

Aquastop Nanoflex®

Certified, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane for the flexible waterproofing with high levels of adhesion and durability of substrates before laying with adhesives, ideal for use in GreenBuilding. Single-component with low CO₂ emissions and very low volatile organic compound emissions, recyclable as an inert material at the end of its life.

Aquastop Nanoflex® develops a smooth, fluid mixture that can be adjusted by varying the amount of water in order to obtain optimal workability for the particular site conditions, guaranteeing maximum adhesion of the bonded system.



GREENBUILDING RATING®

Aquastop Nanoflex®
 - Category: Inorganic Mineral Products
 - Class: Nanotech waterproofing products
 - Rating: Eco 3

			CO ₂ /kg emission 108 g	Very low VOC emissions	Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

PRODUCT STRENGTHS

- Floors and walls, for internal and external use
- Breathable
- Crack Bridging Ability
- Specifically intended for laying ceramic tiles, natural stone and glass mosaic using adhesives from the H40® range
- Suitable for overlaying
- 30% better coverage than two-component systems
- 20 kg paper bags with carrier handle
- Nanotech technology which makes it completely water repellent and gives permanent elasticity and high chemical stability

ECO NOTES

- Can be recycled as mineral inert material, avoiding waste disposal costs and environmental impact
- Single-component; avoiding the use of plastic cans reduces CO₂ emissions and the need to dispose of special waste

KERAKOLL® WATERSTOP SYSTEM

KERAKOLL® WATERSTOP SYSTEM is the brand behind AquaExpert systems, the state-of-the-art waterproofing systems for balconies, terraces and any surface whatsoever where ceramic tiles, natural stone and glass mosaic are to be laid. AquaExpert guarantees 100% water-resistant substrates and the highest possible chemical/physical compatibility ratio with cement-based adhesives that are suitable for laying the floor coverings, thereby ensuring the long life of the entire bonded system.

Aquastop Nanoflex® eco-friendly membrane is used in the following AquaExpert systems:

AQUAEXPERT 1 Flexible, high-adhesion and superior durability waterproofing system which is easy and fast to apply. Specifically intended for balconies, terraces and horizontal external surfaces that are small in size and with no expansion joints in the screed to be covered with ceramic tiles and natural stone. Guarantees water-resistance without the use of a reinforcing mesh.

AQUAEXPERT 2 Flexible, high-adhesion and superior durability waterproofing system which provides greater shear strength. Specifically intended for balconies, terraces and horizontal external surfaces of any size and with expansion joints in the screed to be covered with ceramic tiles and natural stone.

AREAS OF USE

Use
 Terraces, balconies, horizontal surfaces and swimming pools on mineral screeds, monolithic cement-based screeds, existing floors covered with ceramic and marble tiles, dimensionally stable natural stone well-anchored to the substrate and clean, cement-based plasters/renders and cementitious mortars, aged concrete.

* 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).

AREAS OF USE

Do not use

On gypsum or anhydrite-based substrates without the use of Primer A Eco eco-friendly, water-based surface isolation, on metal or wood substrates, on bituminous sheeting, to waterproof exposed surfaces subject to foot traffic, on low-density screeds, on insulation layers on inverted roofs made with insulating panels or low-density materials, in swimming pools and tanks used to hold exposed water, when adhesion of the coverings requires the use of reactive adhesives.

INSTRUCTIONS FOR USE

Preparation of substrates

The substrate must be perfectly cured and dry, solid (i.e. free of weak or easily removable parts) and free from oil, grease, paint and parting compound. When working on weakened parts, when parts of the substrate are missing and also in the case of gravel beds, the substrate must be restored with suitable products. Correct uneven areas with suitable finishing products. On ceramic substrates all traces of surface treatments such as wax and oil must be removed. The most suitable cleaning methods are sandblasting, mechanical scarification or washing with detergents and jet washing. Before application damp the surface of absorbent substrates, without letting any build-up of water occur.

In the AquaExpert 1 system, waterproof the perimeter, expansion and desolidarisation joints in the substrates using Aquastop 70 anchored using Aquastop Nanoflex®; create special pieces for external angles, internal angles and connections to drains and installations by cutting the Aquastop 70 tape.

In the AquaExpert 2 system, waterproof the fractionizing, expansion and desolidarisation joints in the substrates using Aquastop 100 anchored using adhesive from the H40® range; create special pieces for external angles, internal angles and connections to drains and installations by cutting the Aquastop 100 tape.

Waterproof the structural joints using Idrojoint 220 and Idrojoint 220 Flex applied with Idrojoint Eco Gum.

Preparation

Prepare Aquastop Nanoflex® in a clean container by pouring in approximately ¾ of the water required. Gradually add Aquastop Nanoflex® to the container, mixing the paste from the bottom upwards with a low-rev (≈ 400/min) agitator. Add more water until the desired consistency is obtained. The mixture must be of smooth consistency and without any lumps. The amount of water to be added, indicated on the packaging, is an approximate guide. It is possible to obtain mixtures with a more or less fluid consistency, depending on the type of application.

Application

Aquastop Nanoflex® should be applied with a smooth spreader on a previously prepared substrate. Apply the first coat about 1 – 2 mm thick, pressing down to ensure maximum adhesion to the substrate. Once hardened and after removing any surface condensation, apply the second coat of Aquastop Nanoflex®. Lay a continuous, even layer about 2-3 mm thick covering the substrate completely. When waterproofing with Aquastop AR1 mesh, submerge the reinforcing mesh fully in the first layer of freshly applied waterproofing product, pressing down with the spreader. The subsequent laying of the covering with H40® range eco-friendly mineral adhesive should be placed at least 24 hours after the last layer has been applied. When working in low temperatures and with high humidity, the waiting time before laying will be longer. If rain falls on the product before it is fully hardened, check it is ready before applying the next coat/covering.

Cleaning

Residual traces of Aquastop Nanoflex® can be removed from tools with plain water before the product hardens.

SPECIAL NOTES

Pools, tanks, basements and foundations in cured reinforced concrete: break the spacer holes mechanically and clean them suitably, then apply Nanosil Eco neutral organic silane sealant and level the surface with a suitable finishing product. Waterproof the corners by anchoring Aquastop 100 tape with adhesive from the H40® range, creating special pieces for external angles, internal angles and connections to drains and installations by cutting the tape itself. Where there is insufficient space to use Aquastop 100 tape, apply Nanosil Eco sealant.

Surfaces subject to foot traffic: use Aquastop Traffic to protect untiled surfaces that have been waterproofed using Aquastop Nanoflex®.

ABSTRACT

AquaExpert 1 System

Waterproofing for floor-wall joints – Supply and application of non-woven, alkali-resistant waterproof polypropylene tape with high adhesion, such as Aquastop 70 to be fixed with single-component, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane with GreenBuilding Rating® Eco 3, such as Aquastop Nanoflex® by Kerakoll Spa.

Substrate waterproofing – Certified supply and application of flexible, single-component, variable rheology, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane with high levels of adhesion and durability of substrates before laying ceramic tiles and natural stone with adhesives, GreenBuilding Rating® Eco 3, such as Aquastop Nanoflex® by Kerakoll Spa.

AquaExpert 2 System

Waterproofing for floor-wall joints and fractionizing/expansion joints – Supply and application of waterproof polypropylene-coated non-woven polyethylene tape with high levels of adhesion, such as Aquastop 100, to be secured with eco-friendly mineral adhesive such as H40® by Kerakoll Spa.

Substrate waterproofing – Certified supply and application of flexible, single-component, variable rheology, eco-friendly, breathable, anti-alkali and chlorine-resistant, mineral membrane with high levels of adhesion and durability of substrates before laying ceramic tiles and natural stone with adhesives, GreenBuilding Rating® Eco 3, such as Aquastop Nanoflex® in which to embed alkali-resistant 10 mm x 10 mm reinforcing mesh, such as Aquastop AR1 by Kerakoll Spa.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	light grey ready-mixed waterproofing product	
Apparent volumetric mass	1 kg/dm ³	
Mineralogical nature of inert material	silicate - crystalline carbonate	
Shelf life	≈ 12 months in the original packaging in dry environment	
Pack	20 kg bags with handle	
Mixing water	≈ 5 – 6 ℓ / 1 20 kg bag	
Viscosity	≈ 60,000 mPas · sec	
Specific weight of the mixture	≈ 1,5 kg/dm ³	UNI 7121
Pot life	≥ 1 hr	
Temperature range for application	from +5 °C to +35 °C	
Substrate residual humidity	≤ 4%	
Minimum total thickness	≥ 2 mm	
Maximum thickness per layer	≤ 1,5 mm	
Waiting time between 1st and 2nd coat	≥ 6 hrs	
Waiting time before laying the covering*	≥ 24 hrs	
Interval before normal use	≈ 7 days / ≈ 14 days (permanent water)	
Working temperature	from -20 °C to +90 °C	
Coverage	≈ 1,15 kg/m ² per mm of thickness	

Values taken at +23 °C, 50% R.H. and no ventilation.

(*) Thickness and weather conditions may extend these times considerably.

PERFORMANCE

VOC INDOOR AIR QUALITY (IAQ) - VOLATILE ORGANIC COMPOUND EMISSIONS

Conformity	EC 1-R plus GEV-Emicode	GEV certified 2353/11.01.02
HIGH-TECH		
Initial adhesion	≥ 2 N/mm ²	EN 14891-A.6.2
Adhesion after contact with water	≥ 1 N/mm ²	EN 14891-A.6.3
Adhesion after heat ageing	≥ 2 N/mm ²	EN 14891-A.6.5
adhesion after freeze-thaw cycles	≥ 1 N/mm ²	EN 14891-A.6.6
Adhesion on contact with lime water	≥ 1,5 N/mm ²	EN 14891-A.6.9
Adhesion on contact with chlorinated water	≥ 0,8 N/mm ²	EN 14891-A.6.7
Water-resistance	no penetration	EN 14891-A.7
Breathability (No. nanopores)	≥ 1 billion/cm ²	ASTM E128
Crack Bridging in standard conditions	≥ 0,75 mm	EN 14891-A.8.2
Crack Bridging at low temperatures (-5 °C)	≥ 0,75 mm	EN 14891-A.8.3
Conformity	CM 01P	EN 14891

Values taken at +23 °C, 50% R.H. and no ventilation.

WARNING

- **Product for professional use**
- abide by any standards and national regulations
- technological specifications and application information can be found in the AquaExpert Instructions
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll Worldwide Global Service +39 0536 811 516 - globalservice@kerakoll.com

The Eco and Bio classifications refer to the GreenBuilding Rating® Manual 2012. This information was last updated in April 2015 (ref. GBR Data Report - 05.15); 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.



KERAKOLL
The GreenBuilding Company

KERAKOLL S.p.a.
Via dell'Artigianato, 9 - 41049 Sassuolo (MO) Italy
Tel +39 0536 816 511 - Fax +39 0536 816 581
info@kerakoll.com - www.kerakoll.com