

Keratech® Eco R10

Certified, extra-rapid hardening, eco-friendly, self-levelling mineral product for the high-performance, smooth finishing 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 R10 rapidly develops a smooth finish and perfectly even surface with high levels of mechanical resistance, guaranteeing the subsequent laying of all types of coverings.



GREENBUILDING RATING®

Keratech® Eco R10
 - Category: Inorganic Mineral Products
 - Class: Self-levelling mineral products with HDE technology
 - Rating: Eco 4

	 Recycled Recycled Mineral ≥ 20%	 CO ₂ ≤ 290 g/kg	 Low Emission Indoor Air Quality	 Recyclable
	✓ Natural mineral content 77%	✓ CO ₂ /kg emission 140 g	✓ Very low VOC emissions	✓ Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

PRODUCT STRENGTHS

- For internal use
- Thickness from 1 to 10 mm
- Long self-levelling time and extra-rapid hardening
- 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 hypo-allergenic cements for added operator safety

AREAS OF USE

Use
 Self-levelling correction of uneven floors, with extra-rapid setting and drying and compensated shrinkage. Thickness from 1 to 10 mm. Interior floors. For use in domestic, commercial and industrial applications and on heat-radiant slabs.

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

Before laying:

- porcelain and ceramic tiles, klinker, cotto and natural stone of all types and formats
- recomposed materials, hardwood floors,
- textiles, rubber, PVC, linoleum, protective resins for concrete

Suitable for use on mineral screeds made using Rekord Eco 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.

00142Keratech® Eco R10 Code: F108 2011/08 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 R10 in a clean container, first of all pouring in a quantity of water equal to approximately 3/4 of the amount required. Gradually add Keratech® Eco R10 to the water in the container, mixing the paste with a suitable low-rev (≈ 400 /min.) electric mixer. Then add more water until a fluid, smooth, lump-free mortar is obtained. Keratech® Eco R10 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.

Keratech® Eco R10 is applied with a smooth trowel. Application with plaster pumps allows the user to very quickly achieve a smooth finish for large areas. Use a roller to remove air bubbles contained in the self-levelling product and produce a smooth surface. Application of a further substrate correction layer must be carried out as soon as the previous layer is ready for foot traffic (≈ 2 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 ≈ 5 days, depending on the thickness created, and then apply Keragrip Eco, after which the subsequent applications may be carried out. In the event of low temperatures and high levels of humidity it is recommended that the area be kept aired after application.

Tools

Electrical mixer, spreader and trowel, lightened levelling bar, roller to remove air bubbles. Wash tools with water before the product hardens.

SPECIAL NOTES

Anhydrite screeds must be vacuum cleaned and dry according to the manufacturer's instructions. Then apply Primer A Eco concentrated, water-base surface isolation product, following the instructions for use. For subsequent laying of hardwood floors, create a smooth finish with thickness ≥ 3 mm.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	Pre-mixed, red-brown colour	
Apparent volumetric mass	$\approx 1,15 \text{ kg/dm}^3$	UEAtc/CSTB 2435
Mineralogical nature of inert material	silicate - crystalline carbonate	
Grading	$\approx 0 - 650 \mu\text{m}$	UNI 10111
Shelf life	≈ 6 months in the original packaging in dry environment	
Pack	Bags 25 kg	
Mixing water	$\approx 6,2 \text{ l} / 1 \text{ bag } 25 \text{ kg}$	EN 12706
Specific weight of the mixture	$\approx 2,02 \text{ kg/dm}^3$	UNI 7121
Pot life	$\geq 25 \text{ min.}$	
Self levelling time	$\geq 20 \text{ min.}$	CSTB 2893-370
Temperature range for application	from $+5 \text{ }^\circ\text{C}$ to $+30 \text{ }^\circ\text{C}$	
Maximum thickness	from 1 mm to 10 mm	
Foot traffic	$\approx 2 \text{ hrs}$	
Waiting time before laying	$\approx 12 \text{ hrs}$	
Coverage	$\approx 1,6 \text{ kg/m}^2$ per mm of thickness	

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, i.e. temperature, ventilation and absorbency level of the substrate.

PERFORMANCE

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

Conformity	EC 1 plus GEV-Emicode	GEV certified 963/11.01.02
HIGH-TECH		
Adhesion to concrete after 28 days	≥ 1,5 N/mm ²	EN 13892-8
Resistance to		
- compressive after 7 h	≥ 15 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	≥ 2,5 N/mm ²	UNI 10827
Surface hardness after 28 days	≥ 50 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 R10 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 humidity 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 consult the Kerakoll Worldwide Global Service

The Eco and Bio classifications refer to the GreenBuilding Rating Manual 2011. This information was last updated in November 2011 (ref. GBR Data Report - 10.11); 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.