

ECO-FRIENDLY, WATERPROOFING SYSTEM

AquaExpert 3



Anti-cracking, high-adhesion and superior durability waterproofing system which guarantees immediate laying of ceramic tiles and natural stone even on cracked substrates that may contain vapour pressure for residual substrate moisture content.

KERAKOLL
The GreenBuilding Company



AquaExpert 3

AquaExpert 3 is the anti-cracking, high-adhesion and superior durability waterproofing system, specifically intended for balconies, terraces and horizontal surfaces of any size, to be floored with ceramic tiles and natural stone. Guarantees immediate laying of the coating even on substrates that are cracked or with a potential for vapour pressure due to residual damp, ensuring maximum stability even without creating fractionising and expansion joints in the screed.

AquaExpert 3 is an integrated waterproofing system consisting of **Aquastop Green** anti-fracture, waterproof membrane, **Aquastop 100** elastic waterproofing tape for joints, and **Aquastop Fix**, certified mineral sealant. Laying of the entire system, using **Biolab® No Limits®** multi-purpose, structural adhesive gel, **ensures maximum adhesion** of the membrane to the substrate and of the subsequent flooring layer.

With **AquaExpert 3** it is possible to create new flooring for balconies and terraces safely, because the innovative **Aquastop Green** anti-cracking, waterproof membrane ensures high levels of adhesion, durability and waterproofing over time.



Why choose AquaExpert 3

IT COMPENSATES FOR HYGROMETRIC SHRINKAGE

Hygrometric shrinkage of the screed, which causes open cracks to form, is compensated by bending of the membrane without causing debonding of the flooring.

SEPARATES THE FLOORING LAYERS

Physical separation of the layers avoids the transmission of stress (shrinkage, expansion, movements, loads, etc.), increasing the durability of the bonded system.

UNIQUE, IT ALLOWS ANY TYPE OF LAYING PATTERN

Elastic floor expansion joints can be created while avoiding unattractive cutting of the tiles.

IT COMPENSATES FOR THERMAL EXPANSION STRESS

Bending of the membrane compensates for thermal expansion/contraction of the floor, which is always faster and greater than that of the substrate.

IT COMPENSATES FOR VAPOUR PRESSURE CAUSED BY RESIDUAL HUMIDITY ON THE SUBSTRATE

Vapour pressure caused by residual humidity in uncured substrates is released into the channels in the membrane, without stressing the flooring.

FAST, IT REDUCES ON-SITE WORKING TIMES

All the laying phases can be carried out without interruptions: waterproofing, laying, grouting and sealing.

PRACTICAL, IMMEDIATELY ACCESSIBLE TO FOOT TRAFFIC

Allows the fitter to work freely over the entire surface, without having to interrupt other site activities.

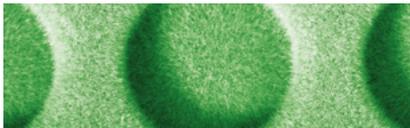


Aquastop Green: the 1st patented multiple layer, composite polymer-based membrane with 3 high specialisation layers



PA - hydrophobic fibers

The upper layer in PA fibres guarantees adhesion to the Biolab® No Limits® on the underlying layer; without fibres the adhesion values are much lower than the minimum requirements of standard EN 12004 (tile adhesives). The water-repellent treatment restricts the circulation of water under the tiles.



Aquastop Green fibre layer.



HDPE - waterproof structure

The HDPE membrane bends to compensate for stress generated by expansion of the floor and hygrometric shrinkage of uncured substrates. The membrane compensates for cracks in the screed with movements of up to 1 mm. Cracking due to shrinkage in Keracem® Eco Pronto screed takes place after 24 hours with a movement of less than 1mm; in sand-cement screeds the same movements occur, but with a different spacing and over a longer period of time. Aquastop Green makes it possible to waterproof uncured screeds without fractioning/expansion joints: movement of the screed due to hygrometric shrinkage is compensated by bending of the membrane. Elastic floor expansion joints are created while avoiding unattractive cutting of the tiles.

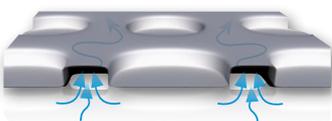


Aquastop Green compensates for expansion and shrinkage stress caused by the coating or the substrate.



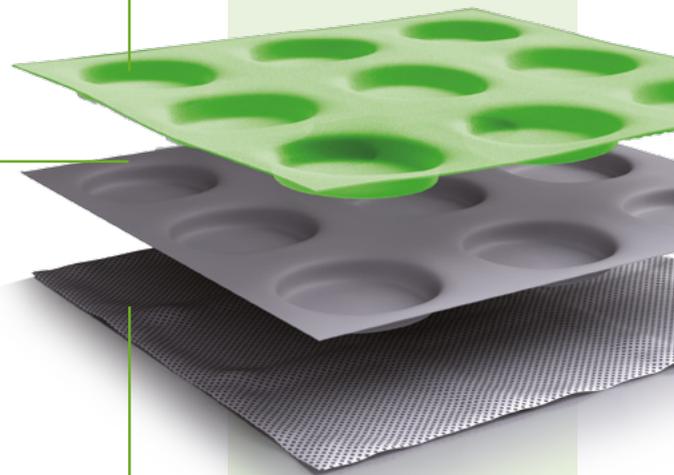
TNT - breathable fabric

The special geo-textile used in Aquastop Green allows the vapour to be dispersed into a network of channels, with Biolab® No Limits® it guarantees adhesion to the substrates and prevents the adhesive from blocking the channels. Aquastop Green can be applied just 24 hours after forming the screed, provided it will bear foot traffic. In the event of rain showers during the hours preceding laying of Aquastop Green, check that the surface is dry and free from standing water. In the event of rain during the days preceding, check that at least the top 1/4 of the screed is dry.



The air space volume allows dispersion of vapour pressure from the substrate.

EUROPEAN PATENT

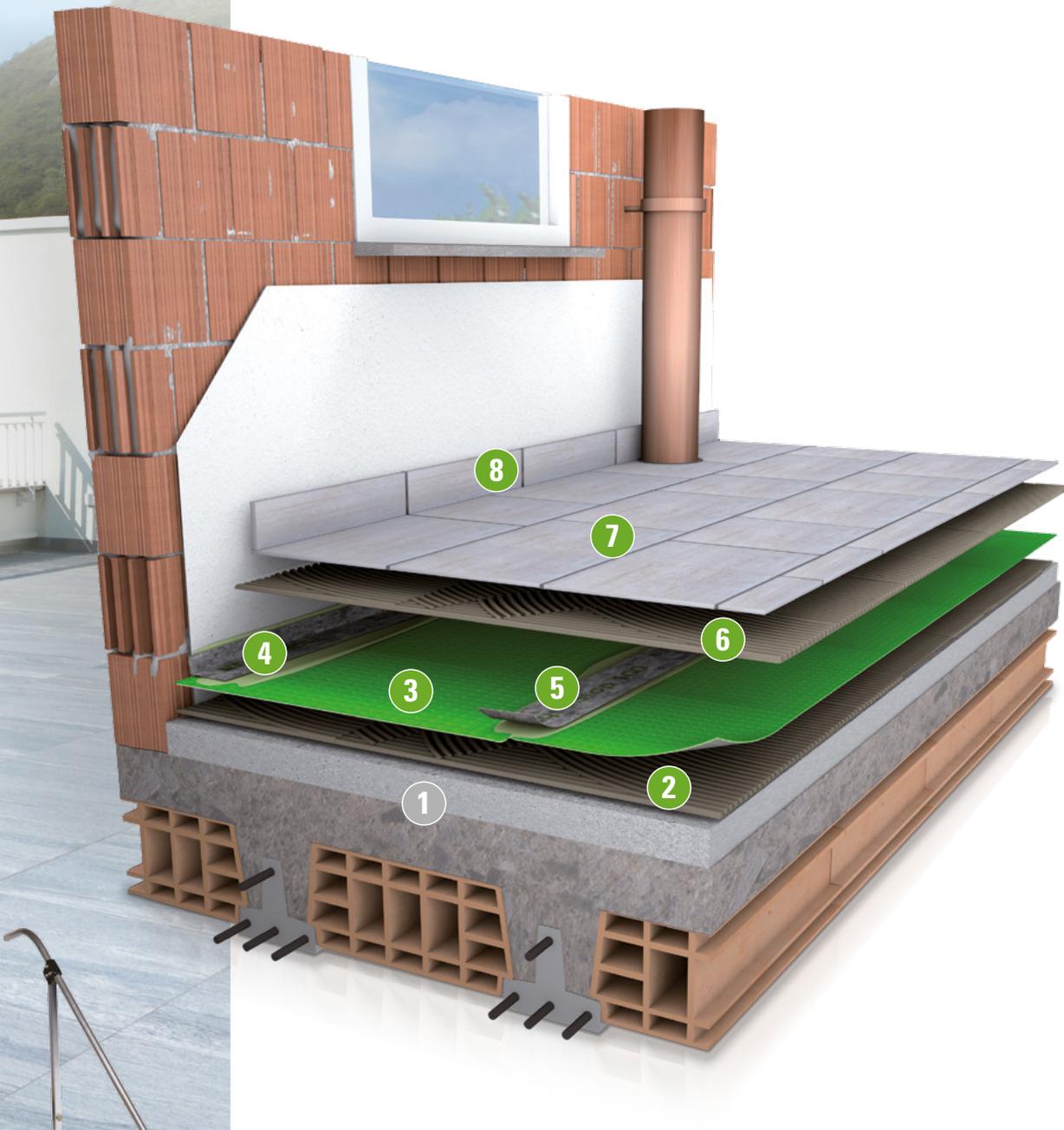


The extremely high innovative content of Aquastop Green is the subject of an industrial patent issued by the European Patent Office and valid in 36 designated European countries. The text of the patent includes the specific methods and materials used for the composite membrane, the relative geometries, the manufacturing technical innovations and, in particular, the characteristics of the exclusive PA fibres.



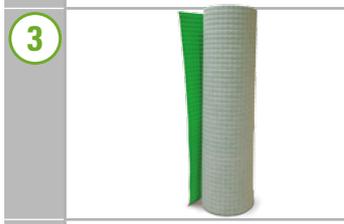
COMPLETE, SAFE WATERPROOFING SYSTEM FOR BALCONIES, TERRACES AND EXTERNAL SURFACES OF WHATEVER SIZE.

- It waterproofs any surface, old or new, damp or dry, cracked or subject to dimensional variations.
- It compensates for hygrometric shrinkage and thermal deformation stress.
- It reduces on-site working times: waterproofing and laying of the coating without waiting, withstands foot traffic immediately.
- It solves the problem of respecting substrate joints.



Aquaform

AquaExpert systems foresee waterproofing of building elements and completion of the balcony and terrace with the Aquaform range of accessories, specially designed to guarantee maximum safety and durability even in details that often determine the overall result of the operation.



EXPANSION JOINTS

COVERAGE
see technical data sheet



Fugabella® Eco Silicone

Eco-friendly, silicone, acetic, anti-mould organic sealant with a high level of elasticity for expansion-deformation joints, ideal for use in GreenBuilding.



GROUTING

COVERAGE
see technical data sheet



Fugabella® Eco Flex

Certified, eco-friendly, naturally bacteriostatic and fungistatic, rapid setting and hardening mineral grout stabilized with pure NHL 5 natural lime mortar for extremely colour-fast joints from 2 mm to 12 mm in thickness, ideal for use in GreenBuilding.



CERAMIC LAYING

COVERAGE
per mm of thickness
≈ 1,25 kg/m²



Biolab® No Limits®

Exclusive Kerakoll geo-binder based, structural flexible multi-purpose adhesive gel for bonding all types of material, on all substrates, and for all uses, even in extreme conditions. Eco-friendly.



WATERPROOFING

Aquastop 100

Polyethylene, elastic waterproof tape coated on both sides with high-adhesion, non-woven polypropylene to seal perimeter joints and between adjacent sheets in the AquaExpert 3 system.



COVERAGE
≈ 0.8 kg/m²



Aquastop Fix

Certified, eco-friendly, mineral sealant for water-resistant, high-adhesion sealing, ideal for use in GreenBuilding. Single-component with very low volatile organic compound emissions. Recyclable as an inert material at the end of its life.



Aquastop Green

Anti-cracking waterproof membrane with high adhesion for balconies, terraces and horizontal surfaces before laying ceramic tiles or natural stone; creates a waterproof surface even when overlaid on substrates that are cracked, have not been perfectly cured or might contain vapour pressure due to residual substrate moisture content.



COVERAGE
per mm of thickness
≈ 1,25 kg/m²



Biolab® No Limits®

Exclusive Kerakoll geo-binder based, structural flexible multi-purpose adhesive gel for bonding all types of material, on all substrates, and for all uses, even in extreme conditions. Eco-friendly.



SUBSTRATE

Substrates: screeds, marble floor tiles, natural stone floorings anchored to the substrate, fibre-cement and plaster-board panels anchored to the substrate. Check mechanical performance and substrates integrity; check the surface cleaning.

Only Kerakoll® has AquaExpert 3



MKT-TEC code 36716 - Data Report 05.16 EN



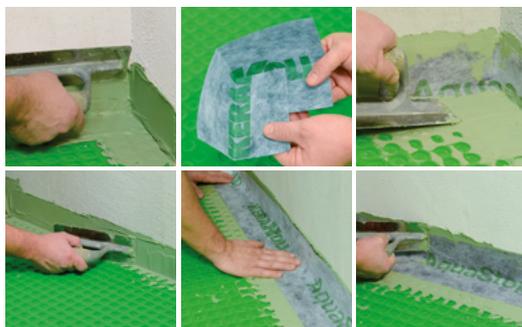
Preparation of substrate

- Check the mechanical performance of the laying substrate
- Restore the continuity of the screed by sealing cracks with **Kerarep Eco**
- Check the levelness and the presence of suitable camber



Laying AquaExpert Green

- Cut the sheets to size, considering ≈ 5 mm between the sheets and the perimeter walls
- Bond the sheets to the substrate using **Biolab® No Limits®** adhesive
- Press the sheets down onto the fresh adhesive using **Aquaform R**
- Check that the back of the membrane has been completely dampened



Perimeter waterproofing

- Seal the outer edges, starting from the corners
- Create special pieces by cutting the **Aquastop 100**
- Position the special piece on the fresh **Aquastop Fix** sealant and press to guarantee total bonding of the tape
- Seal the rest of the outer edge by laying **Aquastop Fix** and overlapping **Aquastop 100** by approximately 10 cm
- Remove any excess sealant that may have seeped out and check the adhesion of the tape



Waterproofing between the sheets

- Seal the joints between sheets using **Aquastop Fix** and apply **Aquastop 100** tape on the fresh sealant
- After laying, protect the surface of the membrane from heavy traffic and direct abrasion



Joining the waterproofing layer - drains

- Join the **Aquaform** drains with **Aquastop Fix** and **Aquastop 100** to totally seal the edges of the drain
- In cases where there is insufficient space for adhesion of the **Aquastop 100**, seal using **Aquastop Nanosil**



Laying, grouting and sealing

- Bond the flooring with **Biolab® No Limits®** using a suitable toothed spreader
- Grout joints using **Fugabella® Eco Flex**
- Seal the elastic joints with **Fugabella® Eco Silicone**

All details on how to create perfect waterproofing can be found on the AquaExpert Green technical sheet!



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