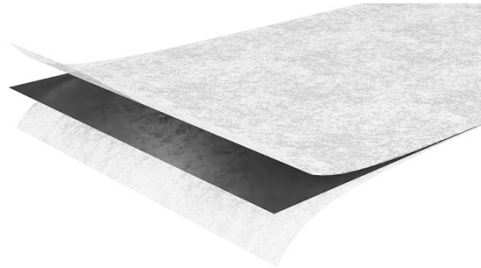

HydroProof Anti-Fracture

Technical Specifications



Pre-formed waterproofing and vapour barrier membrane in rolls for under-tile waterproofing in swimming pools, terraces, damp rooms and showers.

Product description

Pre-formed waterproofing and vapour barrier membrane in rolls for under-tile waterproofing in swimming pools, terraces, damp rooms and showers.

The HydroProof Anti-Fracture multi-layer technology consists of an elastic, waterproof polymer film made of modified polyethylene, coated on both sides with a non-woven fabric made of modified polypropylene with a high specific surface area.

The inclusion of this specific non-woven fabric ensures high levels of adhesion to substrates and during the installation of ceramic tile and natural stone cladding using the high-performance gels based on Litokol technology.

HydroProof Anti-Fracture is quick and easy to apply and provides immediate waterproofing; it guarantees maximum waterproofing reliability thanks to its consistent thickness and low vapour diffusivity (vapour barrier).

It retains its very high elasticity and waterproofing properties even at very low temperatures (-30°C).

For waterproof sealing of surface perimeters and the joints between membranes, use HydroBand Anti-Fracture tape and HydroCorner corners bonded with HydroBand Gel.

Complies with EN 13956

Certifications

EC1 Plus Gev Eimcode
A+ Indoor air emissions

Substrates

Screeds
Self-levelling compounds
Levelling Compounds
Plaster and skim coats
Existing tiles
Radiant heating systems
Concrete and reinforced concrete
Plasterboard
Plaster and anhydrite
Fibre-cement sheets
Lightweight panels

Uses

Interior – exterior
Floors – walls
Overlay
Swimming pools and fountains
Terraces and balconies
SPA and Hammam
Indoor wet areas (bathrooms, showers)
Facades
Industrial flooring
Residential, public, commercial building

Limitations

The ambient and surface temperature must be above 5°C at the time of installation and for 72 hours after application
Apply the coating to the membrane within 72 hours for external applications to avoid prolonged exposure to ultraviolet rays; alternatively, cover with sunshade sheets. For applications exposed to traffic and abrasion, cover with suitable protection against direct abrasion until the coating is applied
Do not apply to wet surfaces, damp substrates (> 3% moisture content) or those subject to rising damp
Do not apply if there is condensation on the surfaces
Do not apply to uneven or excessively rough substrates. Apply a skim coat with HydroLevel®
Do not use where negative hydraulic pressures are present
Do not use on wood surfaces that are not moisture-resistant
Do not leave the product exposed. Always provide a covering of ceramic tiles, natural stone or mosaics
Do not apply the product to bituminous membranes, rubber substrates or substrates treated with resins
Refer to national standards, such as UNI 11493

Product specifications

Composition	Multi-layer tape consisting of: - Modified polypropylene non-woven fabric covering - Waterproof, elastic polymer film made from modified polyethylene - Modified polypropylene non-woven fabric covering
Colour	White

Packaging	30 m roll
Width	100 cm
Effective waterproof width	100%
Weight	285 g/m ² +/- 54 g/m ²
Thickness	0.5 mm ± 0.1 mm
Shelf life	Unlimited when protected from direct sunlight
Customs heading	56021090

Technical Specifications

Longitudinal breaking load	120 N / 15 mm	DIN EN ISO 527-3
Longitudinal breaking load	390 N / 50 mm	ISO EN 527-3
Lateral breaking load	140 N / 50 mm	ISO EN 527-3
Longitudinal elongation at break	55%	ISO EN 527-3
Transverse elongation at break	130%	ISO EN 527-3
Longitudinal tear strength	65 N	EN 12310-2
Lateral tear resistance	140 N	EN 12310-2
Resistance to water pressure	> 1.5 bar	DIN EN 1928 – Version B
Water vapour resistance 'Sd'	> 50 m	ISO EN 12572
Reaction to fire	Class B2	EN 4102

Chemical resistance

Active ingredient	(+ = resistant / 0 = weakened / - = not resistant)	
3% hydrochloric acid	+	Internal method
35% sulphuric acid	+	Internal method
Citric acid 100 g/l	+	Internal method
5% lactic acid	+	Internal method
3% potassium hydroxide	+	Internal method
20% potassium hydroxide	+	Internal method
Sodium hypochlorite 0.3 g/l	+	Internal method
Salt water (20 g/l seawater)	+	Internal method
Alkalis	+	Internal method
Alkalis 28 days – 40°C – 3%	+	Internal method

Application Specifications

Permissible application temperatures	From +5°C to +35°C
Operating temperature	From -30°C to +90°C

Preparation of substrates

In accordance with standard UNI 11493-1, substrates and coatings based on concrete, cement and plaster must be adequately cured and must not show signs of excessive moisture emission, condensation, efflorescence or hydrostatic problems. Substrates must be mechanically sound and free from loose particles, grease, oil, paint, wax and rising damp. Cement-based plasters must be allowed to cure for at least one week per centimetre of thickness. Cement-based screeds must have a total curing time of at least 28 days or be laid using the innovative X-Floor® and X-Floor® Pro anti-crack screeds. Surfaces that are particularly dusty, porous and absorbent can be treated with X-Prime®, an innovative fixative and consolidant. Smooth, compact substrates, such as old ceramic tiles or terrazzo, must be treated with the specific detergent X-Cleaner® Scrub. In the case of anhydrite screeds, ensure that a suitable vapour barrier is in place to prevent any rising damp. Check using a carbide hygrometer that the residual moisture content is less than 0.5% and 0.3% for underfloor heating screeds. In any case, the

respective technical data sheets must be consulted for correct use of the indicated products.

Application

Laying the sheets

Cut the HydroProof Anti-Fracture membrane to size. For bonding, use high-performance gels based on Litokol technology; the choice of product depends on the type of substrate and the specific installation requirements. For guidance on selecting the correct gel to use and its application, please refer to the product data sheets. Apply the gel to the substrate using a suitable notched trowel (generally a 3.5 mm trowel is recommended); lay the membrane within the adhesive's open time and apply firm pressure with a smooth trowel with rounded edges or a specific membrane-pressing roller, working from the centre outwards to expel any excess adhesive and prevent the formation of creases or bubbles. The sheets must be laid side by side. Use the centimetre-marked edges for correct positioning. After installation, immediately protect the surface of the membrane from frequent foot traffic and direct abrasion using wooden boarding or panelling.

Sealing of membranes

It is not necessary to wait for the adhesive used to lay the membrane to set before sealing the joints between the sheets. Seal the joints between the membranes using HydroBand Anti-Fracture tape, bonding it to the membrane with HydroBand Gel, applied using a 3.5 mm notched trowel. After applying the adhesive, lay the tape whilst it is still wet, pressing it down with a smooth steel trowel with rounded edges, taking care to avoid creases or bubbles.

Alternatively, seal the joints between the sheets by bonding the tape with HydroPixel applied using a 2 mm notched trowel; lightly spray water onto the surface of the freshly applied sealant to promote rapid curing, then apply the tape, pressing it down with a smooth steel trowel with rounded edges to prevent the formation of creases or bubbles.

Perimeter sealing

At any internal or external corners, apply the special self-adhesive butyl corner pieces HydroCorner SA Internal and HydroCorner SA External: partially remove one of the two flaps of the protective liner and position the corner, applying firm pressure from the innermost point outwards to avoid the formation of creases or bubbles; then remove the other flap of the liner and complete the operation. Next, position the HydroBand SA Anti-Fracture tape along the entire floor-to-wall joint after cutting it to the desired length and overlapping it by at least 5 cm at the previously fixed internal and external corners. In this case too, partially remove the protective liner and secure the tape to the horizontal part of the joint, taking care to avoid creases or bubbles; remove the other half of the protective liner and secure the tape to the vertical part of the joint. HydroVabd SA Anti-Fracture must also be applied around the perimeter to seal the joint between the membrane and the base of any perimeter aluminium or steel profiles fitted with a drip edge.

Alternatively, apply the waterproof HydroBand Gel adhesive using a 3.5 mm notched trowel at the corners and install the HydroCorner Internal and HydroCorner External corner pieces: after applying the adhesive, position the special pieces, pressing them down with a smooth steel trowel with rounded edges to prevent the formation of creases or bubbles. Similarly, install the HydroBand Anti-Fracture sealing tape, pre-cut to size, onto the fresh layer of adhesive at all wall-to-wall and wall-to-floor junctions, overlapping it by a few centimetres at the corners

Sealing of penetrations

At drains and pipes, cut the Litoproof membrane to the required diameter. Where there are pipe penetrations, drains, spotlights, etc., fit the special HydroCollar and HydroDrain SA sealing components. For sealing pipework, install HydroCollar fittings of the appropriate diameter. Attach the seals to the HydroProof Anti-Fracture membrane using the HydroPixel MS polymer-based hybrid adhesive, applied with a 2 mm notched trowel. After applying the hybrid adhesive, lightly spray water onto the surface to promote rapid curing and apply the seals, pressing them down with a smooth steel trowel with rounded edges to prevent creases or bubbles from forming. Alternatively, fix the seals to the membrane using HydroBand Gel adhesive applied with a 3.5 mm notched trowel: after applying the adhesive, apply the seals, pressing them down with a smooth steel trowel with rounded edges to prevent creases or bubbles from forming. Floor drains must be sealed with the self-adhesive butyl sheet HydroDrain SA, which is bonded directly to the HydroProof Anti-Fracture membrane after cutting a central hole with a cutter to match the diameter of the drain.

As an alternative to using gaskets, to seal pipes and through-walls in general that are irregular in size and/or shape, create a connecting bead between the element and the waterproof membrane using the ready-to-use HydroPixel sealant.

After installation, immediately protect the surfaces from frequent foot traffic and direct abrasion using wooden boarding or panelling. Please consult the technical data sheets for the specified products in advance before use.

Flooring installation

The installation of ceramic tiles, natural stone or mosaics shall be carried out using high-performance gels based on Litokol technology, which guarantee complete force transfer, consistent system performance and total safety. To ensure perfect adhesion of the adhesive gel to the HydroProof Anti-Fracture membrane, apply a thin, even coat of the mixture using the smooth side of the trowel and, immediately afterwards, apply the desired thickness using the notched side. In accordance with the UNI 11493-1 standard, use the double-coating technique, applying the gel to the back of the tiles as well to ensure they are fully saturated during installation in areas where the substrate may be subject to movement or expansion, outdoors, in swimming pools or in areas subject to particularly high stress. In accordance with the UNI 11493-1 standard, tiles must be laid with joints of a width appropriate to their size (minimum 2 mm). For grouting in swimming pools, outdoors and in damp areas, we recommend using Starlike® Pro or Starlike® Easy. Take account of any partition or structural joints and provide suitable expansion, partition and perimeter joints.

Warnings

Protect the waterproofing from heavy rain for the first 12 hours after application

Do not use for applications not listed on this technical data sheet

For further information, please contact Litokol's Technical Customer Service on +39-0522-622811 or via customercare@litokol.com

For the safe use of our products, please refer to the latest version of the

Safety Information

Safety Data Sheet, available at www.litokol.com
PRODUCT FOR PROFESSIONAL USE

Legal notices

The information and specifications set out in this technical data sheet are based on our best experience. However, as we are unable to directly influence site conditions or the execution of the works, these are general guidelines which do not in any way bind our Company. We therefore recommend carrying out a preliminary test to verify the product's suitability for the intended use; in any case, anyone intending to use it is required to determine whether or not it is suitable for the intended use and, in any event, assumes all liability that may arise from its use. Always refer to the latest updated version of the Technical Data Sheet, available on the website www.litokol.com

Specification item

The waterproofing of swimming pools, baths, fountains, terraces, balconies, showers, spas, hammams and damp areas where ceramic tiles, natural stone and mosaics are to be laid subsequently must be carried out using a pre-formed waterproofing and vapour barrier membrane in rolls, certified to EN 13956, type HydroProof Anti-Fracture by Litokol Lab SpA.

Product details **No. 641**

Revision **No. 0 No. 0**

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