

G-tex Active

FPO GEOMEMBRANE, WATERPROOF, UNCOUPLING, ELASTIC, FLEXIBLE, DEFORMABLE, WITH CRACK-BRIDGING ABILITY AND DIMENSIONAL STABILITY BETWEEN -40 °C AND +80 °C, FOR WATERPROOFING AND UNCOUPLING IN SHOWER ENCLOSURES, BATHROOMS, WELLNESS AREAS, BALCONIES AND TERRACES BEFORE INSTALLATION OF CERAMIC, PORCELAIN STONEWARE, CERAMIC AND GLASS MOSAICS, NATURAL STONE, RECONSTRUCTED STONE, RESILIENT, PROTECTIVE AND DECORATIVE MATERIALS.



TECHNICAL DATA SHEET - REVISION 01/2024

DESCRIPTION

G-TEX ACTIVE is a multilayer polymeric geomembrane with exclusive technology composed of:

- ♦ FPO: double layer of Flexible PolyOlefin + EVA (Ethylene Vinyl Acetate), with permanent elasticity and variable geometry that compensates for and absorbs dimensional variations of substrates;
- ♦ NWF: Non-Woven Fabric (alkali-resistant polyester fibres) that ensures high adhesion with specific GEODRY adhesives and high tensile strength.

G-TEX ACTIVE is able to compensate for the thermal and physical-mechanical stresses to which it is subjected without altering its characteristics.

G-TEX ACTIVE is waterproof, elastic and deformable, with crack-bridging ability, resistant to mechanical stress, temperature variations, bacterial attack, mould and moss growth, root penetration, hydrocarbons and alkalis.

G-TEX ACTIVE allows waterproofing and uncoupling systems to be created in shower enclosures, bathrooms, wellness areas and balconies (provided there are no movement joints), before installation of any type of ceramic, protective or decorative covering. It ensures continuity of substrate waterproofing even in the presence of surface cracks, limiting them without deteriorating. Its elasticity enables uncoupling (separation) between the various layers, preventing movements and vibrations from being transmitted to the upper layers.

Thanks to its elasticity, flexibility and low thickness (0,52 mm), G-TEX ACTIVE is ideal for waterproofing even particularly complex architectural surfaces such as columns, beams, stairs and sills.

Complies with European Standard EN 13956 ("Flexible sheets for waterproofing - Plastic and rubber sheets for roof waterproofing").

APPLICATION AREAS

G-TEX ACTIVE, used in GEODRY waterproofing systems, allows under-tile waterproofing and uncoupling between the various layers at the minimum possible thickness (2,5 mm - 3,5 mm), including over existing old floors or cracked substrates.

Designed to guarantee perfect long-term watertightness, it is used for horizontal and vertical applications, both indoors (shower enclosures, bathrooms, wellness areas, radiant heating systems) and outdoors (balconies, columns, beams, stairs, sills).

Its multilayer structure, which ensures high adhesion with specific GEODRY adhesives, makes it particularly suitable as a substrate for laying a wide range of finishing materials such as ceramic, porcelain stoneware, ceramic and glass mosaics, natural stone, reconstructed stone, resilient materials (PVC, rubber, carpet, parquet, linoleum), plastic materials, rubber, wood, protective and decorative materials.

G-TEX ACTIVE is also ideal for continuous waterproofing of small and medium-sized balconies and terraces before the installation of any raised/technical flooring system.

SUBSTRATES

Cementitious screeds, radiant heating systems, concrete, plasters, plasterboard, aerated concrete, fibre-cement boards, metal surfaces, thermal-insulation panels after skim coating (EPS, XPS, rock wool, glass wool, cork, wood fibre), OSB (Oriented Strand Board) panels, wood, wood flooring, ceramic flooring, natural stone, reconstructed stone, metal, rubber, resilient materials (PVC, rubber, carpet, parquet, linoleum), glass mosaics, ceramic mosaics, cementitious membranes, polymeric membranes, elastomeric membranes, polyurethane membranes, decorative coatings.

SUBSTRATE PREPARATION

The substrate to be waterproofed must comply with the requirements of UNI 11493 regarding curing, integrity, mechanical and surface strength, dimensional regularity, moisture and absence of contaminants. Regardless of substrate type, for correct waterproofing, properly consider all details such as drain positioning, regularization of floor-to-wall connection points and both internal and external corners.

Cementitious screeds

Provide suitable slopes and any drains required for correct water run-off. Cementitious screeds must have completed hygrometric shrinkage, considered to be at least 28 days, and must be dry with moisture content below 4%, flat, solid, compact, free from loose parts, dust, grease and any material that could impair perfect adhesion of G-TEX ACTIVE.

Level any irregularities using specific GEODRY products.

Very porous, absorbent and surface-chalking substrates must be consolidated with GEODRY AQUAGRIP water-based adhesion promoter.

Ceramic flooring

The flooring must be sound, resistant, well bonded, dry and clean of residues from previous work and anything that may impair adhesion, such as oils, grease and waxes.

Remove any loose tiles and level the surface with specific GEODRY products.

For correct cleaning, wash the old flooring with a solution of water and caustic soda (30%) and rinse thoroughly with water to remove all residues.

Concrete

Concrete surfaces must be compact, cured, solid, dry, clean, free from loose parts, dust and traces of release oils.

Where degraded concrete structures are present, remove the detached concrete (hydro-sandblasting or high-pressure water washing is recommended). Clean oxidation from the reinforcing bars and, for their active and passive protection, treat with GEOFER 1 K single-component mineral mortar or GEOFER 2 K two-component mineral mortar. Rebuild the original concrete volumes and level the surface with fibre-reinforced mineral mortars from the GEODRY GEOGROUT range.

At high temperatures or on particularly dry substrates, it may be useful to dampen the concrete before applying the adhesive.

Plasters

Plasters must have completed hygrometric shrinkage and be sufficiently flat, cured, dry, solid, consistent and mechanically resistant at the surface. Any finishing skim coats or old paint must be removed so as not to compromise adhesion of the system. Excessively porous and chalking surfaces must be suitably treated and consolidated with specific GEODRY products.

Metal surfaces

Metal surfaces must be dry and clean, free from residues from previous work and anything that could impair adhesive anchoring, such as oils, grease and waxes. As these are special substrates and difficult to classify, always contact the GEODRY TECHNICAL ASSISTANCE SERVICE and/or request an on-site inspection.

APPLICATION

Waterproofing of shower enclosures, bathrooms and wellness areas

a) Waterproofing of vertical walls

1. Mix AQUABOND EXTRAFLEX adhesive with water, specifically for bonding G-TEX geomembranes to cementitious substrates, following the product preparation method described in the relevant Technical Data Sheet.
2. Cut and shape G-TEX ACTIVE to the dimensions of the walls, allowing an overlap of at least 10 cm with the geomembrane to be installed on the floor and a 10 cm overlap between adjacent G-TEX ACTIVE sheets, for complete wall coverage.
3. Apply AQUABOND EXTRAFLEX to the walls with a 6 mm notched trowel, keeping the adhesive ridges in a single direction, coinciding with the laying direction of G-TEX ACTIVE.
4. Bond G-TEX ACTIVE over the entire surface onto the still-fresh adhesive layer, taking care not to seal either the overlaps between sheets or the flap turned onto the horizontal surface at this stage. Press the geomembrane surface with a smooth trowel in the direction of the adhesive ridges to expel any air bubbles and ensure perfect adhesion.

b) Waterproofing of the horizontal substrate

5. Pre-position and seal the drain channel selected from the AQUA-GO LINEAR REVERSE or AQUA-GO SQUARE range, providing the correct slopes taking into account the thickness of the intended ceramic covering.
6. Spread AQUABOND EXTRAFLEX over the surface with a 6 mm notched trowel, keeping the adhesive ridges in a single direction, coinciding with the laying direction of G-TEX ACTIVE.
7. Open the geomembrane heat-welded to the drain, laying it on the still-fresh sealant, turning it up onto the vertical walls and bonding the upstand with the same AQUABOND EXTRAFLEX. If the dimensions of the geomembrane heat-welded to the drain are insufficient for full coverage of the horizontal surface, continue bonding additional G-TEX ACTIVE sheets, following the installation methods described.
8. Press the geomembrane surface with a smooth trowel in the direction of the adhesive ridges, to expel any air bubbles and ensure perfect adhesion.
9. Once G-TEX ACTIVE has been installed, seal all overlaps between G-TEX geomembranes: ensure that the overlap edges are free from dust, cement residues or any material that could compromise perfect sealing. Apply AQUAFIX ULTRA (A+B) two-component adhesive with a 3 mm triangular-notched trowel, specifically for bonding and sealing G-TEX geomembrane overlaps. With a smooth trowel, apply adequate pressure along the full length of the seals so that no air bubbles remain and perfect sealing is achieved, carefully removing any excess product squeezed out.
10. Treat internal and/or external corners by positioning and bonding, with AQUAFIX ULTRA (A+B), G-TEX STRIP 90 or G-TEX STRIP 270 waterproof corner tapes, specifically for sealing floor-to-wall connections at 90° and 270° corners respectively.
11. When waterproofing is complete, use the same AQUABOND EXTRAFLEX to install the ceramic covering in accordance with UNI 11493 (Ceramic tiling on floors and walls - Instructions for design, installation and maintenance). Lay the flooring with joints at least 2 - 3 mm wide depending on tile size (UNI 11493 clause 7.10.2).

Waterproofing of small and medium-sized surfaces (where there are no movement joints in the screed)

1. Mix AQUABOND EXTRAFLEX adhesive with water, specifically for bonding G-TEX geomembranes to cementitious substrates, following the product preparation method described in the relevant Technical Data Sheet.
2. Pre-position and seal drainage systems such as G-DRAIN outlets, AQUA-GO LATERAL side drains or AQUA-GO VERTICAL vertical drains, providing the correct slopes taking into account the thickness of the intended ceramic covering.
3. Waterproof the surface by applying AQUABOND EXTRAFLEX to the substrate with a 6 mm notched trowel, keeping the adhesive ridges in a single direction, coinciding with the laying direction of G-TEX ACTIVE.
4. Bond G-TEX ACTIVE over the entire surface onto the fresh adhesive layer and press the geomembrane with a smooth trowel in the direction of the adhesive ridges, to expel any air bubbles and ensure perfect adhesion. Overlap adjacent sheets by at least 10 cm.
5. At previously installed drains and outlets, use AQUAFIX ULTRA (A+B) two-component adhesive to seal G-TEX ACTIVE where it overlaps the geomembrane heat-welded to the drain element.
6. At floor-to-wall connections, turn the geomembrane up the walls by at least 10 cm and bond the upstand with AQUABOND EXTRAFLEX, leaving G-TEX ACTIVE free of adhesive for 1 cm before and after the floor-to-wall connection. Where G-TEX ACTIVE cannot be turned up, use G-TEX STRIP H 20 waterproof tape: bond the edge in contact with the wall using AQUABOND EXTRAFLEX, while the tape edge overlapping the geomembrane laid on the floor must be bonded with AQUAFIX ULTRA (A+B) two-component adhesive.
7. Once G-TEX ACTIVE has been installed, seal the overlaps between adjacent geomembranes. Ensure that the surfaces of the overlapping edges are free from dust, cement residues or any material that could compromise perfect sealing. Apply the two-component adhesive

AQUAFIX ULTRA (A+B). With a smooth trowel, apply adequate pressure over the full length of the seals, so that no air bubbles remain and perfect sealing is achieved, carefully removing excess product squeezed out from the seal.

8. Treat internal and/or external corners by positioning and bonding with AQUAFIX ULTRA (A+B) the shaped G-TEX STRIP 90 or G-TEX STRIP 270 waterproof tapes, specifically for sealing floor-to-wall connections at 90° and 270° corners respectively.

9. When waterproofing is complete, use the same AQUABOND EXTRAFLEX to install the ceramic covering in accordance with UNI 11493 (Ceramic tiling on floors and walls - Instructions for design, installation and maintenance). Lay the flooring with joints at least 2 - 3 mm wide depending on tile size (UNI 11493 clause 7.10.2).

10. If no ceramic covering is planned, always provide protection for the waterproofing layer.

■ Butt-joint installation of G-TEX ACTIVE

G-TEX ACTIVE may also be installed edge-to-edge. In this case, bring adjacent sheets as close together as possible and seal the butt joints using G-TEX STRIP H 12 waterproof tape bonded with AQUAFIX ULTRA (A+B).

■ Waterproofing of surfaces requiring rapid commissioning

When rapid return to service is required, install G-TEX ACTIVE with AQUABOND RAPID, a rapid-setting adhesive with gel-sol-gel effect, variable rheology, high hydrophilicity, high performance, no vertical slip and total wetting, classified C2FT S1 according to EN 12004. The adhesive may also be used for subsequent installation of ceramic tiles, including large-format tiles, and is walkable 3 hours after installation.

■ Waterproofing of non-absorbent, metal, treated wood or particularly water-sensitive surfaces

For waterproofing non-absorbent, metal, treated wood or particularly water-sensitive surfaces, install G-TEX ACTIVE with AQUAFIX ULTRA (A+B) two-component adhesive. As these are special substrates and difficult to classify, it is still advisable to always contact the GEODRY TECHNICAL ASSISTANCE SERVICE and/or request an on-site inspection.

YIELD

Overlapping installation: 1,07 m² per m² of surface to be waterproofed.
Butt-joint installation: 1,00 m² per m² of surface to be waterproofed.

RECOMMENDATIONS

- ◆ Do not use on substrates and bases that are not fully cured and with residual moisture $\geq 4\%$; in this case contact the GEODRY TECHNICAL ASSISTANCE SERVICE for correct positioning of the ESALATORE element or consult the relevant Technical Data Sheet.
- ◆ Install the geomembrane in the direction of the surface slope and water run-off, always starting from the lowest point (near the drain) and working upward.
- ◆ When sealing overlapping G-TEX geomembrane edges or treating G-TEX accessories, do not smear AQUAFIX ULTRA (A+B) outside the edges to be sealed; carry out the work as cleanly as possible.
- ◆ Bonding the geomembrane near any technical installations present (such as external downpipes or railings) made of steel, metal, plastic materials, PVC or other elements must be carried out with AQUAFIX ULTRA (A+B), finishing the edge seal with AQUAFIX HYBRID adhesive. When the work is complete, always carefully check that all critical points have been correctly treated and sealed. Any holes or perforations must always be sealed with AQUAFIX HYBRID sealing adhesive.
- ◆ Store in the original closed packaging at a maximum temperature of +30 °C.
- ◆ Protect from direct exposure to UV rays.

PACKAGING

G-TEX ACTIVE is supplied in rolls on a cardboard tube wrapped in heat-sealed polyethylene, in the following sizes:

- ◆ 6 m² (5 m long x 1,20 m wide);
- ◆ 30 m² (25 m long x 1,20 m wide).

SPECIFICATION ITEM

FPO geomembrane, waterproof, uncoupling, elastic, flexible, deformable, with crack-bridging ability and dimensional stability between -40 °C and +80 °C, type G-TEX ACTIVE by the GEODRY brand of Colmef Srl., specifically for waterproofing and uncoupling shower enclosures, bathrooms, wellness areas, balconies and terraces before laying ceramic, porcelain stoneware, ceramic and glass mosaics, natural stone, reconstructed stone, resilient, protective and decorative materials. The geomembrane shall meet the minimum requirements of EN 13956 for "Flexible sheets for waterproofing", comply with the chemical resistance of plastic membranes to the most common chemicals and be completely intact and free from visible defects according to EN 1850-2. The substrates shall be clean, sound, degreased, free from loose or detached parts, with suitable slopes to ensure correct water run-off (to be measured separately).

G-TEX ACTIVE shall be bonded to the substrate using a mineral Gel-Sol-Gel effect adhesive, classified C2TE S1 according to EN 12004, type AQUABOND EXTRAFLEX by the GEODRY brand of Colmef Srl. All overlaps between G-TEX geomembranes shall be sealed with a two-component adhesive, type AQUAFIX ULTRA (A+B) by the GEODRY brand of Colmef Srl.

Once waterproofing is complete, the surface shall be suitably protected with a bonded covering using a mineral Gel-Sol-Gel effect adhesive, classified C2TE S1 according to EN 12004, type AQUABOND EXTRAFLEX by the GEODRY brand of Colmef Srl, in accordance with UNI 11493 (supply and installation of ceramic covering to be measured separately).

Where no ceramic covering is used, the waterproofing shall be protected by applying a waterproof membrane.

TECHNICAL DATA

Length (m):	5 and 25
Width (m):	1,20
Weight (g/m²):	350
Thickness (mm):	0,52
Service temperature:	from -40 °C to +80 °C

FINAL PERFORMANCE according to EN 13956

	Requirements	Results	Test method
Watertightness:		Approved	EN 1928 Met. B
Tensile strength (N/50 mm):	MLV L $\geq$ 395 MLV T $\geq$ 130	L = 395 T = 130	EN 12311-2 Met. A
Elongation (%):	MLV L $\geq$ 23 MLV T $\geq$ 190	L = 23 T = 190	EN 12311-2 Met. A
Overlap shear resistance (N/50 mm):	MLV $\geq$ 110	110	EN 12317-2
Static load resistance (kg):	MLV $\geq$ 20	20	EN 12730 Met. B
Flexibility at low temperatures (°C):	MLV $\geq$ -40	-40	EN 495-5
Fire resistance:	Euroclass	F	EN 13501-1
Visible defects:		Approved	EN 1850-2
Straightness (mm):	g $\leq$ 50	g = 50	EN 1848-2
Flatness (mm):	p $\leq$ 10	p = 10	EN 1848-2
Dimensional stability (%):		L = -0,2 T = 0	EN 1107-02
Effects of chemicals in saturated Calcium Hydroxide solution at +23 °C:	Values unchanged after 28 days		EN 1847
Water vapour diffusion resistance (m²·h·Pa/mg):		9,75	UNI EN 1931:2001

MLV = Declared limit value

Other characteristics	Requirements	Results	Test method
Water resistance of overlaps:		Watertight	Water column
Adhesion of AQUABOND EXTRAFLEX over G-TEX ACTIVE: TENSILE (N/mm ²)		0,9	Met. CSTB
Adhesion of AQUABOND EXTRAFLEX over G-TEX ACTIVE: SHEAR (N/mm ²)		1,28	Met. CSTB
Impact resistance with ball on ceramic flooring (No. of impacts):		4	Met. CSTB

The statements are valid for an ambient temperature of +23 °C with a test period of 28 days.

CHEMICAL RESISTANCE

Excerpt from Table C.1 in APPENDIX C of EN 13956, concerning the chemical resistance of plastic membranes to the most common chemicals (the concentration % represents the concentration limit up to which polymeric materials are resistant; for exposure to higher concentrations or to chemicals not listed in the table, specific tests must be carried out according to EN 1847; please contact the COLMEF TECHNICAL ASSISTANCE SERVICE).

Substance	Concentration %
INORGANIC ACIDS	
Sulfuric acid	≤ 25
Sulfurous acid	≤ 6
Nitric acid	≤ 5
Hydrochloric acid	≤ 10
ORGANIC ACIDS	
Benzoic acid	No limit
Acetic acid	≤ 10
Oxalic acid	No limit
Phthalic acid	No limit
Tartaric acid, aqueous	No limit
Citric acid, aqueous	No limit
INORGANIC BASES	
Sodium hydroxide	≤ 10
SALINE SOLUTIONS	
Chlorides	No limit
Nitrates	No limit
Sulfates	No limit
Surfactant solutions	No limit

The statements are valid for an ambient temperature of +23 °C with a test period of 28 days.

The information and instructions given above are based on our best experience. However, we cannot accept any responsibility for improper use of the products. We therefore recommend that users assess whether the product is suitable for the intended use and in all cases carry out preliminary tests. Always refer to the latest updated version of the Technical Data Sheet, available at www.colmef.com.

FOR MORE INFORMATION OR SPECIAL USES, CONSULT COLMEF TECHNICAL ASSISTANCE SERVICE.

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