



Keratech® Eco Flex

Extra-rapid hardening, eco-friendly, self-levelling mineral product for the high-performance and high-deformability 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 Flex develops a high degree of flexibility and dimensional stability, making it ideal to correct deformable substrates, gives superior workability and hardness. A self-levelling product suitable for the subsequent laying of all types of coverings.



Product Strengths

- For internal use
- Thickness from 1 to 15 mm
- HDE technology with extended flow
- Suitable for laying ceramic tiles, porcelain tiles, natural stone and resilient materials using adhesives
- Ideal for laying hardwood floors using adhesives
- High dimensional stability and long-lasting performance
- Extra-rapid hardening
- High flexural strength with Advanced Flex Fiber™
- High mechanical resistance



GreenBuilding Rating

	 Mineral ≥ 60%	 Recycled Mineral ≥ 30%	 ≤ 250 g/kg	 Low Emission	 Recyclable
	 Natural mineral content 69%		 CO ₂ /kg emission 118 g	 Very low VOC emissions 50 µg/m ³	 Can be recycled as inert material

Keratech® Eco Flex

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

Areas of use

Use

Self-levelling correction of uneven floors, with extra-rapid setting and drying and compensated shrinkage. Thickness from 1 to 15 mm. Interior floors in residential, commercial and industrial buildings and on heat-radiant slabs. Compatible with all cement-based, reactive-epoxy and polyurethane two-component adhesives, dispersed in water 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 or 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; under-floor heating.

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.

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, 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.

Hardwood floors and solid wood floorboards must be smoothed, unanchored or highly deformable wooden substrates must be anchored and treated with Keragrip Eco. 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 Flex 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 Flex 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 Flex 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 Flex 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 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, 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.

Suitable for use on radiating panels with a thickness ≤ 12 mm.

Technical data compliant with Kerakoll Quality Standard

Appearance	Pre-mixed, red-brown colour	
Apparent volumetric mass	$\approx 1,19 \text{ kg/dm}^3$	UEAtc/CSTB 2435
Mineralogical nature of inert material	silicate - crystalline carbonate	
Grading	$\approx 0 - 1000 \mu\text{m}$	UNI 10111
Shelf life	≈ 6 months in the original packaging in dry environment	
Pack	Bags 25 kg	
Mixing water	$\approx 5,3 \text{ l} / 1 \text{ bag } 25 \text{ kg}$	EN 12706
Specific weight of the mixture	$\approx 1,96 \text{ kg/dm}^3$	UNI 7121
Pot life	≥ 30 min.	
Self levelling time	≥ 20 min.	CSTB 2893-370
Temperature range for application	from $+5 \text{ }^\circ\text{C}$ to $+30 \text{ }^\circ\text{C}$	
Minimum thickness	≥ 1 mm	
Maximum thickness obtainable	≤ 15 mm	
Foot traffic	≈ 2 hrs	
Waiting time before laying	ceramic tiles ≈ 12 hrs / parquet ≈ 24 hrs	
Coverage	$\approx 1,5 \text{ kg/m}^2$ 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 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	≥ 18 N/mm ²	EN 13892-2
- Compressive strength after 28 days	≥ 20 N/mm ²	EN 13892-2
- flexural after 28 days	≥ 7 N/mm ²	EN 13892-2
- abrasion after 24 hrs	≤ 150 mm ³	EN 12808-2
- parallel strain on laying level after 28 days	≥ 3,5 N/mm ²	UNI 10827
Transversal deformation	≥ 2,5 mm	UNI 12002
Surface hardness after 28 days	≥ 45 N/mm ²	EN 13892-6
Conformity	CT - C20 - F7	EN 13813
	EC 1 GEV-EMICODE	Cert. GEV 969/11.01.02

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

- do not use Keratech® Eco Flex to correct substrate irregularities greater than 15 mm
- Do not add other binders or additives to the mixture
- Low temperatures and high relative humidity lengthen drying times, whereas high temperatures shorten them. Excessively high or low temperatures may have a negative effect on the quality of the surface
- 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 further information please consult Kerakoll Worldwide Global Service +39 0536 811 516 - globalservice@kerakoll.com

This information was last updated in January 2011; 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.