^\circ\text{C}$ and 50% R.H.) by laying the eco-friendly adhesion promoter Keragrip Eco.

ABSTRACT

Certified, high-performance correction of internal and external substrates with a maximum thickness of 10 mm, carried out using an eco-friendly, normal setting, HDE - High Dispersing Effect technology, mineral self-levelling product, compliant with standard EN 13813, class CT - C35 - F10, GreenBuilding Rating® Eco 4, such as Keratech® Eco by Kerakoll Spa, suitable for subsequent laying of ceramic tiles, resilient materials and textiles ≈ 3 days after application at $+23 \text{ }^\circ\text{C}$ 50% R.H. Prepare, clean and make the substrate dimensionally stable first, then apply the product with a smooth spreader. Average coverage: $\approx 1.6 \text{ kg/m}^2$ per mm of thickness created.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	Pre-mixed	
Specific weight	$\approx 1,14 \text{ kg/dm}^3$	UEAtc/CSTB 2435
Mineralogical nature of inert material	silicate - crystalline carbonate	
Grading	$\approx 0 - 650 \mu\text{m}$	UNI 10111
Shelf life	≈ 12 months in the original packaging in dry environment	
Pack	25 kg bags	
Mixing water	$\approx 5 \text{ l} / 1 \times 25 \text{ kg bag}$	EN 12706
Specific weight of the mixture	$\approx 2,04 \text{ kg/dm}^3$	UNI 7121
Pot life	$\geq 30 \text{ min.}$	
Self levelling time	$\geq 30 \text{ min.}$	CSTB 2893-370
Temperature range for application	from $+5 \text{ }^\circ\text{C}$ to $+35 \text{ }^\circ\text{C}$	
Maximum thickness	from 1 mm to 10 mm	
Foot traffic	$\approx 12 \text{ hrs}$	
Waiting time before laying	≈ 3 days	
Coverage	$\approx 1.6 \text{ kg/m}^2$ per mm of thickness	

Values taken at a temperature of $+23 \text{ }^\circ\text{C}$, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site, i.e. temperature, ventilation and absorbercy level of the substrate.

PERFORMANCE

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

Conformity EC 1-R plus GEV-Emicode GEV Certified 2952/11.01.022

HIGH-TECH

Adhesion to concrete after 28 days $\geq 2 \text{ N/mm}^2$ EN 13892-8

Resistance to:

- compressive strength after 28 days $\geq 35 \text{ N/mm}^2$ EN 13892-2

- flexural after 28 days $\geq 10 \text{ N/mm}^2$ EN 13892-2

- abrasion after 28 days $\leq 250 \text{ mm}^3$ EN 12808-2

Resistance to parallel strain on laying after 28 days $\geq 2 \text{ N/mm}^2$ UNI 10827

Surface hardness after 28 days $\geq 90 \text{ N/mm}^2$ EN 13892-6

Conformity CT - C35 - F10 EN 13813

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 Keratech® Eco to correct substrate irregularities greater than 10 mm
- do not add other binders or additives to the mixture
- low temperatures and high relative humidity lengthen the drying time and can saturate the environment; this may have a negative effect on the quality of the surface of the self-levelling product
- an excessive quantity of water will reduce strength and the drying time
- before laying hardwood floors and resilient materials, check residual moisture with a calcium carbide hygrometer
- protect from direct sunlight and currents of air for the first 24 hrs
- respect the elastic joints present in the substrate
- if necessary, ask for the safety data sheet
- for unstable wooden types, particular substrates and other conditions, please contact the Kerakoll Worldwide Global Service +39 0536 811 516 - globalservice@kerakoll.com

The Eco and Bio classifications refer to the GreenBuilding Rating® Manual 2012. This information was last updated in June 2016 (ref. GBR Data Report - 07.16); 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.



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