

AQUABOND EXTRAFLEX

MINERAL GEL-SOL-GEL ADHESIVE SPECIFIC FOR BONDING G-TEX GEOMEMBRANES ON CEMENT SUPPORTS AND FOR OVERLAYING ON EXISTING CERAMIC FLOORS IN GEODRY WATERPROOFING SYSTEMS AND SUBSEQUENT LAYING OF CERAMIC TILES OF ALL TYPES, EVEN LARGE-SIZED.



Technical Data Sheet – Rev. 09/2019

DESCRIPTION

AQUABOND EXTRAFLEX is a high performance mineral adhesive composed of specific hydraulic binders, selected mineral fillers, and synthetic resins with high hydrophobic properties, no vertical slip, extended open time and total wettability. Made from a selection of mineral fillers with fine grain size that enables waterproofing under the tile with minimum possible thicknesses (2.5 mm - 3.5 mm).

AQUABOND EXTRAFLEX is formulated and designed in GEODRY laboratories for the specific laying of G-TEX geomembranes and ceramic coatings for waterproofing systems. Thanks to its exclusive technology, it develops a gel-sol-gel reversible adhesive mousse during mixing with variable rheology and high hydrophilicity.

Classification according to European standard EN 12004 – C2TE S1 · Cement adhesive (C) improved adherence (2), no vertical slip (T), with extended open time (E), deformable (S1).

FIELDS OF APPLICATION

AQUABOND EXTRAFLEX, thanks to its technical features, is used for laying of G-TEX geomembranes in new building projects as well as restoration of cement surfaces or overlaying existing floors. The perfect combination between high adhesion and high deformability, even in particular climatic conditions, makes AQUABOND EXTRAFLEX particularly suitable for laying a wide range of finishing materials on G-TEX, such as ceramic, porcelain stoneware, large formats, ceramic and glass mosaic, glass, natural stone and reconstructed stone.

AQUABOND EXTRAFLEX is also ideal for laying of all types and size of ceramic tiles on all cementitious substrates normally used in construction, such as plaster, concrete, cellular concrete, self-levelling screed, cementitious screeds also subjected to intense traffic, on quick-drying screeds and on heating screeds.

SUBSTRATE PREPARATION

The substrate to be waterproofed must comply with the requirements set forth by Standard UNI 11493 regarding curing, integrity, mechanical and superficial strength, dimensional regularity, moisture and absence of contaminant agents.

Regardless of the type of substrate, waterproofing requires giving proper consideration to all the details such as positioning of the drains, regularisation of interconnecting points between floor and wall, of both interior and exterior corners and treatment of any structural couplings.

Cement screeds

Provide suitable slopes and set up drains for correct water outflow. The cement screeds must have already performed hydrometric shrinkage, which takes at least 28 days, they must be dry with a moisture content below 4%, flat, solid, compact, without inconsistent parts, free of dust and grease and any other material which could jeopardise perfect bonding of the adhesive.

Even off any irregularities using specific GEODRY products.

Very porous, absorbent and superficially crumbling surfaces must be reinforced with water-based adhesion promoter AQUAGRIP RECONTACT by GEODRY.

Gypsum substrates

Gypsum substrates should not feature a residual humidity of more than 0.5%. To guarantee perfect bonding of the adhesive, it is recommended to sandpaper the surface and to treat it with suitable primer as prescribed by the screed manufacturer. As far as deemed necessary, take appropriate measures to ward off the possible presence of rising damp.

Ceramic floors

The floors must be intact, resistant, well adherent, dry and clean from residues of previous processing and anything which could jeopardise bonding such as oil, grease or wax.

Remove any tiles which are detaching and even off the surface with specific GEODRY products.

For correct cleaning, wash the old floor with a water and caustic soda solution (30%) and rinse with plenty of water to eliminate any residues.

Concrete

Concrete surfaces must be compact, cured, solid, dry, clean, without inconsistent parts, free of dust and traces of release agents.

In the presence of downgraded concrete structures, remove detaching concrete (hydro-sandblasting or high pressure water wash recommended) and clean the oxidation of the iron reinforcements. For their active and passive protection, treat the reinforcements with mineral mortar single-component thixotropic GEOFER 1 K. Restore the initial concrete volumes and regularise the surface with mineral mortar, fibre-reinforced, of the line GEOGROUT by GEODRY.

In any case moisten the concrete before applying the specific adhesive to glue the geomembrane.

Plaster

The plaster must have performed hydrometric shrinkage and be sufficiently flat, cured, dried, solid, consistent and superficially mechanically resistant. Any finish levelling or old painting must be removed to avoid jeopardising bonding of the system. Excessively porous and crumbly surfaces must be appropriately treated and reinforced with specific GEODRY products.

MIXTURE PREPARATION

To obtain a mixture with a fluid consistency suitable for the laying with total wettability of G-TEX geomembranes, pour about 7 litres of clean water into a clean container for every 25 kg bag of AQUABOND EXTRAFLEX. To instead obtain a mixture with a thixotropic consistency suitable for laying ceramic material, use a quantity of water of about 6.5 litres per each bag of 25 kg AQUABOND EXTRAFLEX. Mix taking care to remove the part of powder that is not perfectly dispersed from the walls and bottom of the container until a homogeneous and lump-free mixture is obtained. Let the mixture rest for a few minutes, remixing briefly before use.

APPLICATION**G-TEX geomembranes laying in GEODRY waterproofing systems**

1. Beforehand, position and seal the G-DRAIN, AQUA-GO or ESALATORE drains, ducts or breather vents selected, setting up the right slopes according to the thickness of the ceramic covering.
2. Apply AQUABOND EXTRAFLEX on the sub-base with square notch trowel, making sure to spread the adhesive in one direction, coinciding with the direction G-TEX geomembrane was spread.
3. Position G-TEX geomembrane on the entire surface on the fresh layer of adhesive, press the surface with a smooth trowel so there are no air bubbles and to guarantee perfect bonding.
4. Keep gluing the G-TEX geomembrane sheets until you have fully covered the sub-base to be waterproofed, complying with the laying and sealing methods described in the relative *Technical Sheet* and according to the type of geomembrane used.
5. When you have finished waterproofing, make sure that the water-impermeable layer is fully hardened and then use the same AQUABOND EXTRAFLEX adhesive to lay the ceramic covering, complying with that set forth by standard UNI 11493 (Ceramic covering a floors and walls - Instructions for the planning, for the installation and for the maintenance). Design the expansion joints of the covering on those existing in the substrate. If needed, provide additional expansion joints in proportion to the size of the surface to be covered, to the format and the type of material used (as an indication, make expansion joints each 9-15 m²). Always envisage joints between tiles as per standard UNI 11493.

YIELD

Yield G-TEX geomembrane laying: approx 3.0 kg/m² depending on the type of substrate.

Yield tile laying: approx 5.0 kg/m² depending on the type of tile.

RECOMMENDATIONS

- Regardless of the type of substrate, for the execution of a correct waterproofing provide suitable slopes for correct water outflow and avoid stagnant water on the up surface.
- The grouting of the ceramic coating can be done after fully hardened of the adhesive (at least 48 hours), because an excess residual moisture between the joints can involve the possible formation of efflorescence and a consequent variation in the final colour.
- For laying large size ceramic materials, for laying outdoors, for laying in damp environments or subject to intense traffic, it is important to also spread the adhesive on the back side of the tiles. This will prevent any gaps from forming, which would cause breaks or detachment due to concentrated load pressure or frost reaction.
- Strong sun or excessive ventilation can greatly affect the processing time, lowering them significantly. In this case, dampen the cement substrate before applying the adhesive; this may be useful to extend the open time.
- Protect the covering from rain or wash-out, from frost or direct sunlight, until complete hardening.
- Do not use AQUABOND EXTRAFLEX for bonding G-TEX geomembrane on non-absorbent or metal surfaces, on treated wood or surfaces particularly sensitive to water, or on plastic or resilient materials.

PACKAGING

AQUABOND EXTRAFLEX is available in bags of 25 kg on a 1500 kg pallet. Keep the product in a dry place, in its original, properly closed packaging. In these conditions, its stability is of at least 12 months.

TECHNICAL DATA

Compliance with:	EN 12004
Class:	C2TE S1
Appearance:	powder
Colour:	grey
Apparent volume mass (kg/m ³):	1300
Mixing ratio:	6.5-7 liters of water per 25 kg of powder, depending on use
Pot life a +23 °C:	approx. 4 h
Adjustment time:	≥ 45 min.
Wall grouting:	12 h
Walkability:	48 h
Allowed application temperature:	from +5 °C to +35 °C
Operating temperature:	from -30 °C to +90 °C

FINAL PERFORMANCE EN 12004 Class C2TE S1

	Requirements	Rule
Initial adhesion after 28 days (N/mm ²):	≥ 1.0	EN 1348
Adhesion after heat action (N/mm ²):	≥ 1.0	EN 1348
Adhesion after immersion in water (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

| Data collection at +23 °C - RH 50% and no ventilation |

SAFETY INSTRUCTIONS

The product contains cement that on contact with skin produces an irritant alkaline reaction. Use protective gloves, clothing and glasses. Consult the Safety Data Sheet in order to use the product safely.

SPECIFICATIONS

For G-TEX geomembrane laying:

laying of waterproofing G-TEX geomembrane by GEODRY with a variable rheological gel-sol-gel effect adhesive with high hydrophilicity, high performance, no vertical slip, extended open time and total wettability, classified as C2TE S1 in accordance with Standard EN 12004, such as **AQUABOND EXTRAFLEX** by GEODRY (*features and performance according to the attached Technical Data Sheet*), specific for G-TEX geomembrane bonding in GEODRY waterproofing systems. Adhesive application must be performed in accordance with a consumption of 3 kg/m², after suitable preparation of the substrate (to be calculated separately) which must comply with the requirements set forth by Standard UNI 11493 regarding curing, integrity, mechanical and superficial strength, dimensional regularity, moisture and absence of contaminant agents.

For ceramic material laying:

laying of ceramic, porcelain stoneware, ceramic and glass mosaic, glass, natural stone and reconstructed stone flooring and coverings with a variable rheological gel-sol-gel effect adhesive with high hydrophilicity, high performance, no vertical slip, extended open time and total wettability, classified as C2TE S1 in accordance with Standard EN 12004, such as **AQUABOND EXTRAFLEX** by GEODRY (*features and performance according to the attached Technical Data Sheet*), specific for the laying of a wide range of finishing materials on GEODRY geomembranes. Adhesive application must be performed in accordance with a consumption of 5 kg/m², after suitable cleaning of the substrate which must be without inconsistent parts, free from dust, cement residues or any other material that can jeopardise perfect bonding.

FOR FURTHER DETAILS OR SPECIAL USES CONTACT THE **GEODRY TECHNICAL DEPARTMENT**.

Tel. +39 075 7825557

support@geodry.com

The information in this technical data sheet is based on our best experience. We cannot be held liable for any product misuse. We therefore recommend anyone who intends to use this product to assess whether it is suitable for the intended application and to perform preliminary tests.