

Kerakoll® Laminates: revolutionary laying systems for safe and secure uncoupling, anti-cracking and waterproofing



“The technical and application limits of old uncoupling anti cracking systems have now been overcome by revolutionary Kerakoll® Laminates: the only product on the market to ensure perfectly prepared substrates even in the most extreme conditions.

Result: a safe, perfect, everlasting installation for all internal and external surfaces of all types and sizes”.

KERAKOLL
The GreenBuilding Company

Gel technology has given birth to Kerakoll® Laminates



GEL[®]
TECHNOLOGY

The 9 research laboratories within the futuristic **GreenLab Kerakoll** represent the world's most advanced technology centre for the study and development of new materials for green building sector.

The constraints of traditional laying products and systems have been overcome by the highly technical design of these polymer-based membranes which use advanced technology. With **Aquastop Green**, the

new multi-layer anti-cracking composite membrane, laying becomes easy even under the most extreme conditions.

The revolutionary **Laminate No Crack** system is born from the combination of **Aquastop Green** waterproofing, uncoupling, anti-cracking membrane and **Biogel® No Limits®** gel adhesive. It solves any laying problem and ensures perfect waterproofing guaranteed to keep your floor safe and secure.



LAMINATE
NO CRACK **Uncoupling**

BIOGEL® NO LIMITS®
AQUASTOP GREEN

THE GUARANTEED SOLUTION FOR
UNCOUPLING, ANTI-CRACKING
LAYING OF TILES AND NATURAL
STONE ON ANY KIND OF SUBSTRATE



BIOGEL® NO LIMITS®
AQUASTOP GREEN

THE GUARANTEED SOLUTION FOR
UNCOUPLING, ANTI-CRACKING
WATERPROOF LAYING OF ANY TYPE OF
COATING ON ANY TYPE OF SUBSTRATE

LAMINATE
NO CRACK **Waterproof**

The Aquastop Green innovative membrane

AQUASTOP GREEN THE 1ST MULTI-LAYER, COMPOSITE POLYMER-BASED MEMBRANE

Aquastop Green is a Kerakoll laboratories' invention with the highest possible innovative and technological content: a multi-layer, uncoupling, anti-cracking composite polymer membrane that revolutionizes laying.

The high-density polyethylene central structure - the waterproof and deformable membrane core - can blend with the crystalline microstructure of the **Biogel® No Limits®** gel adhesive thanks to the upper and lower layers which are specifically designed to allow total affinity with cement-based substrates and ceramic tiles.

Laminate No Crack: the definitive solution for laying on old or new, cracked and uncured substrates or substrates subject to dimensional movements or with vapour pressure caused by residual moisture.



AQUASTOP GREEN SECRETS

The **Aquastop Green** membrane is the result of innovative research aimed at optimizing the contact surfaces between the polymer membrane and **Biogel® No Limits®** gel adhesive.

Kerakoll researchers devised a **three-dimensional reinforcing mesh**, composed of polyamide fibres with a predefined length, which have a calibrated nanometric roughness which ensures the development of physical-chemical bonds with the **Biogel® No Limits®** gel adhesive.

The presence of the fibres guarantees an available contact surface equal to about **4.7 times** (+ 470%) that of the flat surface of the membrane; the adhesion values of the gel adhesive to the polymeric support increase enormously, guaranteeing extremely high performances and durability.

The fibres are also subjected to a specific **spry-dry polymeric treatment** to regulate the balance between hydrophobicity and hydrophilicity, both to reduce the circulation of rainwater and to allow the gel adhesive to complete the geo-binder hydration process and fully develop adhesion and cohesion properties.



AQUASTOP GREEN: 3 HIGHLY SPECIALISED LAYERS



PA - hydrophobic fibres

The upper layer in PA fibres guarantees adhesion to the **Biogel® 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 presence of the fibre layer allows the physical fusion of the **Biogel® No Limits®** gel adhesive and the same durability performances that can be achieved on traditional substrates. The water-repellent treatment restricts the circulation of water under the tiles.



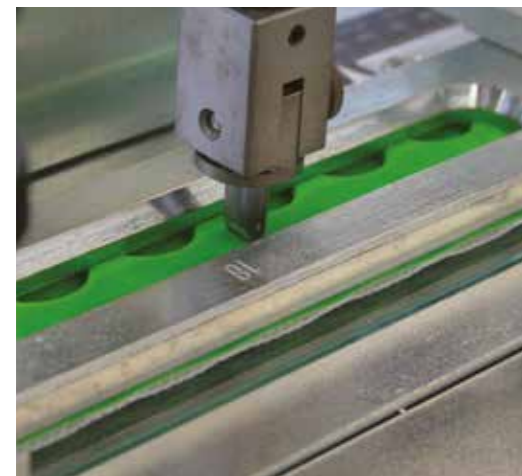
HDPE - waterproof structure

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. 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 can be created while avoiding unattractive cuts in the tiling scheme.



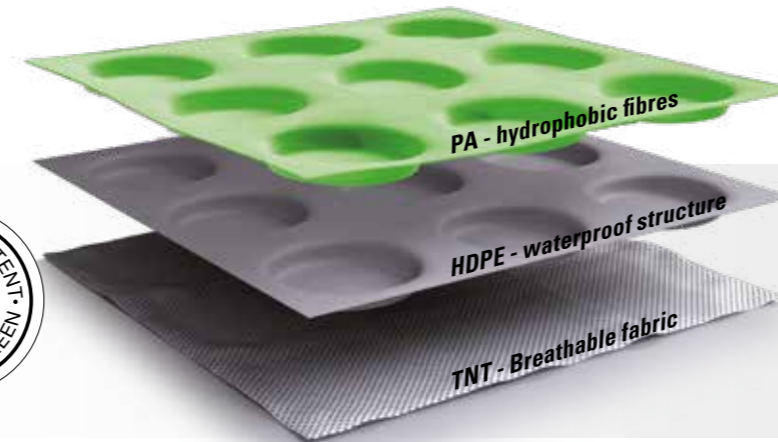
TNT - Breathable fabric

Working in concert with **Biogel® No Limits®**, Aquastop Green special non-woven fabric geo-textile guarantees perfect adhesion to the substrates and allows vapour to be dispersed into a network of channels not blocked by the adhesive. The channels, air space ensures the rapid dispersal of moisture and vapour from the substrate meaning it can be applied as early as 24 hours from the creation of the screed as long as it is capable of bearing foot traffic. This feature permits the application of Aquastop Green even in the event of rain or rain showers during the hours preceding laying. Simply check that the surface is dry and free from standing water.



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.



Aquastop Green fibre layer.



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



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

How the Laminate No Crack was born

LAMINATE NO CRACK

The structural fusion between the Aquastop Green membrane and the gel adhesive creates an extremely innovative system giving high anti-cracking, waterproofing, shear adhesion and durability: **Laminate No Crack**.

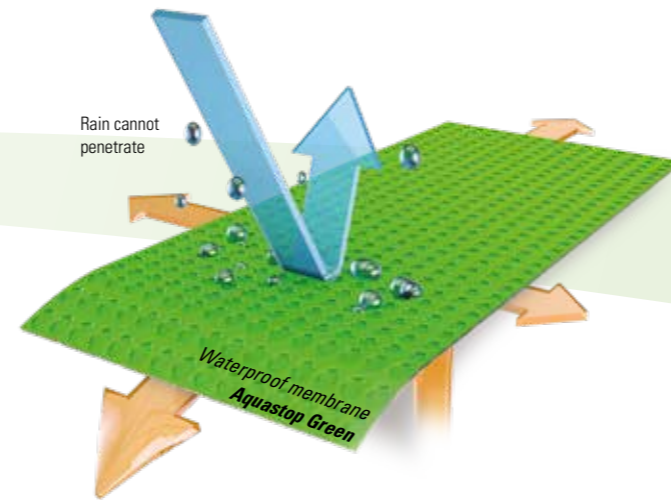
Laminate No Crack allows critical issues in substrates to be overcome before fixing the tiles. The system's anti-cracking deformation physically interrupts stress transmission between substrate and floor, thus guaranteeing the adhesion of the floor and the durability of the installation.

Kerakoll has always been on the side of the installer, offering innovative solutions to building site problems to make the job easier and safer.



1. IT IS A TRICOMPOSITE MEMBRANE

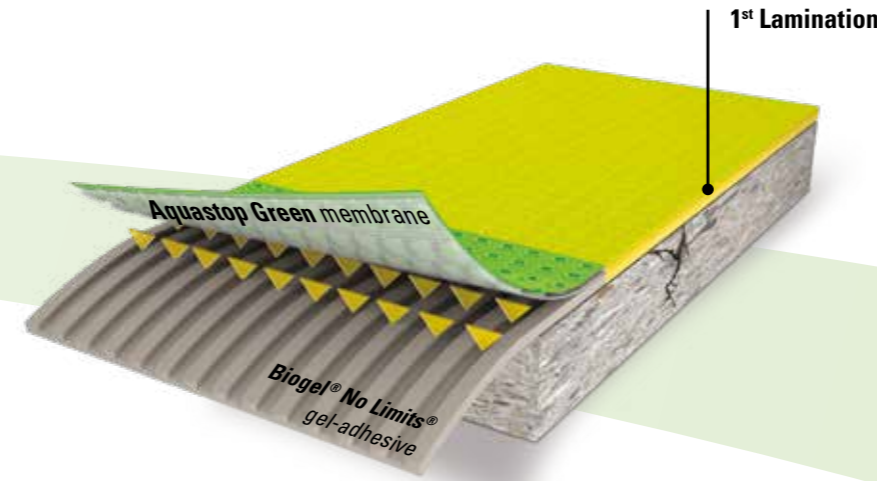
Aquastop Green polymer membrane is the technological core of **Laminate No Crack**.



Aquastop Green is the result of innovative design aimed at the optimization of contact surfaces: a three-dimensional reinforcing mesh system composed of polymer fibres and a special nonwoven fabric; surfaces specifically designed for structural adhesion with the **Biogel® No Limits®** gel adhesive used for the laying of the membrane and the subsequent bonding of the coating.

2. IT IS A GEL ADHESIVE

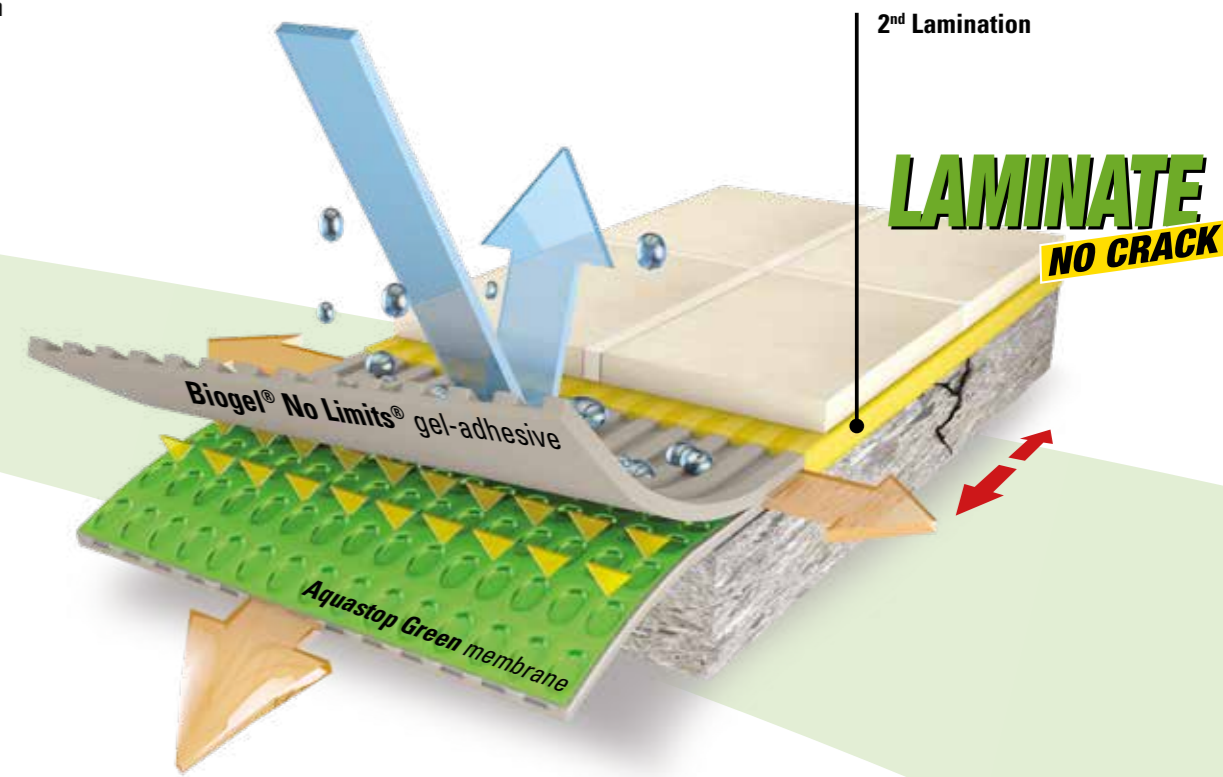
The high-performance **Biogel® No Limits®** gel adhesive applied on **Aquastop Green** membrane creates **Laminate No Crack**.



Biogel® No Limits®'s fluid and thixo consistency with total wettability ensures maximum structural adhesion of the non-woven fabric of the **Aquastop Green** membrane creating the 1st lamination layer. When the tiles are laid the gel adhesive captures and envelopes the fibres of the three-dimensional reinforcing mesh, generating the 2nd lamination through selective bonds with extremely high shear adhesion, which produce a physical-mechanical structural fusion: this is how the new **Laminate No Crack** is born.

3. IT IS AN INNOVATIVE TECHNOLOGY

Unlike the old uncoupling anti-cracking systems, **Laminate No Crack** creates a single body with no stresses between the substrate and the coating, ensuring shear adhesion and cohesion performances never achieved before. The revolutionary **Laminate No Crack** guarantees the safety of uncoupling, anti-cracking, waterproof laying vapour releasing even in the most extreme weather conditions.



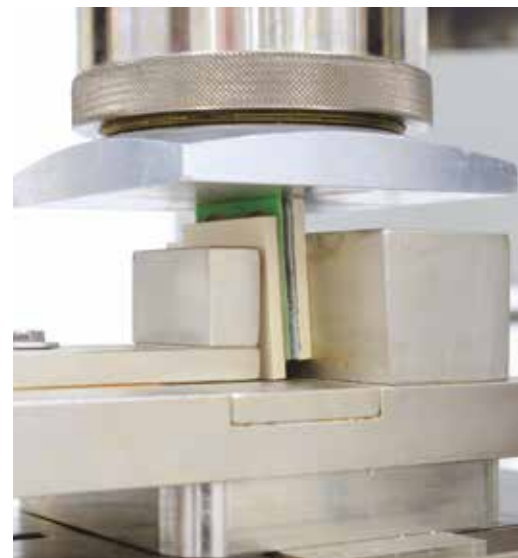
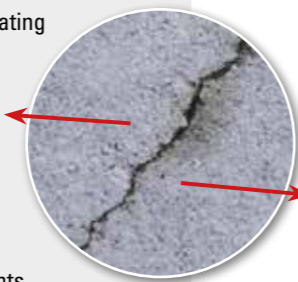
4. IT IS SAFE AND SECURE

All surfaces created with **Laminate No Crack** technology are tested to make your floor secure.

ANTI-CRACKING - NO JOINTS

Laminate No Crack is capable of compensating for hygrometric shrinkage of the screeds (movements ≤ 1 mm); this means it is possible to lay the membrane even on uncured screeds and/or on screeds without a suitable network of fractionising joints.

In the case of fractured screeds or floors or those with a network of fractionising joints, application of the membrane means that the laying pattern of the new flooring is not bound by the layout of the joints in the substrate.



LAMINATE

NO CRACK *Uncoupling*
**FOR UNCOUPLING, ANTI-CRACKING,
 LAYING ON ALL SURFACES**

UNCOUPLING, ANTI-CRACKING, HIGH-ADHESION AND SUPERIOR DURABILITY LAYING SYSTEM WHICH GUARANTEES IMMEDIATE LAYING OF CERAMIC TILES AND NATURAL STONES EVEN ON CRACKED SUBSTRATES THAT MAY CONTAIN VAPOUR PRESSURE DUE TO RESIDUAL SUBSTRATE MOISTURE CONTENT.

Laminate No Crack Uncoupling is the safest laying system for any surface, old or new, damp or dry, cracked or subject to dimensional movements. It allows for immediate laying with **Biogel® No Limits®** gel adhesive, giving extremely high shear strength whatever the laying pattern, with no need to respect the substrate's joints, thermo technical joints, and cancelling out fissures and cracks in the substrate.

IDEAL FOR UNDERFLOOR HEATING SYSTEMS

The Aquastop Green membrane is ideal for **heated floors** of any kind as it promotes heat diffusion without reducing the yield of the system.

The EN 1264-3 Standard indicates to consider a minimum thermal resistance value of 0.10 m² K/W for all the elements except to use the characteristic value when it is higher (higher resistance). The thermal resistance of Aquastop Green is **0.030 m² K/W** (Istituto Giordano test report 268740) therefore not influential for sizing (**it does NOT reduce the passage of heat**).



HEAVY TRAFFIC

Laminate No Crack coated with 10-mm thick porcelain tiles achieves extremely high mechanical performance and can be used for commercial and industrial uses even in the presence of high-impact, **extremely heavy loads** having passed the strictest resistance test to dynamic stress (Robinson Test) according to ASTM Standard C 627 (Floor Tiling Guide classification).



- SPECIFICALLY FOR CANCELLING OUT CRACKS, JOINTS AND CHASES IN THE SUBSTRATES
- IT COMPENSATES FOR HYGROMETRIC SHRINKAGE STRESS IN UNCURED SUBSTRATES
- ALLOWS ANY LAYING DESIGN
- PRACTICAL AND FAST, IMMEDIATELY ACCESSIBLE TO FOOT TRAFFIC



6

Silicone Color

Decorative sealant for tiles and mosaic in 50 design colours. Green product for bio-building.

5

Fugabella® Color

Decorative Resina-cemento® (resin-cement) for grouting of ceramic and porcelain tiles, mosaic and natural stone in a 50-colour design range. Green product for bio-building.

Laminate No Crack Uncoupling

4

Biogel® No Limits®

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

3

Aquastop Green

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

2

Biogel® No Limits®

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

1

Keracem® Eco Pronto

Certified, ready-to-use, eco-friendly, normal-setting and rapid-drying mineral screed to be covered with adhesives, ideal for use in GreenBuilding.



LAMINATE

NO CRACK Waterproof

FOR ANTI-CRACKING WATERPROOF LAYING ON ALL SURFACES



UNCOUPLING, ANTI-CRACKING, HIGH-ADHESION AND SUPERIOR DURABILITY WATERPROOFING SYSTEM WHICH GUARANTEES IMMEDIATE LAYING OF CERAMIC TILES AND NATURAL STONES EVEN ON CRACKED SUBSTRATES THAT MAY CONTAIN VAPOUR PRESSURE DUE TO RESIDUAL SUBSTRATE MOISTURE CONTENT.

Laminate No Crack Waterproof is the safest system for waterproofing balconies, terraces and external surfaces of any size, old or new, damp or dry, cracked or subject to dimensional movements, allowing for an installation with very high shear strength using **Biogel® No Limits®** gel adhesive with any laying pattern, without respecting the joints of the substrate.

IDEAL FOR DAMP SUBSTRATES

Waterproofing substrates with high residual humidity is a risk that the installer often has to take in outdoor settings; in fact, curing times and sudden changes in the weather mean having to waterproof over-damp substrates.

Laying of **Laminate No Crack Waterproof** can be carried out on cement-based screeds as soon as sufficient mechanical performance is achieved for foot traffic and subsequent operations. In the event of rain showers during the hours preceding laying, simply check that the surface is dry and free from standing water.

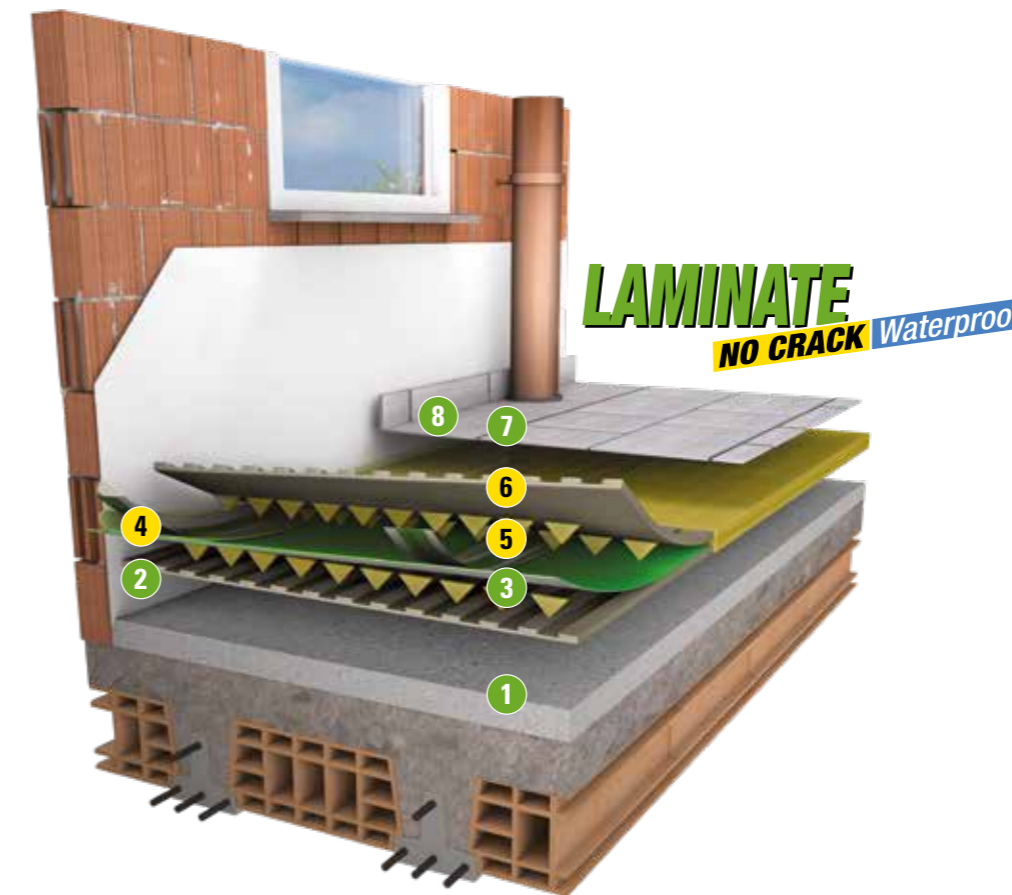


IMMEDIATELY WALKABLE

The **Aquastop Green** structure allows immediate foot traffic avoiding mandatory laying patterns; all site activities can continue freely, avoiding costly job interruptions and helping installers to save time.



- SPECIFICALLY FOR WATERPROOF LAYING ON UNCURED OR NOT PERFECTLY DRY SUBSTRATES
- SEPARATES THE FLOORING LAYERS
- PRACTICAL AND FAST, IMMEDIATELY ACCESSIBLE TO FOOT TRAFFIC



8



Silicone Color

Decorative sealant for tiles and mosaic in 50 design colours. Green product for bio-building.

7



Fugabella® Color

Decorative Resina-cemento® (resin-cement) for grouting of ceramic and porcelain tiles, mosaic and natural stone in a 50-colour design range. Green product for bio-building.

6



Biogel® No Limits®

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

5



Aquastop 120

Flexible NBR waterproof joint for perimeter and fractionizing joints in waterproofing systems. For use under ceramic and porcelain tiles and natural stone. Bonds directly on application.

4



Aquastop Fix

One-component organic sealant for waterproof sealing with high adhesion with Aquastop tapes in the Laminate No Crack system, ready to use, eco-friendly. Ideal for use in GreenBuilding.

3



Aquastop Green

Uncoupling and 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.

2



Biogel® No Limits®

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

1



Keracem® Eco Pronto

Certified, ready-to-use, eco-friendly, normal-setting and rapid-drying mineral screed to be covered with adhesives, ideal for use in GreenBuilding.

Kerakoll® Laminates tested to make your floor secure



For uncoupling anti-cracking
laying on all surfaces



For uncoupling anti-cracking and
waterproof laying on all surfaces



www.kerakoll.com

KERAKOLL GULF DWC-LLC

Office 516, Building E - Business Park, Dubai World Central - Dubai UAE

Tel +971 (0) 04 882 0402 info@kerakoll.ae