

AQUATUTOR® GRIGODRAIN 3

Studded waterproofing and uncoupling membrane for interior and exterior floor applications. The studded structure and the robust inner core create a fully independent flooring system, effectively uncoupling the floor covering from the substrate and preventing the transmission of stresses, movements and potential cracking from the substrate to the finished surface.

Description

Waterproofing and uncoupling membrane with a studded structure, consisting of a waterproof core layer coated on both sides with non-woven fabric. This construction ensures excellent adhesion and stability of cementitious adhesives, providing maximum bond strength between the membrane and the substrate while ensuring outstanding stability of the overlying floor covering.

The membrane acts as an effective uncoupling layer, protecting floor coverings installed over dimensionally unstable, highly stressed, cracked or insufficiently cured substrates.

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.

Its advanced lamination technology ensures a secure and long-lasting bond between the floor covering and the underlying substrate.

Professional-use product.

Area of use

indoor - outdoor

Application

Studded waterproofing and uncoupling membrane for the installation of ceramic tiles and natural stone coverings.

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Main Features

- Complete waterproofing performance
- High uncoupling capacity
- Resistant to crack opening
- Uncoupling effect on cracked substrates, preventing the transfer of unsightly cracks to the overlying floor covering
- Prevents the transmission of stresses caused by thermal expansion, shrinkage and mechanical movements
- Waterproof studded core layer coated on both sides with non-woven fabric
- Suitable for the direct installation of ceramic tiles and natural stone coverings
- Enhances the durability and long-term performance of tiled flooring systems installed over challenging substrates
- Ideal for applications requiring both waterproofing and crack-isolation performance

Intended Use

Balconies, terraces and flat roofs, Residential buildings, offices and public facilities, Spa facilities, wellness centres and changing rooms, Bathrooms and shower enclosures, Laundry rooms, Technical and utility rooms, Laboratories

Compatible Substrates

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

Traditional cement-based screeds and self-levelling screeds

Screeds incorporating underfloor heating and cooling systems

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

Anhydrite screeds, provided they are treated with a suitable insulating primer such as PRIMER IDROX at least 6 hours prior to installation of the membrane

Substrate Requirements

Substrates must be fully cured, compact and mechanically sound.

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

Maximum residual moisture content: 4%, 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 base or structure

Compatible Adhesives

Cementitious adhesives (C) or Reaction resin adhesives (R)

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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Compatible Floor 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

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 an 8 mm or 10 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 smooth side of the membrane onto the fresh adhesive, ensuring complete wetting of the non-woven fabric backing. Using a vibrating plate or roller, apply firm pressure 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 installation procedure described above.

Installation of the Joint Sealing Tape Between Adjacent Membrane Sheets

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 or 5 mm notched stainless-steel trowel to obtain a uniform 2–3 mm thick layer of DRAIN KOLL.

Place the GRIGOJOINT sealing tape onto the fresh adhesive.

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

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) over the cavity side of the membrane to ensure complete filling of the cavities.

Using a notched trowel with a notch size suitable for the tile format, spread the adhesive in a uniform layer, combing it parallel to the shortest side of the tile.

For all exterior installations, installations over underfloor heating systems, and indoor installations of tiles with a side length of 60 cm or greater, 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 to ensure complete support and optimum adhesion.

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Waiting Time Before Tile Installation

24-72 hours

Specification

Supply and installation of a studded waterproofing and uncoupling membrane consisting of a studded polyethylene core laminated on both sides with non-woven fabric, suitable for interior and exterior floor applications.

The membrane shall be used to protect floor coverings installed over dimensionally unstable, highly stressed, cracked or insufficiently cured substrates, and wherever it is necessary to uncouple screed movement joints from floor covering expansion joints, allowing the installation of continuous tiled surfaces without the need for interruption joints corresponding to the underlying screed joints.

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 smooth side of the membrane shall face the substrate and 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 GRIGOJOINT 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 24 to 48 hours shall be observed before installing the floor covering.

The polymer-modified cementitious adhesive used for the installation of the floor covering, classified as C2TE (e.g. TEX), C2TE-S1 (e.g. ULTRAX or MAX), C2FT-S1 (e.g. VELOX) or C2TE-S2 (e.g. GENIUX), shall first be applied to the studded surface of the membrane using the smooth side of a stainless-steel trowel to ensure complete filling of the cavities.

A second layer of adhesive 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, for installations over underfloor heating systems, and for all exterior installations, 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: 4%), 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.

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 contact with the membrane.

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

Smooth, non-absorbent cementitious 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

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cementitious adhesive.

To ensure optimum uncoupling performance, movement joints present in the screed or existing floor covering must not coincide with the joints between adjacent membrane sheets. The substrate joints must always be offset from the membrane joints.

Do not install on substrates exposed to direct sunlight, with standing water, or in the presence of ice or frost.

During hot weather or in windy conditions, lightly dampen the substrate, particularly when working on porous and highly absorbent surfaces.

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 deformation 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 intended for exposed applications and must always be covered by the final floor finish.

Protect the membrane from rain, water exposure, frost and direct sunlight for 24–48 hours after installation.

Always consult the Safety Data Sheet (SDS) before use to ensure the product is handled and applied safely and correctly.

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

Roll H = 1,0 m – L = 30 m

Storage

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

Keep the product in its original packaging and protect it from weather exposure during storage.

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TECHNICAL DATA	FEATURES
Color	White smooth side – Light blue studded side
Structure	Polypropylene non-woven fabric – Studded polyethylene membrane – Polypropylene non-woven fabric
Weight	550 ± 20 g/m ²
Stud Height	3 mm
Overall Membrane Thickness	3 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® GRIGODRAIN 3 membrane.
Perimeter Joint (UNI 11493-1)	Install the GRIGOJOINT waterproof elastic sealing tape across the perimeter joint, bonding it with DRAIN KOLL adhesive. The tape shall be applied at a right angle to the wall and overlapped onto the GRIGODRAIN 3 membrane to provide a continuous waterproof connection and effective sealing. At internal and external corners, install the appropriate preformed corner pieces (internal corner or external corner) to ensure 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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