

# Keralevel® Eco LR

**Certified, extra-rapid hardening, eco-friendly, mineral levelling product for the high-performance, high-thickness correction of irregular substrates, ideal for use in GreenBuilding. Low CO<sub>2</sub> emissions and very low volatile organic compound emissions. Recyclable as an inert material at the end of its life.**

Keralevel® Eco LR develops a perfect thixotropic balance which is ideal to correct walls that are out of plumb or irregular, and uneven floors without holding up site schedules and subsequent laying of floor/wall coverings.



## GREENBUILDING RATING®

### Keralevel® Eco LR

- Category: Inorganic Mineral Products
- Class: Mineral Levelling Products
- Rating: Eco 4

	Natural mineral content 61%		CO <sub>2</sub> /kg emission 217 g	Very low VOC emissions	Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

## PRODUCT STRENGTHS

- Internal, external
- Thicknesses from 1 to 25 mm
- Prolonged workability, also suitable for large surface areas
- High dimensional stability and long-lasting performance
- High mechanical resistance
- Suitable for laying ceramic tiles, porcelain tiles, natural stone, hardwood floors and resilient materials using adhesives



## ECO NOTES

- Formulated with locally-sourced minerals meaning lower greenhouse gas emission during transportation
- Can be recycled as mineral inert material, avoiding waste disposal costs and environmental impact

## AREAS OF USE

### Use

Levelling correction of irregular and uneven substrates, with rapid setting and drying and compensated shrinkage. Thicknesses from 1 to 25 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
- hardwood flooring, rubber, PVC, linoleum, textiles
- varnishes and paints

### Substrates:

- cement plasters and cement-lime mortar
- mineral screeds made with Keracem® Eco Prontoplus, Rekord® Eco and Keracem® Eco as a binder or pre-mixed
- cement-based screeds
- prefabricated concrete or fresh concrete castings
- walls in concrete blocks or cellular concrete
- residual traces of cement-based adhesives

Flooring and walls, for internal and external use, in domestic, commercial and industrial applications and on heat-radiant slabs.

### Do not use

On high flexible substrates subject to thermal expansion, plasterboard, gypsum; on wet surfaces or substrates subject to moisture rising or which are in continuous contact with water.

\* 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, without cracks and have already completed the curing period of hygrometric shrinkage.

**Low-absorption substrates:** smooth substrates with very low absorbency level or which are completely non-absorbent, such as ceramic tiles, marble floor tiles, epoxy and wall paints, residual traces of oxidised 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, the water-based, eco-friendly adhesion promoter, following the instructions for use and after having carried out thorough cleaning of the surface. Any substances used for surface treatment, such as wax or parting compounds, must be removed mechanically or using specific chemical products.

**High-absorbency substrates:** on screeds and plasters which are compact but very absorbent, first Primer A Eco, eco-friendly, water-based surface isolation, in order to reduce and regulate the level of absorption. In the case of absorbent substrates with weak consistency, apply Keradur Eco eco-friendly, water-based deep consolidant. Respect the indicated waiting time before carrying out correction of the surface with a levelling product.

### Preparation

Prepare Keralevel® Eco LR in a clean container, first of all pouring in a quantity of water equal to approximately ¾ of the amount required. Gradually add Keralevel® Eco LR to the container, mixing the paste with a low-rev (≈ 400/min.) helicoidal agitator. Add more water until the desired consistency is obtained. The mixture must be of smooth consistency and without any lumps. For best results, and to mix larger quantities of levelling product, a stirring device with vertical blades and slow rotation is recommended. Specific polymers with high-dispersion properties ensure that Keralevel® Eco LR is immediately ready for use. The amount of water to be added, indicated on the packaging, is an approximate guide. It is possible to obtain mixtures with consistency of variable thixotropy according to the application to be made. Adding extra water does not improve the workability of the product, and may cause shrinkage in the plastic phase of drying and result in less effective final performance with a reduction in surface hardness, compressive strength and adhesion to the substrate.

### Application

Keralevel® Eco LR is generally applied with a smooth trowel. If necessary, the high level of thixotropy of the mixture allows for high levelling thicknesses with just one coating. It is advisable to press down hard with the trowel during application so as to regulate the absorption of water and obtain maximum adhesion to the substrate. After that, the thickness can be adjusted as required. In the case of high thicknesses and extensive surface areas it is advisable to create levelling layers, using Keralevel® Eco LR, and then proceed to apply with a trowel and flatten for final correction. The appearance of the surface finish may vary depending on whether a smooth steel spreader or a sponge spreader has been used for application. For subsequent laying of ceramic tiles it is always advisable to obtain a roughened, porous surface. If an additional correction layer is required, it must be applied as soon as the previous layer is ready for foot traffic (≈ 2 hrs at 23 °C and 50% R.H.) but after the application of Keragrip Eco eco-friendly adhesion promoter, following the instructions for use. After this time, it is necessary to wait ≈ 5-7 days, depending on the thickness created, then apply Keragrip Eco and overlay.

### Cleaning

Residual traces of Keralevel® Eco LR can be removed from tools using water before the product hardens.

## SPECIAL NOTES

**Deformable substrates:** in the case of timber substrates or which in any case are liable to movement, apply Keragrip Eco, the eco-friendly adhesion promoter to a clean supporting surface, following the instructions for use. Attach an anti-alkali mesh with 4x5 mm mesh size and mix Keralevel® Eco LR with Keraplast Eco 337 the eco-friendly, water-based latex instead of water, until the required consistency has been obtained.

**Large continuous surfaces:** continuous, extensive surfaces need to be fractionized with elastic joints so as to create areas of ≈ 50 m². Before laying, it is advisable to apply Keragrip Eco, the eco-friendly adhesion promoter to improve adhesion to the substrate and insert an anti-alkali mesh with 4x5 mm mesh size.

**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, following the instructions for use. For subsequent laying of hardwood floors, create a smooth finish with thickness ≥ 3 mm.

## ABSTRACT

*Certified, high-performance correction of substrates from 1 to 25 mm thickness must be carried out using a fast-acting, high thickness, eco-friendly mineral levelling product, such as Keralevel® Eco LR by Kerakoll Spa, compliant with EN 13813 class CT – C20 – F6, Green-Building Rating® Eco 4, suitable for subsequent laying of tiles after ≈ 2 hrs and for laying of natural stone, hardwood floors and resilient materials ≈ 12 hrs after application, at 23 °C 50% R.H. Apply the product using a smooth spreader on the previously prepared, clean and dimensionally stable substrate and finish with a rigid float. Average coverage: ≈ 1.5 kg/m² per mm of thickness created.*

## TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	Pre-mixed	
Apparent volumetric mass	≈ 1,45 kg/dm <sup>3</sup>	UEAtc/CSTB 2435
Mineralogical nature of inert material	silicate - crystalline carbonate	
Grading	≈ 0 - 600 µm	UNI 10111
Shelf life	≈ 6 months in the original packaging in dry environment	
Pack	Bags 25 kg	
Mixing water	≈ 6 ℓ / 1 25 kg bag	
Specific weight of the mixture	≈ 1,62 kg/dm <sup>3</sup>	UNI 7121
Pot life	≥ 20 min.	
Temperature range for application	from +5 °C to +30 °C	
Maximum thickness	from 1 mm to 25 mm	
Foot traffic	≈ 2 hrs	
Waiting time before laying:		
- ceramic tiles, terracotta	≈ 2 hrs	
- hardwood floors, resilient materials and natural stone		≈ 12 hrs
Coverage	≈ 1,5 kg/m <sup>2</sup> per mm of thickness	

*Values taken at +20 °C, 65% 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 2951/11.01.02
<b>HIGH-TECH</b>		
Adhesion to concrete after 28 days	≥ 1 N/mm <sup>2</sup>	EN 13892-8
Resistance to:		
- Compressive strength after 28 days	≥ 20 N/mm <sup>2</sup>	EN 13892-2
- flexural after 28 days	≥ 6 N/mm <sup>2</sup>	EN 13892-2
- abrasion after 28 days	≤ 250 mm <sup>3</sup>	EN 12808-2
Surface hardness after 28 days	≥ 30 N/mm <sup>2</sup>	EN 13892-6
Conformity	CT - C20 - F6	EN 13813

*Values taken at +20 °C, 65% 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 Keralevel® Eco LR for levelling purposes or for the correction of substrate irregularities greater than 25 mm
- Do not add other binders or additives to the mixture
- low temperatures and high relative humidity lengthen drying times
- 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 any other issues, contact the Kerakoll Worldwide Global Service - [globalservice@kerakoll.com](mailto:globalservice@kerakoll.com)

The Eco and Bio classifications refer to the GreenBuilding Rating Manual 2012. This information was last updated in September 2012 (ref. GBR Data Report - 10.12); please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see [www.kerakoll.com](http://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.

Kerakoll  
Quality  
System

ISO 9001  
CERTIFIED

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