



AQUATUTOR® DRAINTech

Anti-fracture waterproofing membrane made of polyethylene for interior wall and floor applications. The polyethylene layer, coated on both sides with polypropylene non-woven fabric, provides the membrane with excellent mechanical strength and complete waterproofing performance.

Description

Waterproofing membrane consisting of an inner polyethylene layer coated on both sides with polypropylene non-woven fabric. This structure ensures excellent adhesion and stability of cement-based adhesives, providing maximum bond strength between the membrane and the substrate, as well as outstanding stability of the overlying floor covering.

The membrane acts as an anti-fracture and uncoupling layer, helping to protect floor coverings from cracks originating in substrates that are micro-cracked or not fully cured. It allows the uncoupling of screed movement joints from the expansion joints of the floor covering, enabling the installation of continuous tiled surfaces without the need to replicate the underlying screed control joints in the finished flooring.

Professional-use product.

Area of use

Indoor

Application

Waterproofing membrane suitable for the installation of ceramic tiles and natural stone coverings.

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Main features

- Complete waterproofing performance
- High tensile strength
- Anti-fracture capability, resistant to the opening of micro-cracks
- Reduces the transmission of stresses caused by thermal or mechanical movement from the substrate to the floor covering
- Waterproof polyethylene core coated on both sides with polypropylene non-woven fabric
- Ultra-thin waterproofing system
- Excellent alkali resistance
- Suitable for the direct installation of ceramic tiles and natural stone coverings
- Enhances the durability and reliability of tiled surfaces in demanding applications

Suitable for

Spa facilities and wellness centres, Changing rooms and locker rooms, Bathrooms, Shower enclosures, Laundry rooms, Technical and utility rooms, Laboratories

Compatible Substrates

Cast-in-place concrete, provided it is sufficiently cured and dry

Precast concrete

Traditional cement-based screeds and self-levelling screeds

Screeds incorporating underfloor heating and cooling systems

Existing ceramic tiles or natural stone coverings, provided they are sound and firmly bonded to the substrate

Gypsum plasterboard and fibre-cement boards

Gypsum-based and cement-based plasters

Gypsum plasterboard, gypsum-based plasters and anhydrite screeds must be treated with PRIMER IDROX at least 6 hours prior to the application of cement-based adhesives.

Substrate Requirements

Substrates must be fully cured, sound, compact, mechanically resistant, and dimensionally stable.

Surfaces must be clean and free from dust, dirt, grease, oils, resins, waxes, release agents, and cement laitance.

Maximum residual moisture content: 3%, to be verified using a carbide hygrometer in accordance with UNI 10329.

Unsuitable Substrates

Metal surfaces

Bituminous membranes

Polyurethane waterproofing membranes

Lightweight screeds or substrates with insufficient mechanical strength

Substrates affected by rising damp (capillary moisture)

Weak, friable, or unstable substrates

Substrates that are not firmly bonded to the underlying structure or base layer

Note: The substrate must be structurally sound and suitable for receiving the waterproofing membrane to ensure long-term performance of the flooring system.

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Compatible Adhesives

Cement-based adhesives (C) or Reaction resin adhesives (R)

Compatible Floor and Wall Coverings

Single-fired ceramic tiles, Double-fired ceramic tiles, Majolica tiles, Terracotta tiles, Stoneware tiles, Porcelain stoneware, Marble-effect porcelain stoneware, Clinker tiles, Natural stone, Marble, Cement tiles, Ceramic mosaics, Glass mosaics.

Suitable for both floor and wall installations.

Application Conditions

from +5°C to +35°C

Installation of the Membrane onto the Substrate

Using the smooth side of a stainless-steel trowel, apply an initial coat of a polymer-modified cementitious adhesive such as TEX (C2TE), ULTRAX or MAX (C2TE-S1), VELOX (C2FT-S1) or GENIUX (C2TE-S2) over a limited area of the substrate to ensure optimum adhesion.

Using a 5 mm square-notched trowel, spread the adhesive in a uniform layer, combing it in a direction parallel to the short side of the membrane. The adhesive ridges should be applied in parallel lines.

Lay the membrane onto the fresh adhesive, ensuring complete wetting of the membrane backing. Using a vibrating plate or roller, apply firm pressure working from the centre towards the edges, moving parallel to the short side of the membrane. This operation ensures the expulsion of trapped air, eliminates air pockets, wrinkles and bulges, and guarantees a perfectly flat membrane fully bonded to the adhesive.

Install subsequent membrane sheets edge-to-edge, following the same application procedure described above.

Installation of the Joint Sealing Tape

Using the smooth side of a stainless-steel trowel, apply an initial coat of DRAIN KOLL over the membrane, extending approximately 15 cm on either side of the joint between adjacent sheets to ensure proper adhesion.

Rework the adhesive using a 3 mm notched stainless-steel trowel to obtain a uniform 2 mm thick layer of DRAIN KOLL.

Place the DRAINROLL waterproof sealing tape onto the fresh adhesive. The tape is designed for bridging and sealing vertical and horizontal joints between adjacent membrane sheets, as well as corners and edges, ensuring complete waterproof continuity of the DRAINTECH membrane system.

Using a smooth stainless-steel trowel, firmly press the tape into the adhesive to ensure complete wetting, perfect bonding, and a flat, wrinkle-free finish.

Tape overlaps must be installed using the same procedure, providing a minimum overlap of 10 cm at all joints.

Installation of the Floor Covering

Depending on climatic conditions and the type of adhesive used, wait 6 to 48 hours before proceeding with the installation of the floor covering.

Using the smooth side of a stainless-steel trowel, apply an initial coat of a polymer-modified cementitious adhesive such as TEX (C2TE), ULTRAX or MAX (C2TE-S1), VELOX (C2FT-S1) or GENIUX (C2TE-S2) to ensure optimum adhesion.

The reported data refers to Quality Control tests in standard environmental conditions. Practical applications in the construction sites may detect significantly changed data, depending on operating conditions, so the information on the Card is only indicative because the user must always check its suitability for intended use of the product by taking responsibility for the use. Fornaci Calce Grigolin S.p.A. reserves the right to make technical changes of any kind without prior notice.

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Using a notched trowel with a notch size suitable for the tile format, spread the adhesive in a uniform layer. On underfloor heating systems, adhesive ridges should be applied parallel to the shortest side of the tile.

For indoor installations of tiles with a side length of 60 cm or greater, as well as for installations over underfloor heating systems, full adhesive coverage (100% bedding) is required. This shall be achieved using the buttering-floating method (double adhesive application), with adhesive applied both to the substrate and to the back of the tile.

Waiting Time Before Tile Installation

6 – 48 hours

Specification

Supply and installation of an anti-fracture waterproofing membrane consisting of a polyethylene core coated on both sides with non-woven polypropylene fabric, suitable for interior wall and floor applications.

The membrane shall be used for the waterproofing of bathrooms, shower enclosures, laundry rooms, technical rooms, wellness centres, laboratories and changing rooms on substrates such as cement-based and anhydrite screeds, concrete, fibre-cement boards, gypsum plasterboard, plasters and existing ceramic tile coverings.

The membrane shall be bonded to the substrate using a polymer-modified cementitious adhesive classified as C2TE (e.g. TEX), C2TE-S1 (e.g. ULTRAX or MAX), C2FT-S1 (e.g. VELOX) or C2TE-S2 (e.g. GENIUX).

The membrane shall be installed onto the fresh adhesive, ensuring complete wetting of the non-woven fabric backing. A vibrating plate or roller shall be used to apply firm pressure from the centre towards the edges, moving parallel to the short side of the membrane, in order to expel trapped air, eliminate air pockets, wrinkles and bulges, and ensure a perfectly flat membrane fully bonded to the adhesive.

Adjacent membrane sheets shall be installed edge-to-edge.

The joints between membrane sheets shall be sealed using DRAINROLL waterproof sealing tape bonded with DRAIN KOLL, a fibre-reinforced, fast-drying waterproof technical adhesive. Depending on climatic conditions and the type of adhesive used, a waiting time of 6 to 48 hours shall be observed before installing the floor or wall covering.

The ceramic or natural stone covering shall be installed using a polymer-modified cementitious adhesive classified as C2TE (e.g. TEX), C2TE-S1 (e.g. ULTRAX or MAX), C2FT-S1 (e.g. VELOX) or C2TE-S2 (e.g. GENIUX).

An initial coat of adhesive shall be applied using the smooth side of a stainless-steel trowel to ensure optimum adhesion to the polypropylene fabric surface. A second coat shall then be applied using a notched trowel with a notch size appropriate to the tile format, combing the adhesive parallel to the shortest side of the tile.

For indoor installations of tiles with a side length of 60 cm or greater, and for installations over underfloor heating systems, the tiles shall be installed using the buttering-floating method (double adhesive application) to ensure full adhesive coverage and complete bedding of the tiles.

Warnings

Apply only on substrates that are clean, sound, compact, fully cured, intact, dry (maximum substrate moisture content: 3%), sufficiently stable, and free from rising damp.

Smooth or wax-treated surfaces, as well as particularly smooth and non-absorbent substrates such as cement tiles, marble, natural stone and engineered stone, must be properly prepared by suitable mechanical abrasion prior to installation.

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Cracked substrates must be repaired by sealing the cracks with the two-component epoxy resin RIPARAMASS in order to restore the continuity and integrity of the substrate.

Before installation over existing tiled surfaces, thoroughly clean the substrate using an alkaline or acid cleaner to remove dirt, grease, waxes and other contaminants.

Uneven or non-planar substrates must be levelled and regularised prior to membrane installation to ensure perfect flatness and full adhesion of the membrane.

Gypsum plasterboards, gypsum-based plasters and anhydrite screeds must be treated with the insulating primer PRIMER IDROX at least 6 hours before the application of cementitious adhesives.

Smooth, non-absorbent cement-based substrates and existing ceramic tile coverings must be treated with PRIMER X, applied to full coverage at least 4 hours before the installation of the cementitious adhesive.

Highly porous and absorbent substrates, such as aerated concrete, must be treated with PRIMER IDROX as a consolidating primer at least 6 hours before installation.

Prepare the adhesive strictly according to the specified water dosage. Excess water may result in extended drying times and reduced mechanical performance.

Rising damp from the substrate may cause blistering or detachment of the membrane. Where necessary, the installation of a suitable vapour barrier should be evaluated.

Do not install over lightweight screeds or substrates with inadequate mechanical strength.

The membrane is not UV-resistant and is therefore not suitable for direct exposed applications.

Protect the membrane from rain, water exposure, frost and direct sunlight during the hours immediately following installation.

For all matters not expressly specified herein, reference shall be made to good construction practice and the applicable technical standards.

- UNI EN 13813 – Screed material and floor screeds – Screed materials – Properties and requirements.
- UNI EN 10329 – Installation of floor coverings – Measurement of moisture content in cementitious or similar substrates.
- UNI 11493-1 – Ceramic tiling for floors and walls – Part 1: Guidelines for design, installation and maintenance.
- UNI 11714-1:2018 – Natural stone cladding for horizontal, vertical and ceiling surfaces – Part 1: Guidelines for design, installation and maintenance.

Packaging

Rolls H = 1,0 m – L = 30 m

Storage

Store in a covered, dry area protected from heat sources, direct sunlight and frost.

Keep the product in its original packaging until use.

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TECHNICAL DATA	FEATURES
Color	Light blue fabric
Structure	Polypropylene non-woven fabric – Polyethylene – Polypropylene non-woven fabric
Weight	275 ± 20 g/m ²
Thickness	0,62 ± 0,1 mm
Width	1 m
Length	30 m

REQUIREMENTS (UNI 11493-1)	
Structural Joints	Structural joints must be strictly respected and therefore maintained unchanged through both the screed and the finished floor covering. They must not be bridged or covered with the AQUATUTOR® DRAINTECH membrane.
Perimeter Joint (UNI 11493-1)	Install the DRAINROLL waterproof sealing tape across the perimeter joint, bonding it with DRAIN KOLL adhesive. The tape shall be applied at a right angle, overlapping the DRAINTECH membrane, to ensure a continuous waterproof connection and effective sealing. At internal and external corners, use the appropriate preformed corner pieces (internal corner or external corner) to maintain the continuity and watertightness of the waterproofing system.
Movement Joints (UNI 11493-1)	External Flooring: Maximum uninterrupted area: 10 m ² Joint layout should create regular-shaped panels, such as: 3 × 3 m 4 × 2.5 m Internal Flooring: Maximum uninterrupted area: 25 m ² Joint layout should create regular-shaped panels, such as: 5 × 5 m 6 × 4 m

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