

Floorzero®

Innovative polymer matrix composite structural support for Cementoresina® floors. Italian design for living comfort.

Smoothing layer made from a mix of ultra-pure resins, with high adhesion and durability. Defines the tough and elastic “zero layer” covering the existing substrates by anchoring to the substrates themselves and eliminating their defects.

Creates the ideal structural substrate for Cementoresina® continuous floors. For internal use, on floors, stairs and shower trays in domestic and commercial applications.



Rating 3

- ✓ Regional Mineral $\geq 30\%$
- × VOC Low Emission
- ✓ Solvent ≤ 5 g/kg
- × Low Ecological Impact
- ✓ Health Care

1. Easily workable
2. Covers existing floors with elasticity
3. Bonds joints elastically, crazing and cracks in the substrate
4. Elastic and tough, reduces the shock and stress of the substrate
5. Maintains the elasticity over time: $\geq 6.6\%$ according to ISO 527-2
6. Does not sag and shrink: dimensionally stable according to UNI EN 12617-1:2004
7. Suitable for heated substrates according to EN 1903

Areas of application

- Tough finishing layer and structural substrate for:
 - Cementoresina® continuous floors and stairs
 - continuous floors, stairs (and shower trays)
 - Cementoresina® R11 high antiskid continuous floors.
- Substrates:
 - cement-based screeds and self-levelling products primed with EP21
 - anhydrite screeds primed with EP21
 - synthetic screeds obtained by mixing EP21 and Quarzo 5.12
 - existing floors in marble, ceramic, porcelain tiles or similar treated with Keragrip Eco Pulep
- For internal use, in domestic and commercial environments. Suitable for the consolidation of substrates even with underfloor heating systems.

Do not use

In external applications; on improperly prepared heated substrates; on substrates subjected to rising damp or with a residual humidity value greater than 2% MC; on cement based substrates containing heating equipment with a residual humidity value greater than 1.7% MC; on anhydrite substrates with a residual humidity value greater than 0.5% MC; on anhydrite substrates containing heating equipment with a residual humidity value greater than 0.2% MC; on hardwood floors, PVC, laminates and linoleum.

Instructions for use

- Preparation of substrates
 - Traditional cement based screeds and self-levelling products: the substrates must be free of dust, oil and grease, with no loose and flaky debris or imperfectly anchored parts such as residues of cement, lime, paint coatings and adhesives, which must be completely removed. The substrates must be stable, non-deformable and have already completed the curing period of hygrometric shrinkage. The substrates must be permanently dry and free from rising damp. Cement based substrates must have a residual moisture at a maximum of 2% or 1.7% in case of under floor heating. The substrates must have a surface tear strength > 1.5 MPa according to ASTM D 4541 and a compressive strength > 25 N/mm². The cement based substrates must be sanded with a suitable abrasive (diamond disc or carborundum) in order to remove impurities or surface bleeding. The cracks, the fissures and the joints must be defined and cut using an angle grinder with a diamond disc. Remove loose or poorly cohesive debris, carefully vacuum the substrate and clean it from dust or sanding residues. The absorbent cement based substrates must be treated with EP21 applied neat and spread using a roller with a coverage of ≈ 0.2 l/m². Spread the primer evenly over the surface, avoid creating any build-up; let the EP21 be absorbed by the substrate before proceeding with the following layer of Floorzero®. After suitable preparation and careful cleaning, the substrates with dusty surfaces, weak or flaky parts, must be treated with EP21 diluted up to 30% with

Keragrip Eco Pulep, applied with a roller with a coverage of ≈ 0.1 – 0.2 l/m² depending on the grade of absorption of the substrate. Wait at least 6 hours for the complete evaporation of the solvent then proceed with a second coat applied neat and spread with a roller with a coverage of ≈ 0.2 l/m². Spread the primer evenly over the surface, avoid creating any build-up; let the EP21 be absorbed by the substrate before proceeding with the following layer of Floorzero®.

- Anhydrite screeds: the substrates must be stable, non-deformable and have already completed the curing period of hygrometric shrinkage. The substrates must be permanently dry and free from rising damp. Anhydrite screeds must have residual moisture of a maximum of 0.5% or 0.2% in case of under floor heating. The anhydrite based screeds must be sanded with a suitable abrasive, cleaned using mechanical dust extraction equipment, then they must be treated with EP21 diluted up to 30% with Keragrip Eco Pulep, applied using a roller with a coverage of ≈ 0.1 – 0.2 l/m² depending on the on the grade of absorption of the substrate. Wait at least 6 hours for the complete evaporation of the solvent then proceed with a second coat applied neat and spread with a roller with a coverage of ≈ 0.2 l/m². Spread the primer evenly over the surface, avoid creating any build-up; let the EP21 be absorbed by the substrate before proceeding with the following layer of Floorzero®.

Instructions for use

- Synthetic screeds: the substrates must be sanded with a suitable abrasive (diamond disc or carborundum) in order to remove any irregularities. Remove loose or poorly cohesive debris, carefully vacuum the substrate and clean it from dust or sanding residues.
 - Existing marble, ceramic, porcelain tile floors: the substrates must be free from dust, oil and grease, with no loose, flaky, or imperfectly anchored parts, any loose elements must be completely removed. The substrates must be stable, non-deformable and have already completed the curing period of hygrometric shrinkage. The substrates must be permanently dry and free from rising damp. The substrates must have a residual moisture at a maximum of 2% or 1.7% in case of under floor heating. The substrates must be sanded with a suitable diamond disc in order to remove any impurities to guarantee optimal adhesion. The cracks, the fissures and the joints must be defined and cut using an angle grinder with a diamond disc. After smoothing remove loose or poorly cohesive debris, carefully vacuum the substrate and clean it from dust or smoothing residues. The substrates must be treated with Keragrip Eco Pulep adhesion promoter: dampen a cloth with Keragrip Eco Pulep and clean all the flooring with it, letting the solvent evaporate to allow the adhesion promoter to evenly spread out on all the surface. Wait 30 minutes before the subsequent application. Avoid spilling Keragrip Eco Pulep as it may dampen the joints and cause subsequent problems of rising vapours.
- Preparation of the joints in the traditional systems
The floor must already be completely cured.
- Desolidarisation/perimeter joints: cut the perimeter band to the level of the floor, lowering it, pushing it down. Dampen the edges of the joints with EP21 applied neat and spread with a brush avoiding any build-up.
 - Fractionizing joints: open and define the joint with an angle grinder (depth of cut 4 – 6 mm); dampen the borders of the joint with EP21 applied neat and spread with a brush avoiding build-up.
 - Expansion/construction joints: open and define the joint with an angle grinder (depth of cut 4 – 6 mm); dampen the borders of the joint with EP21 applied neat and spread with a brush avoiding any build-up. These types of joints can be sealed and maintain the surface continuity of the three-layer system. Following the normal expansion of the substrate, the joints could be seen against the light as raised areas or depressions depending on the movement of the substrate.
- Preparation of the joints in fitted heating systems
The substrate must be completely cured and the correct thermo-shock cycle on the entire system must have been completed a few days before application of Floorzero®.
- Desolidarisation/perimeter joints: cut the perimeter band to the level of the floor, lowering it, pushing it down. Dampen the edges of the joints with EP21 applied neat and spread with a brush avoiding any build-up. In environments with dimensions greater than 10 m² we suggest, when the work has finished, to apply an invisible skirting board on the wall to cover the movements and shrinkage of the joint.
 - Fractionizing joints: open and define the joint with an angle grinder (depth of cut 4 – 6 mm); dampen the borders of the joint with EP21 applied neat and spread with a brush avoiding build-up
 - Expansion/construction joints: open and define the joint with an angle grinder (depth of cut 4 – 6 mm); dampen the borders of the joint with EP21 applied neat and spread with a brush avoiding any build-up. These types of joints can be sealed and maintain the surface continuity of the three-layer system. Following the normal expansion of the substrate, the joints could be seen against the light as raised areas or depressions depending on the movement of the substrate. If the appliance requires different heat radiant slabs at different temperatures, respect the joint with systems that could follow the normal expansions of the substrate.
 - On open surfaces with the complete area over 40 m², check together with the system installer about the possibility of closing the joints according to the maximum working temperature.
- Treatment of joints
The floor must already be completely cured. All the joints (described above), and cracks, after being prepared must be filled and closed with Floorzero® (A+B) product mixed with 3 – 5% of thixotropizing Addensante (thickener) additive ensuring that the mix obtained does not shrink over time.
NB.: all joints and cracks, duly closed as indicated above, that need to continue to "work" following the normal expansion of the substrate, can be seen against the light as raised areas or depressions depending on the movement of the substrate.
- Preparation
Floorzero® is prepared by mixing together parts A and B from the bottom upwards, using a low-rev (400/min.) helicoidal agitator, respecting the preset ratio of 9.25 : 0.75 of the packaging (in

Instructions for use

weight). Shake the Part B well, pour part B into the bucket containing part A, being careful to mix the two parts uniformly until a smooth, even coloured mixture is obtained. After carefully mixing for the first time, run a squared-sided trowel along the sides and bottom of the bucket to remove the part that may not have received part B. After cleaning the trowel in the bucket, mix again with a helicoidal agitator until an even coloured mixture is obtained. It is necessary to mix an amount of product that can be used within 30 minutes.

→ Application.

Spread on the whole surface the Net 90 fiberglass reinforcing mesh, bringing the edges

of the mesh together. Finish the product with a smooth spreader levelling to cover the Net 90 glass-fibre reinforcing mesh, maintaining the coverage of $\approx 2.5 \text{ kg/m}^2$. Pay attention during application to the complete coverage of the glass fibre mesh. Sprinkle wet on wet to saturation with Quarzo 1.3 maintaining the coverage of $\approx 2 \text{ kg/m}^2$.

→ Cleaning

The product can be removed from tools with Diluente 01. After Floorzero® has hardened it can only be removed mechanically.

Certificates and marks



Special notes

- In showers or when preparing steps in the frequent presence of humidity, when it is necessary to incorporate edge beams into the Floorzero®, use straight, rigid PVC or aluminium corner pieces to reinforce the edges.
- After the application of EP21 primer, it is advisable to spread the final coat of EP21 with Quarzo 1.3 while it is still fresh if intending to leave the product to react for over 18 hours.
- Sand and remove any excess of quartz before successive applications.
- On ceramic flooring avoid waste cleaning with water and soda to avoid excessively dampening the substrates through the joints.
- Non-planar or excessively rough substrates must be adjusted and/or corrected with suitable products such as Keratech® Eco Flex or with synthetic mortars produced with EP21 mixed with Quarzo 5.12 in a ratio of 1 : 10. EP21 coverage 200 ml/mm^2 , Quarzo 5.12 coverage 2 kg/mm^2 . Read carefully the relevant technical data sheets before using the above listed products.
- For fixing stainless steel L03 profiles or edge beams for steps, proceed by cleaning the metal with Keragrip Eco Pulep adhesion promoter and proceed with fixing the element with Floorzero® (A+B) product mixed with 3 – 5% of thixotropizing Addensante (thickener) additive ensuring that the element is completely covered by the structural substrate.
- Before the application of the subsequent layer, check that the Floorzero® substrate is leveled, that defects and imperfections of the substrate have been covered, and that the Net 90 reinforcing mesh is not showing.
- Carefully check that imperfectly catalysed areas of Floorzero® are not present (this can result from incorrect mixing); in case they are, carefully remove all areas that have not perfectly hardened. If widespread defects are present, consider applying an additional coat of Floorzero®.

Technical Data compliant with Kerakoll Quality Standard

Appearance:

- Part A	green paste
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- Part B	yellowish liquid
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Shelf life	≈ 12 months from production in the original sealed packaging
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Warning	protect from frost and store from +5 °C
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Pack (monopack 9.25 + 0.75 kg):

- Part A	bucket 9.25 kg
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- Part B	bottle 0.75 kg
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Mixing ratio in weight	part A : part B = 9.25 : 0.75
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Pot life	≈ 30 min.
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Foot traffic	≈ 6 hrs (+20 °C) – 18 hrs (+10 °C)
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Interval before normal use	≈ 48 hrs
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Temperature range for application	from +10 °C to +30 °C
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Relative environmental humidity	≤ 75%
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Humidity of the substrate	≤ 2%
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Viscosity	≈ 120,000 mPa · s, rotor 93 RPM 50
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Brookfield
method

Floor substrate coverage

- thickness 1.5 mm	≈ 2.5 kg/m ² of Floorzero®
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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

HIGH-TECH

Conformity

SR-B2,0-E1

EN 13813

Warning

- Product for professional use
- abide by any standards and national regulations
- apply the product at substrate temperatures from +10 °C
- apply on permanently dry substrates
- protect from direct sunlight and currents of air for the first 6 hours
- do not apply on dirty or loose surfaces
- dispose of as indicated in applicable legislation
- the properties of products exposed to sharp changes in temperature (due to transport, storage, building site use, etc.) may be altered (e.g. crystallisation, partial hardening, fluidization, accelerated or delayed catalysis).
- In most cases, when products are restored to optimal conditions, the original properties will also be restored
- protect any surfaces and objects in the application area from accidental contact with the product
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll Worldwide Global Service 01772 456 831 - info@kerakoll.co.uk



The Rating classifications refer to the GreenBuilding Rating® Manual 2013. This information was last updated in January 2021 (ref. GBR Data Report - 02.21); 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.