

G-TEX Airfull

PREFABRICATED MULTILAYER SYNTHETIC FPO MEMBRANE, WATERPROOF, DECOUPLING, WITH VAPOUR DIFFUSION CONTROL, ANTI-FRACTURE, ELASTIC, FLEXIBLE, WITH CRACK-BRIDGING ABILITY AND DIMENSIONAL STABILITY FROM -40 °C TO +80 °C, SUITABLE FOR ANY TYPE OF SUBSTRATE, INCLUDING CRACKED SUBSTRATES, FOR WATERPROOFING SWIMMING POOLS, TANKS, RESERVOIRS, FLAT ROOFS, TERRACES AND SURFACES OF ANY TYPE AND SIZE, PRIOR TO TILING.



TECHNICAL DATA SHEET - REVISION 11/2025

ADVANTAGES

The use of G-TEX AIRFULL membrane provides:

- safe and guaranteed waterproofing
- decoupling between rigid layers
- anti-fracture capability for new tiling
- easy and fast application
- high diffusion of vapour pressure
- installation on substrates that are not fully cured
- simplified management of expansion joints
- high elasticity and crack-bridging ability
- reduced thicknesses: specifically suited to renovation work

DESCRIPTION

G-TEX AIRFULL is an exclusive-technology multilayer polymer membrane composed of:

- **FPO:** double layer of Flexible Polyolefins + EVA (Ethylene Vinyl Acetate), with permanent elasticity and variable geometry that compensates for and absorbs dimensional changes in substrates;
- **TNT:** alkali-resistant polyester-fibre Non-Woven Fabric that provides high adhesion to specific C2 TE S1 adhesives and high tensile strength;
- **TNT/S:** polypropylene Non-Woven Fabric that provides high vapour diffusion.

G-TEX AIRFULL is waterproof, decoupling, anti-fracture, elastic, flexible and deformable, with high crack-bridging ability and high resistance to mechanical stress, temperature variations, bacterial attack, mould and moss growth, hydrocarbons and alkalis, and is root-resistant.

Specifically, G-TEX AIRFULL reduces the transmission of stresses caused by substrate movement (decoupling), preventing cracks from appearing in the overlying tiling (anti-fracture). It therefore ensures continuity of substrate waterproofing even in the presence of surface cracks, preventing their propagation to the surface, including on substrates that are not fully cured and have residual moisture not exceeding 5%.

Its elasticity allows decoupling between the tiling and the substrate, preventing the transmission of movements and vibrations to the upper layers.

G-TEX AIRFULL allows waterproofing and decoupling systems to be installed on swimming pools, tanks, roofs, flat roofs, terraces and surfaces of any size, including surfaces subject to possible vapour pressure, before laying ceramic finishes.

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

FIELDS OF APPLICATION

G-TEX AIRFULL, used in GEODRY waterproofing systems for both restoration/renovation work and new construction, allows under-tile waterproofing and decoupling between the various layers with minimum total thicknesses (2.5 mm - 3.5 mm), including installation over existing old floors or cracked substrates.

Designed to ensure long-term watertightness and decoupling between layers, G-TEX AIRFULL is used to waterproof horizontal and vertical surfaces before laying new tiling on:

- flat roofs, terraces and balconies, including large areas and areas with control and expansion joints and possible vapour pressure;
- swimming pools, collection tanks and fountains;
- SPAs and wellness centres;
- decoupling and anti-fracture surfaces in commercial and industrial areas, hospitality facilities and hospitals.

Its multilayer structure, which provides high adhesion thanks to specific GEODRY adhesives, makes it particularly suitable as a substrate for a wide range of materials such as ceramic, porcelain stoneware, ceramic mosaics, glass mosaics, natural stone, reconstructed stone and liquid membranes.

SUBSTRATES

G-TEX AIRFULL membrane can be applied to the following substrates:

- cement screeds (including cracked or not fully cured screeds)
- concrete surfaces
- existing ceramic, natural stone, reconstructed stone, glass mosaic and ceramic mosaic floors
- underfloor heating systems
- fibre-cement boards
- cementitious renders

For other types of substrate, contact the COLMEF TECHNICAL SERVICE.

SUBSTRATE PREPARATION

The substrate to be waterproofed must comply with the requirements of UNI 11493-1 ("Ceramic floor and wall tiling - Part 1: Instructions for design, installation and maintenance") with regard to curing, integrity, mechanical and surface strength, dimensional regularity, moisture and absence of contaminants.

Regardless of the type of substrate, correct waterproofing requires careful study, design and application of all construction details, such as drain positioning, regularisation of floor-to-wall junctions, 90° and 270° corners, and treatment of any existing structural joints.

Cement screeds

For external surfaces, provide suitable slopes (not less than 1.5-2%) and any necessary drains to ensure correct water run-off.

Cement screeds must be sufficiently cured and dry, with residual moisture below 5%, flat, sound, compact, free of weak parts, dust, grease and any material that could impair the perfect adhesion of G-TEX AIRFULL.

When cleaning substrates, avoid degreasers/descalers and do not use pressure washing, so as not to increase the moisture contained in the screed pores. Mechanical abrasion with a suitable grinder is recommended where necessary, followed by vacuuming of residues and final cleaning with a damp cloth suitable for horizontal surfaces.

The substrates must have mechanical strength suitable for the safe and durable installation of the waterproofing system and tiling, in accordance with the intended final use.

Regularise any irregularities using specific COLMEF products certified to EN 13813, for thickness build-ups from 1 to 40 mm.

Very porous, absorbent or friable surfaces must be pre-treated with a consolidating agent and/or adhesion promoter.

Concrete

Concrete surfaces must be compact, sufficiently cured, sound, dry and clean, and free of weak parts, dust and traces of release oils.

The substrates must have mechanical strength suitable for the safe and durable installation of the waterproofing system and tiling, in accordance with the intended final use.

Where concrete structures are deteriorated, remove all loose concrete (mechanical action, hydro-sandblasting or high-pressure water washing is recommended). Clean the reinforcement bars by brushing or shot blasting and, for active and passive protection, treat them with BETOFER 1 K one-component mineral mortar. Rebuild the concrete volume and regularise the surface with fibre-reinforced mineral mortars from the BETOCEM range, certified to EN 1504.

Especially at high temperatures or on particularly dry substrates, always dampen the concrete before applying the adhesive.

Ceramic flooring

Floors must be intact, resistant, firmly bonded to the substrate, dry and clean of residues from previous work and anything that could impair adhesion, such as oils, grease and waxes.

Remove any tiles that are coming loose (after a tapping test) and regularise the surface using specific COLMEF products certified to EN 13813, for thickness build-ups from 1 to 40 mm.

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

Existing bituminous membranes

G-TEX AIRFULL cannot be applied directly over existing bituminous membranes, whether smooth or slate-finished. Only where the design levels allow it and the additional loads can be supported by the existing structure, after suitable cleaning and any necessary checking and repair of the bituminous membranes, first apply a separating layer of bituminous felt paper or, alternatively, a micro-perforated polyethylene sheet. Then install a reinforced floating cement screed at least 40 mm thick. Once the screed has cured, bond G-TEX AIRFULL as described below.

For any other substrate types not described in this Technical Data Sheet, contact the COLMEF TECHNICAL SERVICE, which will assess system suitability and provide all technical instructions required for safe and durable installation.

APPLICATION

WATERPROOFING OF TILED SWIMMING POOLS AND TANKS

This section deals exclusively with the procedure for internal waterproofing (positive water pressure) of reinforced-concrete swimming pools. For any other solution, contact the COLMEF TECHNICAL SERVICE.

a) Preliminary operations

1. Before waterproofing vertical and horizontal surfaces, always provide a suitable shading/covering system over the entire pool surface to be waterproofed, in order to prevent problems caused by UV rays, weather, etc. throughout the works.
2. If existing concrete surfaces must be regularised or levelled, apply suitable high-adhesion cementitious levelling mortars (such as COLMEF RASOTECH PLUS), CE certified to EN 1504, for thicknesses from 1 to 30 mm.
3. Pre-treat, according to the manufacturer's instructions, the built-in elements specified by the design, such as skimmers, lights, drains and PVC, steel or aluminium pipes, or other elements. In particular, form a dovetail-shaped recess at 45° from the outside towards the inside (approximately 3-4 cm at the surface, tapering to almost zero in depth, for an excavation depth of about 3-4 cm). After suitable cleaning, it is recommended to seal the concrete/component interface in depth by extruding a specific hydro-expansive sealant, then fill the recess with a two-component thixotropic epoxy mortar certified to EN 1504. Then, using G-TEX ACTIVE membrane, cut reinforcement/connection flanges at least 10-15 cm larger than the element to be waterproofed (rounding off any 90° corners), with a suitable central opening. Bond these flanges with AQUAFIX ULTRA (A+B), the two-component reactive adhesive for bonding and sealing G-TEX membranes, after applying AQUAFIX PRIMER on the membrane side. Apply AQUAFIX ULTRA (A+B) with a 3 mm triangular-notched trowel over the entire area to be sealed and press with a smooth trowel so that no air bubbles remain and perfect sealing is achieved.

It is recommended to position these reinforcement/connection flanges in previously formed recesses 1-2 mm deep, in order to limit the overall thickness.

b) Waterproofing vertical walls

4. Mix AQUASAFE ULTRATECH adhesive with water. This EN 12004 C2 TE S1 certified cementitious adhesive is specifically designed for bonding G-TEX AIRFULL in continuous immersion. Follow the preparation instructions in the relevant Technical Data Sheet.

5. Cut and shape G-TEX AIRFULL to the dimensions of the walls, covering all vertical surfaces and making any required openings at penetrations (lights, skimmers, etc.). For curved surfaces, study the geometry in advance and cut suitable pieces to prevent swelling that could impair adhesion to the substrate.

6. Apply AQUASAFE ULTRATECH to the cementitious substrate with a 6-8 mm notched trowel, spreading the adhesive in one direction only, corresponding to the laying direction of G-TEX AIRFULL.

7. Bond G-TEX AIRFULL over its full surface onto the fresh adhesive, working from top to bottom and butting adjacent sheets as closely as possible without overlapping them. Press the whole membrane surface with a smooth trowel to expel any air bubbles and ensure perfect adhesion.

Depending on the geometric configuration of the pool structure, assess whether to install the membrane continuously between vertical and horizontal surfaces or to shape/cut it as required, while always ensuring perfect waterproofing continuity and avoiding folds and critical joints.

8. Near critical penetrations or built-in points, seal the G-TEX AIRFULL membrane by bonding it to the sub-flange using AQUAFIX ULTRA (A+B), after priming with AQUAFIX PRIMER.

c) Waterproofing horizontal surfaces

9. Using the same laying method described above, waterproof horizontal surfaces by bonding G-TEX AIRFULL over its full surface onto the fresh AQUASAFE ULTRATECH adhesive layer (after making suitable openings for drains, lights, etc.), butting the sheets as closely as possible without overlapping them.

10. As described above, near critical penetrations or built-in points, seal the G-TEX AIRFULL membrane by bonding it to the sub-flange with AQUAFIX ULTRA (A+B), after priming with AQUAFIX PRIMER.

d) Sealing joints and connections

11. Once all G-TEX AIRFULL has been installed, seal all butt joints between adjacent membranes, both vertically and horizontally. Make sure the membrane surfaces are free of dust, cement residues or any other material that could impair adhesion of the G-TEX STRIP H12 joint-covering tape.

12. Brush AQUAFIX PRIMER impregnating primer onto the membrane surface to be sealed with joint-covering tape or shaped corner strips.

13. When AQUAFIX PRIMER is dry to the touch, apply AQUAFIX ULTRA (A+B) two-component adhesive with a 3 mm triangular-notched trowel and bond G-TEX STRIP H12 onto the fresh adhesive. Press along the entire seal with a smooth trowel so that no air bubbles remain and perfect sealing is obtained, carefully removing excess product squeezed out of the joint.

14. Following the same procedure, seal all horizontal (wall/floor) and vertical (wall/wall) junctions using G-TEX STRIP H20 joint-covering tape.

15. Treat internal and/or external corners by positioning and bonding the waterproof shaped G-TEX STRIP CORNER 90 or G-TEX STRIP CORNER 270 tapes, again with AQUAFIX ULTRA (A+B) after applying AQUAFIX PRIMER. These are specifically designed to seal floor-to-wall connections at 90° and 270° corners respectively.

16. Any perforation required for the installation of other accessories must always be properly treated and sealed with AQUAFIX HYBRID hybrid adhesive-sealant, specifically designed for bonding and sealing G-TEX membranes on any metal, plastic, synthetic or cementitious surface, including damp surfaces.

17. A watertightness test of the waterproofing system is recommended where appropriate, to be carried out no earlier than 48/72 hours after the last membrane and accessory application.

e) Tile laying

18. Once all membranes have been installed and all critical penetrations, joints and connections have been sealed, lay the ceramic finish using the same AQUASAFE ULTRATECH adhesive, in accordance with UNI 11493 ("Ceramic floor and wall tiling - Instructions for design, installation and maintenance"). Tiles must be installed with full adhesive coverage using the double-spreading technique, with joints at least 2-3 mm wide depending on tile size (UNI 11493, section 7.10.2). On large surfaces, provide movement/control joints in the ceramic finish approximately every 9 m², following a grid from 3 x 3 m to 4 x 2.5 m (UNI 11493, section 7.11.1.2).

Grout the tiling with suitable products according to joint size. Considering the type of application and continuous water immersion, epoxy grouts are strongly recommended.

WATERPROOFING FLAT ROOFS, TERRACES, ROOFS AND SURFACES OF ANY SIZE, INCLUDING AREAS SUBJECT TO POSSIBLE VAPOUR PRESSURE (BEFORE TILING)

a) Preliminary operations

1. SLOPES: before applying G-TEX AIRFULL, check that the slopes are adequate for correct run-off and disposal of rainwater. The laying surface must have a slope of at least 1.5-2% (lower slopes are not recommended because movement or settlement of roof layers could create depressions and water ponding). On existing cementitious surfaces (concrete and screeds) or old ceramic tiling, slopes can be corrected by applying an adhesion promoter and then, wet-on-wet, a cementitious levelling compound (CE certified to EN 13813 or EN 1504-3) suitable for variable thicknesses from 1 to 30 mm.

2. DRAINS: drain sizing must comply with UNI 12056-3 ("Gravity drainage systems inside buildings - Roof drainage, layout and calculation"). As a general recommendation, provide a suitably sized drain for every 60/70 m² of surface to be waterproofed. Good practice requires drains to be positioned in a recess approximately 1-1.5 cm below the laying surface, which for floor drains must maintain a slope of at least 1.5-2%. Once formed, the recess must be regularised with cement mortar certified to EN 1504-3, suitable for 1 to 30 mm thicknesses. Use G-DRAIN outlets (HD or HR), AQUA-GO LATERAL side drains or AQUA-GO VERTICAL vertical drains, all provided with a quadrangular connection flange compatible with GEODRY waterproofing systems. Spread a uniform layer of AQUABOND EXTRAFLEX cementitious adhesive (EN 12004 C2 TE S1) inside the recess using a trowel, with dimensions suited to the flange. Insert the selected drain outlet into the prepared drain opening (inside the downpipe for floor drains), place the perimeter flange onto the fresh adhesive and press adequately to ensure perfect adhesion, expel any air bubbles and remove excess adhesive.

3. JOINTS: UNI 11493/1, section 7.11, requires perimeter, control and expansion joints to be provided in the screed.

Structural joints must be specifically checked and designed by a qualified technician. They must pass through both the ceramic finish and the full substrate thickness, without any reduction in joint width through the section. The waterproofing system, including G-TEX AIRFULL, must be interrupted at structural joints and correctly connected along the edges.

Perimeter joints must be formed by placing a 0.7-1 cm thick compressible strip alongside all vertical elements on the laying surface (parapets, walls, steps, chimneys, etc.).

Control joints in the screed must be made by a cut at least 5 mm wide and to a depth equal to 1/3 of the screed thickness, without cutting any reinforcement mesh. Generally, control joints must divide external surfaces into square or rectangular areas of 9-10 m² (from 3 x 3 m to 4 x 2.5 m), and must be carried through to the overlying tiling and sealed with suitable products. Thanks to the decoupling and anti-fracture effect of G-TEX AIRFULL, the system can compensate for stresses and movements generated by the substrate and prevent micro-cracking or cracking in the tiling layer.

In this way, the layout of the new floor can be made independent of the control-joint pattern in the substrate, without having to reproduce the exact panel layout required by the standard and avoiding tile cuts where the tile format cannot maintain joint continuity. In practice, the control joint can be shifted horizontally by a few centimetres in the tiling so that it coincides with a tile joint according to the chosen format, rather than exactly matching the joint below. G-TEX AIRFULL therefore allows tile layouts independent of substrate geometry and characteristics and improves load distribution across the surface.

Expansion joints in the new tiling must be made in accordance with the applicable standards mentioned above.

When applying G-TEX AIRFULL, membrane joints must not coincide with joints, cracks or other critical points in the substrate. Ideally the membrane should be laid as transversely as possible to these joints or cracks. Near any expansion joints in the substrate, do not apply AQUABOND EXTRAFLEX for approximately 5 cm on either side of the joint, in order to allow greater membrane movement at these critical points.

b) Waterproofing horizontal surfaces

- 4.** Mix AQUABOND EXTRAFLEX cementitious adhesive with water. It is specifically designed for bonding G-TEX membranes to cementitious substrates. Follow the preparation procedure described in the relevant adhesive Technical Data Sheet.
- 5.** Waterproof horizontal surfaces by applying AQUABOND EXTRAFLEX to the substrate with a 6-8 mm notched trowel, spreading in one direction only and in the same direction as the G-TEX AIRFULL membrane.
- 6.** Bond G-TEX AIRFULL over its full surface onto the fresh adhesive, butting adjacent sheets without overlapping them. Press the membrane with a smooth trowel in the direction of adhesive spreading to expel air bubbles and ensure perfect adhesion to the substrate.
- 7.** At drains and outlets installed previously, use AQUAFIX ULTRA (A+B) two-component adhesive to seal the shaped/cut G-TEX AIRFULL membrane to the flange of the membrane heat-welded to the drain element. Apply with a 3 mm serrated trowel and press with a smooth plastic trowel with rounded edges, removing excess product and avoiding folds or air bubbles.
- 8.** At floor-to-wall connections, turn the membrane up the walls by at least 10-15 cm and bond the upstand with AQUABOND EXTRAFLEX, leaving about 1 cm of G-TEX AIRFULL free of adhesive before and after the horizontal/vertical connection to allow possible unrestrained movement. Where possible, form a suitable recess beforehand to accommodate the vertical upstand. Where no recess can be formed, protect the upper edge of G-TEX AIRFULL with a mechanically fixed metal profile, suitably sealed at its upper edge. Where G-TEX AIRFULL cannot be turned up, use G-TEX STRIP H20 waterproof tape: bond the wall side with AQUABOND EXTRAFLEX and bond the side overlapping the floor membrane with AQUAFIX ULTRA (A+B).
- 9.** Once G-TEX AIRFULL has been installed, seal the butt joints between adjacent membranes. Make sure the joining surfaces are free of dust, cement residues or any material that could impair adhesion of the G-TEX STRIP H12 joint-covering tape. Apply AQUAFIX ULTRA (A+B) with a 3 mm triangular-notched trowel and bond G-TEX STRIP H12 onto the fresh adhesive. Press along the entire seal with a smooth trowel so no air bubbles remain and perfect sealing is achieved, carefully removing excess product.
- 10.** Treat internal (90°) and/or external (270°) corners by positioning and bonding G-TEX STRIP CORNER 90 or G-TEX STRIP CORNER 270 shaped waterproof tapes with AQUAFIX ULTRA (A+B), specifically designed to seal floor-to-wall connections at 90° and 270° respectively.
- 11.** If necessary, position ESALATORE vent elements by making an opening in the membrane surface to allow vapour below the waterproof layer to escape. Use AQUAFIX ULTRA (A+B) to seal the membrane heat-welded to the ESALATORE element to the substrate.
- 12. TREATMENT OF CONSTRUCTION OR STRUCTURAL JOINTS:** at construction or structural joints, install a suitably sized preformed waterproof joint with side flanges capable of ensuring waterproofing continuity and adhesion with GEODRY adhesives. Position the joint and bond G-TEX AIRFULL beneath the side flanges. Bond the side flanges over G-TEX AIRFULL with AQUAFIX ULTRA (A+B), pressing adequately and carefully removing excess product. Finally, seal the overlap between the side flanges and G-TEX AIRFULL with G-TEX STRIP H20 waterproof tape bonded with AQUAFIX ULTRA (A+B).

13. A watertightness test of the waterproofing system is recommended where appropriate, to be carried out no earlier than 48/72 hours after the last membrane and accessory application.

c) Tile laying

14. After waterproofing is complete and all critical points have been technically resolved, apply AQUABOND EXTRAFLEX cementitious adhesive and lay the ceramic finish in accordance with UNI 11493 ("Ceramic floor and wall tiling - Instructions for design, installation and maintenance"). Tiles must be installed with full adhesive coverage using the double-spreading technique, with joints at least 2-3 mm wide depending on tile size (UNI 11493, section 7.10.2). On large surfaces such as terraces, flat roofs and service floors, provide control joints in the ceramic finish approximately every 9 m², using a grid from 3 x 3 m to 4 x 2.5 m (UNI 11493, section 7.11.1.2). Light-coloured small or medium-format tiles, or alternatively thicker tiles, are always recommended for improved stability and to counteract possible stresses caused by thermal shock and minor structural movement.

Grout the floor using suitable cementitious products from the NEOFIL range, according to joint size.

Seal perimeter, control and expansion joints with suitable elastic sealants.

To prevent debonding close to skirting boards, provide a bead of elastic sealant at the floor contact, keeping the skirting at least 2 mm clear of the floor as required by UNI 11493-1, thereby avoiding a rigid connection with the flooring.

If G-TEX AIRFULL is to be protected with a ready-to-use liquid protective membrane instead of bonded tiling, contact the COLMEF TECHNICAL SERVICE to assess feasibility and define the correct application cycle, which will in all cases include a general cementitious skim coat over all membrane surfaces concerned.

INSPECTIONS AND MAINTENANCE

This section lists periodic inspection actions (to be carried out at least 1-2 times per year) on surfaces treated and waterproofed with the G-TEX AIRFULL system. These activities are intended to monitor the areas concerned and identify any problems and/or anomalies that could precede phenomena capable of damaging the flooring (cracks, tile detachment, etc.) and compromising watertightness.

- Check that loads acting on the flooring, whether concentrated or distributed (e.g. pots or planters, machinery or equipment), do not generate excessive stresses that could compromise the stability of the roof layers.
- Where machinery or equipment is placed on the flooring, position it on suitable spacers or decoupling layers to avoid direct contact with the tiling. Avoid mechanical fixing systems requiring holes directly through the flooring, as these could compromise the waterproofing system; ballast systems are recommended where appropriate.
- Check the integrity of the flooring to prevent possible tile detachment, cracks or fissures in grout joints and consequent water infiltration into the underlying layers.
- Where the multilayer polymer membrane is protected with a ready-to-use liquid membrane, plan application of a new coat as required according to the degree of deterioration, climatic conditions, wear, etc.; the reapplication interval must be defined according to actual conditions.
- Check the condition of seals at perimeter, control, expansion and/or structural joints, looking for deterioration or detachment of the material. If problems are found, repair and restore damaged areas, removing and replacing the sealing materials where necessary.
- Check that any metal flashings are perfectly fixed and sealed and capable of ensuring watertightness against rainwater. Repair or replace damaged elements as necessary and reseal them.
- Remove any vegetation that may develop on roof surfaces. Also remove protruding branches from plants near the roof perimeter to prevent leaves or other debris from falling and blocking drains.
- Ensure full functionality of gutters and vertical and/or wall drains by removing deposited material such as leaves, branches or other obstructions that could impair rainwater run-off. Repeat this check after every severe weather event.

- Provide and check the presence of suitable mesh guards on all vertical and/or wall drains to prevent obstructive material from entering.
- Any surface cleaning must be carried out with low-pressure washing, followed by rinsing with clean water.
- Keep a specific record of inspections and/or repairs carried out and any other work performed on the roof.

RECOMMENDATIONS

- Do not use on substrates and bases that are not fully cured and have residual moisture $\geq 5\%$ (or are subject to continuous rising damp). In such cases contact the COLMEF TECHNICAL SERVICE for correct positioning of the ESALATORE element or refer to the relevant Technical Data Sheet.
- For horizontal applications such as roofs, flat roofs and terraces, lay the membrane in the direction of the surface slope and water run-off, always starting from the lowest point near the drain and working upwards.
- When sealing butt joints or treating G-TEX accessories, avoid smearing AQUAFIX ULTRA (A+B) two-component adhesive outside the edges to be sealed and work as cleanly as possible. If smearing occurs, immediately dust quartz onto the resin surfaces before they harden.
- Bond the membrane near technical installations such as external downpipes or railings, or around steel, metal, plastic, PVC or other elements, with AQUAFIX ULTRA (A+B), finishing the edge seal with AQUAFIX HYBRID. On completion, always check carefully that all critical points have been correctly treated and sealed. Any holes or perforations must always be sealed with AQUAFIX HYBRID adhesive-sealant.
- Store in the original closed packaging at a maximum temperature of $+30\text{ }^{\circ}\text{C}$.
- Protect from direct UV exposure. In external applications, before laying any ceramic finish, avoid direct solar radiation by using appropriate site and surface protection measures such as shade cloths.
- If site operations require materials or personnel to pass over the installed membrane before tiling, use protective boards or panels to avoid contamination, damage or tearing and to allow safe movement of workers and materials.
- Although G-TEX AIRFULL constitutes a primary waterproofing layer (a true "watertight element") in accordance with UNI 8178-2, for roofs, terraces, flat roofs or surfaces above inhabited or service areas, the many possible site variables mean that an underlying primary waterproofing layer must always be present, in compliance with the current UNI 8178-2 standard and the stratigraphies shown.
- G-TEX AIRFULL must not be left exposed and must be covered with ceramic flooring (porcelain stoneware, clinker, mosaic, large slabs) or stone material. For other protective finishes, contact the COLMEF TECHNICAL SERVICE.
- Waterproof all threshold areas carefully, both near screeds and parapets. Only once this work is complete may the various thresholds be installed.
- For all matters not described in this document, refer to the applicable technical standards and good installation practice.
- G-TEX AIRFULL is intended exclusively for professional use and must be used only for the applications and in the ways specified in this Technical Data Sheet. In case of doubt or for other application types, consult the COLMEF TECHNICAL DEPARTMENT.

YIELD

1.00 m² per m² of surface to be waterproofed.

PACKAGING

G-TEX AIRFULL is supplied in rolls on a cardboard tube wrapped in heat-sealed polyethylene, 37.5 m² per roll (25 m long x 1.50 m wide).

SPECIFICATION

WATERPROOFING OF SWIMMING POOLS AND TANKS TO BE TILED

Waterproofing of swimming pools and tanks to be tiled by applying a prefabricated multilayer synthetic FPO and TNT membrane, waterproof, decoupling, with vapour diffusion control, anti-fracture, elastic, flexible, with crack-bridging ability and dimensional stability from -40 °C to +80 °C, type G-TEX AIRFULL by COLMEF.

The membrane shall meet the minimum requirements of EN 13956 for "Flexible sheets for waterproofing", comply with the chemical resistance requirements for plastic membranes against the most common chemical substances and be completely intact and free of visible defects in accordance with EN 1850-2.

Substrates shall be clean, sound, degreased and free of weak or detached parts. Where surface regularisation is required, use cementitious levelling mortars CE certified to EN 1504.

G-TEX AIRFULL shall be bonded to the substrate with a mineral adhesive classified C2 TE S1 to EN 12004, type AQUASAFE ULTRATECH by COLMEF, specifically designed for bonding G-TEX AIRFULL membrane in waterproofing structures continuously in contact with water. Butt joints between adjacent membranes shall be sealed with elastic FPO waterproof tape, type G-TEX STRIP H12 by COLMEF, bonded with AQUAFIX ULTRA (A+B) two-component adhesive by COLMEF, after applying AQUAFIX PRIMER polyurethane-resin impregnating primer in aqueous dispersion by COLMEF.

Likewise, wall/floor and wall/wall junctions shall be sealed with G-TEX STRIP H20 tape using the bonding procedure described above.

All sealing and watertight treatment of penetrations such as lights, skimmers and drains shall be included, using the specific COLMEF accessories.

After waterproofing is complete, the surface shall be adequately covered and protected with a finish bonded using a mineral adhesive classified C2 TE S1 to EN 12004, type AQUASAFE ULTRATECH by COLMEF, in accordance with UNI 11493 (supply and installation of the ceramic finish to be measured separately).

WATERPROOFING FLAT ROOFS, TERRACES, ROOFS AND SURFACES OF ANY SIZE, INCLUDING AREAS SUBJECT TO POSSIBLE VAPOUR PRESSURE (BEFORE TILING)

Waterproofing of flat roofs, terraces, roofs and horizontal surfaces in general by applying a prefabricated multilayer synthetic FPO and TNT membrane, waterproof, decoupling, with vapour diffusion control, anti-fracture, elastic, flexible, with crack-bridging ability and dimensional stability from -40 °C to +80 °C, type G-TEX AIRFULL by COLMEF.

The membrane shall meet the minimum requirements of EN 13956 for "Flexible sheets for waterproofing", comply with the chemical resistance requirements for plastic membranes against the most common chemical substances and be completely intact and free of visible defects in accordance with EN 1850-2.

Substrates shall be clean, sound, degreased and free of weak or detached parts, and shall have suitable slopes to ensure correct water run-off (measured separately).

G-TEX AIRFULL shall be bonded to the substrate using a mineral adhesive classified C2 TE S1 to EN 12004, type AQUABOND EXTRAFLEX by COLMEF. Butt joints between adjacent membranes shall be sealed with elastic FPO waterproof tape, type G-TEX STRIP H12 by COLMEF, bonded with AQUAFIX ULTRA (A+B) two-component adhesive by COLMEF. Wall/floor junctions shall be sealed with G-TEX STRIP H20 tape using the bonding procedure described above.

After waterproofing is complete, the surface shall be adequately covered and protected with a finish bonded using a mineral adhesive classified C2 TE S1 to EN 12004, type AQUABOND EXTRAFLEX by COLMEF, in accordance with UNI 11493 (supply and installation of the ceramic finish to be measured separately).

TECHNICAL DATA

	Requirements	Test method
Length (m):	25	EN 1848-2
Width (m):	1.50	EN 1848-2
Weight (g/m ²):	525	EN 1849-2
Thickness (mm):	1.25	EN 1849-2
Installation temperature:	from +5 °C to +30 °C	-
Service temperature:	from -40 °C to +80 °C	-

FINAL PERFORMANCE according to EN 13956

	Requirements	Results	Test method
Watertightness / impermeability:		PASSED	EN 1928 Meth. B
Tensile strength (N/50 mm):	MLV L $\geq$ 560 MLV T $\geq$ 400	L = 560 T = 400	EN 12311-2 Meth. A
Elongation (%):	MLV L $\geq$ 51.5 MLV T $\geq$ 76.1	L = 51.5 T = 76.1	EN 12311-2 Meth. A
Lap-joint shear resistance (N/50 mm):	MLV $\geq$ 160	160	EN 12317-2
Impact resistance (mm):	MLV $\geq$ 150	150	EN 12691 Meth. A
Static load resistance (kg):	MLV $\geq$ 20	20	EN 12730 Meth. C
Low-temperature foldability (°C):	MLV $\leq$ -35	-35	EN 495-5
Reaction to fire:	Euroclass	F	EN 13501-1
Visible defects:		NO DEFECTS	EN 1850-2
Straightness (mm):	MLV g $\leq$ 10	g = 10	EN 1848-2
Flatness (mm):	MLV p $\leq$ 10	p = 10	EN 1848-2
Dimensional stability (%):	MLV L $\leq$ -0.6 MLV T $\leq$ -0.2	L = -0.6 T = -0.2	EN 1107-02

Chemical resistance

WATER, SALT WATER (10% by weight sodium chloride NaCl),
 LIME MILK (saturated solution with calcium hydroxide Ca(OH)₂
 deposit), SULFUROUS ACID H₂SO₃, 5%-6%:

values unchanged
 after 28 days

EN 1847

System crack-resistance test - Crack Bridging Ability (mm):	High Perform. > 3.2 Stand. Perform. > 1.5	3.6 (High Performance)	ANSI A118.12
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MLV = Declared limit value

Other characteristics	Requirements	Results	Test method
Water resistance of overlaps:		Watertight	Water column
Adhesion of AQUABOND EXTRAFLEX over G-TEX AIRFULL: TENSILE (N/mm ²):		0.9	CSTB Meth.
Adhesion of AQUABOND EXTRAFLEX over G-TEX AIRFULL: SHEAR (N/mm ²):		1.28	CSTB Meth.
Ball-impact resistance on ceramic flooring (no. of impacts):		4	CSTB Meth.

STORAGE

Store G-TEX AIRFULL in its original closed packaging in a ventilated environment at a maximum temperature of 30 °C. Protect the material from direct sunlight.

ENVIRONMENT AND SAFETY (REACH)

G-TEX AIRFULL does not contain SVHC (Substances of Very High Concern) listed in the Candidate List or Annex XIV published by ECHA (European Chemicals Agency) at concentrations exceeding 0.1% by weight of the product. According to Article 3 of Regulation (EC) No. 1907/2006 - REACH, the product does not contain substances that may be released under normal or reasonably foreseeable conditions of use and does not require a Safety Data Sheet.

The technical information and instructions given above are based on our best experience, but are to be considered indicative and may require adjustments depending on actual needs and specific site conditions. Therefore, before using the product, the user must verify and establish whether it is suitable for the specific application and must in all cases carry out preliminary tests; the user assumes all responsibility arising from its use. COLMEF accepts no responsibility for incorrect use of the products. Always refer to the latest updated version of the Technical Data Sheet, available at www.colmef.com.

FOR FURTHER INFORMATION OR SPECIAL APPLICATIONS, PLEASE CONTACT THE COLMEF TECHNICAL SERVICE.

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