

Aquabond Extraflex

SPECIFIC MINERAL GEL-SOL-GEL ADHESIVE FOR BONDING G-TEX GEOMEMBRANES TO CEMENTITIOUS SUBSTRATES AND OVER EXISTING CERAMIC FLOORING IN GEODRY WATERPROOFING SYSTEMS, FOLLOWED BY THE INSTALLATION OF ALL TYPES OF CERAMIC TILES, INCLUDING LARGE FORMAT.



TECHNICAL DATA SHEET - REVISION 01/2024

DESCRIPTION

AQUABOND EXTRAFLEX is a high-performance mineral adhesive composed of specific hydraulic binders, selected mineral fillers and synthetic resins with high hydrophobic properties, zero vertical slip, extended open time and total wetting. Made with a selection of fine-grained mineral fillers, it allows under-tile waterproofing to be carried out at the minimum possible thicknesses (2.5 mm-3.5 mm).

AQUABOND EXTRAFLEX is formulated and designed in the GEODRY laboratories specifically for installing G-TEX geomembranes and ceramic coverings in GEODRY waterproofing systems. Thanks to its exclusive technology, when mixed it develops an adhesive mousse with a reversible gel-sol-gel effect, variable rheology and high workability.

Complies with European Standard EN 12004 - Class C2TE S1 - Improved (2) cementitious adhesive (C) with no vertical slip (T), extended open time (E), deformable (S1).

FIELDS OF APPLICATION

AQUABOND EXTRAFLEX, thanks to its technical characteristics, is used for installing G-TEX geomembranes both in new construction and refurbishment, on cementitious substrates or over existing ceramic flooring. The perfect combination of high adhesion and high deformability, even under particular climatic conditions, makes AQUABOND EXTRAFLEX particularly suitable for installing on G-TEX a wide range of finishing materials such as ceramic tiles, porcelain stoneware, large-format slabs, ceramic and glass mosaics, glass, natural stone and reconstituted stone.

AQUABOND EXTRAFLEX is also ideal for installing ceramic tiles of any type and size on all substrates normally used in construction, such as plaster/render, concrete, aerated concrete, self-levelling screeds, cementitious screeds including those subject to heavy traffic, rapid-drying screeds and heated screeds.

SUBSTRATE PREPARATION

The substrate to be waterproofed must comply with the requirements established by UNI 11493 regarding curing, integrity, mechanical and surface strength, dimensional regularity, moisture and absence of contaminants.

Regardless of substrate type, for proper waterproofing, due consideration must be given to all details, such as positioning drains, regularizing floor-to-wall junctions, internal and external corners, and treating any structural joints present.

Cementitious screeds

Provide appropriate slopes and any required drains to ensure correct water run-off. Cementitious screeds must have completed hygrometric shrinkage, considered to be at least 28 days, must be dry with a moisture content below 4%, flat, solid, compact, free of weak or loose parts, dust, greasy substances and any material that could compromise perfect adhesive bonding.

Level any irregularities using specific GEODRY products.

Highly porous, absorbent or surface-chalking substrates must be consolidated with an adhesion promoter.

Gypsum substrates

Gypsum substrates must not have residual moisture above 0.5%. To ensure perfect anchorage of the adhesive, it is recommended to sand the surface and treat it with a suitable primer as specified by the screed supplier. Where necessary, take suitable measures to counter possible rising damp.

Ceramic flooring

Flooring must be sound, strong, well bonded, dry, and clean of residues from previous work and anything that could impair adhesion, such as oils, grease and wax.

Remove any loose or detaching tiles and level the surface with specific COLMEF products.

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

Concrete

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

Where concrete structures are deteriorated, remove loose concrete (hydrosandblasting or high-pressure water washing is recommended) and then clean oxidation from the reinforcing bars. For their active and passive protection, treat with BETOFER 1 K one-component thixotropic mineral mortar. Restore the original concrete volumes and level the surface with fibre-reinforced mineral mortars from the BETOCEM line.

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

Plasters / renders

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

ADHESIVE PREPARATION

To obtain a fluid-consistency mix suitable for full-wetting installation of G-TEX geomembranes, pour about 7 litres of clean water into a clean container for each 25 kg bag of AQUABOND EXTRAFLEX. To obtain a thixotropic-consistency mix suitable for installing ceramic material, use about 6.5 litres of water for each 25 kg bag of AQUABOND EXTRAFLEX. Mix, taking care to remove from the sides and bottom of the container any powder that has not been perfectly dispersed, until a homogeneous, lump-free paste is obtained. Let the mix rest for a few minutes, then briefly remix before use.

APPLICATION

Installation of G-TEX geomembrane in GEODRY waterproofing systems

1. Position and seal in advance the drain outlets or channels selected from the G-DRAIN and AQUA-GO lines or the ESALATORE element, providing the correct slopes while taking into account the thickness of the planned ceramic covering.
2. Proceed with waterproofing the substrate by applying AQUABOND EXTRAFLEX to the base with a notched trowel, taking care to comb the adhesive in a single direction, corresponding to the laying direction of the G-TEX geomembrane.
3. Place the G-TEX geomembrane over the entire surface on the fresh adhesive layer and press with a smooth trowel so as not to leave air bubbles and to ensure perfect adhesion.
4. Continue bonding the G-TEX geomembrane sheets until the substrate to be waterproofed is completely covered, following, according to the type of geomembrane used, the installation and sealing methods described in the relevant Technical Data Sheets.

5. Once waterproofing is complete, make sure the waterproof layer is fully hardened and proceed, using the same AQUABOND EXTRAFLEX, with installation of the ceramic covering in accordance with UNI 11493 (Ceramic tiling on floors and walls - Instructions for design, installation and maintenance). Design the covering expansion joints in correspondence with those already present in the substrate. Where necessary, provide additional movement joints in proportion to the size of the surface to be covered and the format and type of material used (as a guideline, create movement joints every 9-15 m²). Always provide joints between tiles in accordance with UNI 11493.

COVERAGE

Coverage for G-TEX geomembrane installation: approx. 3.0 kg/m² depending on substrate type.
Coverage for ceramic material installation: approx. 5.0 kg/m² depending on tile type.

RECOMMENDATIONS

- ◆ Regardless of substrate type, for correct waterproofing, provide the necessary slopes to allow proper water run-off and avoid surface ponding.
- ◆ The joints in the ceramic covering may be sealed after the adhesive has fully hardened (at least 48 hours), as excess residual moisture between the joints can lead to possible efflorescence and consequent variation in the final colour.
- ◆ When installing large-format ceramic materials, outdoors, in very humid environments or areas subject to heavy traffic, it is essential to also spread adhesive on the back of the tiles in order to avoid voids that could cause detachment due to concentrated-load pressure or frost action.
- ◆ Direct sunlight or excessive ventilation can significantly affect working times, drastically reducing them. In such cases, dampening the cementitious substrate before applying the adhesive can help extend the open time.
- ◆ Protect the covering from rain or wash-off, frost and direct sunlight until fully hardened.
- ◆ Do not use AQUABOND EXTRAFLEX for bonding G-TEX geomembrane on non-absorbent or metal surfaces, treated wood or wood particularly sensitive to water, plastic or resilient materials.

PACKAGING

AQUABOND EXTRAFLEX is supplied in 25 kg bags on 1500 kg pallets. Store the product in dry environments and in its original tightly closed packaging. Under these conditions, its stability is at least 12 months.

SAFETY INSTRUCTIONS

The product contains cement which, on contact with body perspiration, produces an alkaline reaction that is irritating and sensitising to the skin. Wear suitable clothing, gloves and protective goggles.
For more information on safe use of the product, consult the relevant Safety Data Sheet.

SPECIFICATION

For installation of G-TEX geomembranes:

Installation of GEODRY G-TEX waterproofing geomembrane using an adhesive with gel-sol-gel effect, variable rheology, high workability, high performance, zero vertical slip, extended open time and total wetting, classified as C2TE S1 according to EN 12004, type AQUABOND EXTRAFLEX by GEODRY, specifically for bonding G-TEX geomembranes in GEODRY waterproofing systems. The adhesive must be applied at a consumption of 3 kg/m², after suitable preparation of the substrate (to be measured separately), which must comply with the requirements of UNI 11493 regarding curing, integrity, mechanical and surface strength, dimensional regularity, moisture and absence of contaminants.

For installation of ceramic material:

Installation of ceramic floors and wall coverings, porcelain stoneware, ceramic and glass mosaics, glass, natural stone and reconstituted stone using an adhesive with gel-sol-gel effect, variable rheology, high workability, high performance, zero vertical slip, extended open time and total wetting, classified as C2TE S1 according to EN 12004, type AQUABOND EXTRAFLEX by GEODRY, specifically for installing a wide range of finishing materials

on G-TEX geomembranes. The adhesive must be applied at a consumption of 5 kg/m², after adequate cleaning of the substrate, which must be free of weak parts, dust, cement residues or any other material that could compromise perfect adhesion.

TECHNICAL DATA

Complies with:	EN 12004
Classification according to EN 12004:	C2TE S1
Appearance:	powder
Colour:	grey
Apparent bulk density (kg/m ³):	1300
Mixing ratio:	6.5-7 litres of water per 25 kg of powder depending on use
Mix colour:	grey
Pot life at +23 °C:	~ 4 h
Adjustment time:	≥ 45 min.
Wall grouting:	12 h
Walkability:	48 h
Permitted application temperature:	from +5 °C to +35 °C
Service temperature:	from -30 °C to +90 °C

FINAL PERFORMANCE according to EN 12004 Class C2TE S1

Other characteristics	Requirements	Test method
Initial adhesion at 28 days (N/mm ²):	≥ 1.0	EN 1348
Adhesion after heat ageing (N/mm ²):	≥ 1.0	EN 1348
Adhesion after water immersion (N/mm ²):	≥ 1.0	EN 1348
Adhesion after freeze/thaw cycles (N/mm ²):	≥ 1.0	EN 1348
Open time (min.):	≥ 30	EN 1346
Slip (mm):	≤ 0.5	EN 1308
Deformability (mm):	≥ 2.5	EN 12002

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

The information and instructions above are based on our best experience. However, we cannot accept any responsibility for incorrect use of the products. We therefore recommend that anyone intending to use them assess whether they are suitable for the intended application and in any case carry out preliminary tests. Always refer to the latest updated version of the technical data sheet, available at www.colmef.com.

FOR FURTHER INFORMATION OR SPECIAL USES, CONTACT THE COLMEF TECHNICAL ASSISTANCE SERVICE.

COLMEF SRL | Z.I. Ponte d'Assi | 06024 - Gubbio (PG) ITALY | Tel. +39 075923561 | info@colmef.com | www.colmef.com