

Keralevel® Eco LR

Certified, rapid hardening, eco-friendly, mineral levelling 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, contains locally-sourced recycled raw materials. 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
- Preparation of the substrates
- Rating: Eco 5

	✓	✓	✓	✓	✓
	Natural mineral content 61%	Recycled mineral content 31%	CO ₂ /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
- Contains recycled minerals thereby reducing the damage to the environment caused by extracting pure raw materials
- Can be recycled as mineral inert material, avoiding waste disposal costs and environmental impact

AREAS OF USE

Use
 Levelling correction of uneven substrates, with extra-rapid setting and drying and compensated shrinkage. Thicknesses from 1 to 25 mm. 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

Before laying:

- porcelain and ceramic tiles, klinker, cotto and natural stone of all types and formats
- agglomerate materials,
- hardwood floors
- textiles, rubber, PVC, linoleum, paints.

Suitable for use on cement-based plasters or lime and cement mortars, 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 residual traces of cement-based adhesives.

Do not use
 Do not use 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, 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, oxidised 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 and plasters which are compact but very absorbent apply Primer A Eco, a eco-friendly, water-based, surface insulation product, in order to reduce and regulate the level of absorption. Respect the indicated waiting time before carrying out correction of the surface with a levelling product.

Instruction for use

Prepare Keralevel® Eco LR 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 Keralevel® Eco LR 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. Keralevel® Eco LR is immediately ready for use. The amount of water to be added, indicated on the packaging, is an approximate guide. Adding extra water does not improve the workability of the 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.

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. For subsequent laying of ceramic tiles it is always advisable to obtain a roughened 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, a professional, 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.

Tools

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

SPECIAL NOTES

Joints: all the joints located in the substrate must be respected.

Deformable substrates: if substrates are liable to movement, apply the Kerakoll® eco-friendly adhesion promoter suitable for the type of substrate, following the instructions for use. Attach an anti-alkali 4x5 mm size mesh and mix Keralevel® Eco Ultra with ≈ 3 l of Keraplast Eco P6 latex and ≈ 3 l of water.

Gypsum-base plasters: must be dry and prepared with the Primer A Eco eco-friendly, water-based surface insulation, following the instructions for use.

Anhydrite screeds: must be dry and sanded as specified in the manufacturer's instructions, then prepared with water-based, eco-friendly surface isolation Primer A Eco, following the instructions for use.

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.

Laying hardwood floors: for subsequent laying of hardwood floors, create a smooth finish with thickness ≥ 3 mm.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	Pre-mixed	
Apparent volumetric mass	≈ 1.45 kg/dm ³	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	25 kg bags	
Mixing water	≈ 6 l / 1 25 kg bag	
Specific weight of the mixture	≈ 1.62 kg/dm ³	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	≈ 1.3 kg/m ² 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 absorbcency 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
HIGH-TECH		
Adhesion to concrete after 28 days	≥ 1 N/mm ²	EN 13892-8
Resistance to:		
- compressive strength after 28 days	≥ 20 N/mm ²	EN 13892-2
- flexural after 28 days	≥ 6 N/mm ²	EN 13892-2
- abrasion after 28 days	≤ 250 mm ³	EN 12808-2
Surface hardness after 28 days	≥ 30 N/mm ²	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 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 any other issues, 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.