

Keratech® Eco R30

Certified, extra-rapid hardening, eco-friendly, self-levelling mineral product for the high-performance, high-thickness correction of irregular 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 R30 develops a high degree of workability guaranteeing an ideal surface for the subsequent laying of ceramic tiles and natural stone using eco-friendly mineral adhesives.



GREENBUILDING RATING®

Keratech® Eco R30

- Category: Inorganic mineral products
- Preparation of the substrates
- Rating: Eco 4

	Natural mineral content 85%		CO ₂ /kg emission 95 g	Very low VOC emissions	Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

PRODUCT STRENGTHS

- For internal use
- Thicknesses from 3 to 30 mm
- Approved for marine use
- Long self-levelling time, also suitable for large surface areas
- Easy to apply also with continuous mixes
- HDE technology with extended flow
- Suitable for laying ceramic tiles, porcelain tiles, natural stone, hardwood floors and resilient materials using adhesives
- High dimensional stability and long-lasting performance

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 of uneven floors, with extra-rapid setting and drying and compensated shrinkage. Thicknesses from 3 to 30 mm. Interior floors. For use in domestic, commercial and industrial applications and on heat-radiant slabs.

Compatible adhesives:

- gel 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
- hardwood floors, textiles, rubber, PVC, linoleum
- protective resins for concrete
- raised floors

Suitable for use on mineral screeds or screeds made using Keracem® Eco Pronto or Keracem® Eco as binder or ready-for-use premixed products, cement-based screeds, concrete and those with well anchored residual traces of cement-based additives; underfloor heating systems.

Do not use
Do not use in external applications, on highly flexible substrates subject to thermal expansion, or on wet surfaces or substrates subject to continuous moisture rising.

Keratech® Eco R30 Code: F113 2018/08-UK

INSTRUCTIONS FOR USE

Preparation of substrates

Substrates must be free from dust, oil and grease, free from any rising damp, with no loose, flaky material. The substrate must be stable, non-deformable, without cracks and have already completed the curing period of hygrometric shrinkage. Smooth substrates with very low absorption or which are completely non-absorbent, such as ceramic tiles, marble floor tiles, epoxy paints, vinyl glue residues of adhesives and smoothed concrete coatings which are compact and properly anchored, must be prepared by means of mechanical abrasion or by application of Keragrip Eco, a professional, single-component, water-base adhesion promoter, following the instructions for use. Any substances used for surface treatment, such as wax or parting compounds, must be removed mechanically or using specific chemical products. On screeds which are compact but very absorbent apply Primer A Eco water-base, eco-friendly surface isolation product, in order to reduce and regulate the level of absorption and to avoid the formation of air bubbles in the self-levelling product. Respect the indicated waiting time before carrying out correction of the surface with a self-levelling product. The side joints must be protected with a suitable deformable band to prevent leakage of material.

Instruction for use

Prepare Keratech® Eco R30 in a clean container, first of all pouring in a quantity of water equal to approximately $\frac{3}{4}$ of the amount required. Gradually add Keratech® Eco R30 to the water in the container, mixing the paste with a suitable low-rev ($\approx 400/\text{min.}$) electric mixer. Then add more water until a fluid, smooth, lump-free mortar is obtained. Keratech® Eco R30 is immediately ready for use. The amount of water indicated on the packaging is merely an indication. Adding extra water does not improve the workability of the self-levelling product, and may cause shrinkage during drying and result in less effective final performance with a reduction in surface hardness, compressive strength and adhesion to the substrate. Excess water causes the colour to change to orange. Keratech® Eco R30 is applied with a smooth trowel. Application with plaster pumps allows the user to very quickly achieve a smooth high-thickness finish for large areas. Using a cylindrical section, lightened levelling bar helps the self-levelling product to create a smooth surface even when applied in great thicknesses. Application of a further substrate correction layer must be carried out as soon as the previous layer is ready for foot traffic (≈ 3 hrs) by laying Keragrip Eco, a eco-friendly single-component, water-base adhesion promoter, following the instructions for use. After this interval, it is necessary to wait $\approx 5 - 7$ days, depending on the thickness created, and then apply Keragrip Eco, after which the subsequent applications may be carried out. In the case of low temperatures and high humidity levels it is recommended that the room be kept well aired after application.

Tools

Electrical mixer, spreader and trowel, lightened levelling bar. Wash tools with water before the product hardens.

SPECIAL NOTES

Large continuous surfaces: continuous, extensive surfaces need to be fractionized with elastic joints so as to create areas of $\approx 50 \text{ m}^2$. Before laying the product, it is advisable to apply eco-friendly adhesion promoter Keragrip Eco to improve adhesion to the substrate.

Special substrates: anhydrite screeds must be dry and sanded as specified in the manufacturer's instructions, then waterproofed with eco-friendly, water-based, surface insulation Primer A Eco, following the instructions for use. For subsequent laying of hardwood floors, create a smooth finish with thickness $\geq 3 \text{ mm}$.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	Pre-mixed, red-brown colour	
Apparent volumetric mass	≈ 1.2 kg/dm ³	UEAtc/CSTB 2435
Mineralogical nature of inert material	Silicate - crystalline carbonate	
Grading	≈ 0 – 1.5 mm	UNI 10111
Shelf life	≈ 6 months in the original packaging in dry environment	
Pack	25 kg bags	
Mixing water	≈ 4 – 4.5 ℓ / 1 x 25 kg bag	EN 12706
Specific weight of the mixture	≈ 2.15 kg/dm ³	UNI 7121
Pot life	≥ 45 min.	
Self levelling time	≥ 40 min.	CSTB 2893-370
Temperature range for application	from +5 °C to +30 °C	
Maximum thickness	from 3 mm to 30 mm	
Foot traffic (10 mm)	≈ 3 hrs	
Waiting time before laying (10 mm):		
- ceramic tiles	≈ 12 hrs	
- hardwood floors	≈ 24 hrs	
Coverage	≈ 1.8 kg/m ² 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.

PERFORMANCE

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

Conformity	EC 1-R plus GEV-Emicode	GEV certified 968/11.01.02
HIGH-TECH		
Adhesion to concrete after 28 days	≥ 1.5 N/mm ²	EN 13892-8
Resistance to:		
- compressive after 7 h	≥ 10 N/mm ²	EN 13892-2
- compressive after 7 days	≥ 25 N/mm ²	EN 13892-2
- compressive strength after 28 days	≥ 30 N/mm ²	EN 13892-2
- flexural after 28 days	≥ 6 N/mm ²	EN 13892-2
- abrasion after 24 hrs	≤ 200 mm ³	EN 12808-2
- parallel strain on laying level after 28 days	≥ 2 N/mm ²	UNI 10827
Surface hardness after 28 days	≥ 90 N/mm ²	EN 13892-6
Conformity	CT – C30 – F6	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 R30 to correct substrate irregularities greater than 30 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 12 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 01527 578000 – info@kerakoll.co.uk

The Eco and Bio classifications refer to the GreenBuilding Rating® Manual 2012. This information was last updated in August 2018 (ref. GBR Data Report - 08.18); 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 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.