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Authorised and notified according
to Article 29 of the Regulation (EU)
No 305/2011 of the European
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MEMBER OF EOTA



European Technical Assessment ETA-09/0048 of 2023/12/20

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:

Alfix 1K Watertight covering kit

Product family to which the above construction product belongs:

Liquid applied watertight covering kit for wet room floors and walls

Manufacturer:

Alfix A/S
H. C. Ørstedsvvej 11-13
DK-6000 Kolding
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Internet www.alfix.dk

Manufacturing plant:

Alfix A/S
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This European Technical Assessment contains:

9 pages including 1 annex which form an integral part of the document

This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:

EAD 030352-00-0503 for Liquid applied watertight covering kits for wet room floors and/or walls

This version replaces:

The ETA with the same number issued on 2021/11/18

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product

Alfix 1K is a liquid applied one component membrane kit which serves as a watertight covering for wet room floors and walls beneath a wearing surface.

The kit consists of the following components:

Primer

Alfix VådrumsPrimer, which is a polymer dispersion primer with a “tell-tale” colour additive for use on moisture sensitive substrates. The primer is intended to have a significant additional function in limiting the water vapour permeability of the kit. If there is no need for water vapour resistance PlaneMixPrimer can be used alternatively.

Membrane

The membrane is a one component system consisting of Alfix 1K liquid membrane on polymer dispersion base.

Reinforcement

The reinforcement is Alfix Reinforced Strip (Armeringsvæv), which is an elastic jointing tape used to bridge cracks and joints, and, Alfix Seal Strip, which is a self-adhesive synthetic rubber tape used in connection between the floor and the wall, in corners and around penetrations. Alternatively, Alfix VT PipeMat (Rørmantel) can be used around penetrations. For gullies the Alfix Drain Mat (afløbsmantel) or Alfix Seal-Mat, which are self-adhesive collars, are used. Alfix Reinforced Strip (armeringsvæv) can be used on gullies with a steel flange. The reinforcement is not intended to cover the entire floor and wall covering but is used over joints and in corners and around pipe penetrations and floor gullies.

Adhesives

Adhesives covered by this ETA is: Alfix LetFix Universal, Alfix LetFix, Alfix Letfix Less dust, Alfix CombiFix, Alfix ProFix, Alfix CombiQuickFix, Alfix QuickFix Premium Alfix FlexFix, Alfix ProFix Plus, and Alfix LetFix Plus.

Kit build-up

The kit is constructed as follows:

- a layer of minimum 0.10 liters/m² (120 g/m²) Alfix VådrumsPrimer (depending on substrate)

- reinforcement of in- and outgoing corners in walls, over joints or cracks in the substrate, around pipe penetrations and along the connection between floor and wall with Alfix Reinforced Strip, which is embedded in a layer of Alfix 1K membrane with the self-adhesive synthetic rubber reinforcement Alfix Seal Strip. Reinforcement around the floor gully can be established with the Alfix Drain Mat, Seal-Mat or Alfix Seal Strip. Alternatively Alfix Reinforced Strip (Armeringsvæv) can be used on gullies with a steel flange.
- At least 1500 g/m² on floors and at least 1000 g/m² on walls. The above mentioned amount of Alfix 1K corresponds to a dry film of 0.8 mm (floors) respectively 0.5 mm (walls).
- a layer of ceramic tiles adhered to the kit with cement-based tile adhesive (Alfix LetFix Universal, Alfix LetFix, Alfix CombiFix, Alfix ProFix, Alfix Letfix less dust, Alfix CombiQuickFix, Alfix QuickFix Premium, Alfix FlexFix, Alfix ProFix Plus and Alfix LetFix Plus).

Note that the above-mentioned amount of Alfix 1K corresponds to a dry film thickness of 0.8 mm (floors) respectively 0.5 mm (walls) (see section 3.4).

2 Specification of the intended use in accordance with the applicable European Assessment Document (hereinafter EAD)

1. Watertight covering for use beneath a wearing surface, normally in the form of tiles, on substrates of wood based panels, gypsum boards, fibre cement boards, cement bonded boards, watertight boards made from a polystyrene core with a cement based glass fibre reinforced covering and concrete, i.e., moisture sensitive substrates, which are flexible and with jointing and susceptible to cracking.

The kit can be used with the following types of floor gullies:

Circular and rectangular gullies made from stainless steel or plastic type PE, with flange for adhesion of the membrane or with clamping ring or with collar.

2. Indoor applications, where the liquid applied, kit is not exposed to temperatures (i.e., temperature of structure) below 5 °C and above 40 °C, in the following uses:

- Floor and wall surfaces with only occasional direct exposure to water, e.g., at a good distance from shower or bathtub.
- Floors and walls in shower areas or around bathtubs used for a few showers daily, e.g., in ordinary dwellings, multi-family houses and hotels
- Floor and wall surfaces with exposure to water more frequent or of longer duration than normally anticipated in dwellings, e.g., public wet rooms, schools and sport facilities.

The provisions made in this European Technical Assessment are based on an assumed intended working life of the 25 years, provided that they are subject to appropriate installation, use and maintenance.

The indications given on the working life cannot be interpreted as a guarantee given by the producer or Assessment Body but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

Characteristic

Assessment of characteristic

3.2 Safety in case of fire (BWR 2)

Reaction to fire

Euroclass F and Euroclass Ffl according to EN 13501-1 and Delegated Regulation (EU) 2016/364

3.3 Hygiene, health and the environment (BWR 3)

Content, emission and/or release of dangerous substances^{*)}

	After 3 days [µg/m ³]	After 28 days [µg/m ³]
TVOC	≤ 750	≤ 60
TSVOC		≤ 40

Vapour permeability

Intended use : IA2, product with indirect contact to indoor air (e.g. covered products) but possible impact on indoor air.

The vapour permeability of the 1K membrane with VådrumsPrimer when tested at 23°C and RH 93 → 50 %. The test has been performed with the membrane facing a climate of 93 % RH:

$Z_v > 1.000.000$ s/m equal to $s_d = 27$ m for kits with at least 120 g/m² Alfix VådrumsPrimer in two applications and at least 1000 g/m² Alfix 1K in two applications

The vapour permeability of the 1K membrane with VådrumsPrimer when tested at 23°C and RH 100 → 75 %. The test has been performed with the membrane facing a climate of 100 % RH:

$Z_v = 2.006.000$ s/m equal to $s_d = 53,3$ m for kits with 242 g/m² Alfix VådrumsPrimer in two applications and 1517 g/m² Alfix 1K in two applications.

Water tightness

Watertight

Crack bridging ability

Assessment category 2:

Crack width 0,75 mm with 0,8 mm thick membrane (floors)

Assessment category 1:

Crack width 0,4 mm with 0,5 mm thick membrane (walls)

Bond strength

Alfix 1K with Alfix VådrumsPrimer and the following tile adhesives; Alfix LetFix Universal, Alfix LetFix, Alfix CombiFix, Alfix ProFix, Alfix Letfix less dust, Alfix CombiQuickFix, Alfix QuickFix Premium Alfix FlexFix, Alfix ProFix Plus and Alfix LetFix Plus on a concrete substrate all comply with

Assessment category 2: Bond strength $\geq 0,5$ MPa

Characteristic	Assessment of characteristic
Bond strength	<p>Alfix 1K with Alfix VådrumsPrimer and the following tile adhesives; Alfix LetFix Universal, Alfix LetFix, Alfix Letfix less dust, Alfix CombiFix, Alfix ProFix, Alfix CombiQuickFix. Alfix QuickFix Premium, Alfix FlexFix, Alfix ProFix Plus and Alfix LetFix Plus on substrates^{**}) of calcium silicate boards, gypsum boards, fibre cement boards, cement-based boards and watertight boards made from a polystyrene core with a cement-based glass fibre reinforced covering comply with</p> <p>Assessment category 1: Bond strength $\geq 0,3$ MPa</p>
Scratching resistance	No performance assessed
Joint bridging ability	The kit can bridge joints
Water tightness around penetrations	Watertight
Resistance to temperature	Assessment category 2: Bond strength $\geq 0,5$ MPa
Resistance to water	Assessment category 2: Bond strength $\geq 0,5$ MPa
Resistance to alkalinity	Assessment category 2: Bond strength $\geq 0,5$ MPa
Resistance to mechanical wear	Not relevant
3.4 Safety in use (BWR 4)	
Slipperiness	Not relevant
Reparability	Reparable
Thickness	<p>The required weight (wet) of the Alfix 1K membrane is 1,84 kg/m² pr. mm dry thickness of the layer</p> <p>The minimum thickness of the membrane shall be 0.5 mm on walls and 0.8 mm on floors.</p>
Durability of paint kits	Not relevant

*) In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g., transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

3.5 Methods of verification

The characteristic values of the watertight covering kit are based on the EAD 030352-00-0503.

The European Technical Assessment is issued for the product based on agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide if such changes affect the ETA and consequently the validity of the CE marking based on the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

Alfix 1K watertight covering kit are manufactured in accordance with the provisions of this European Technical Assessment using the manufacturing processes as identified in the inspection of the plant by the notified inspection body and laid down in the technical documentation.

The performance of the watertight membrane can be assumed only if the following aspects are considered:

- only those components which are specified components of the kit can be used,
- the appropriate tools shall be used and adjuvant, precautions shall be taken,
- inspecting the substrate surface for cleanliness and correct treatment,
- inspection in the process of establishing the kit and of the finished watertight membrane and documentation of the results.

The information as to the handling of waste products shall be observed.

4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base

4.1 AVCP system

According to the decision 2003/655/EC of the European Commission, as amended, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 2+.

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

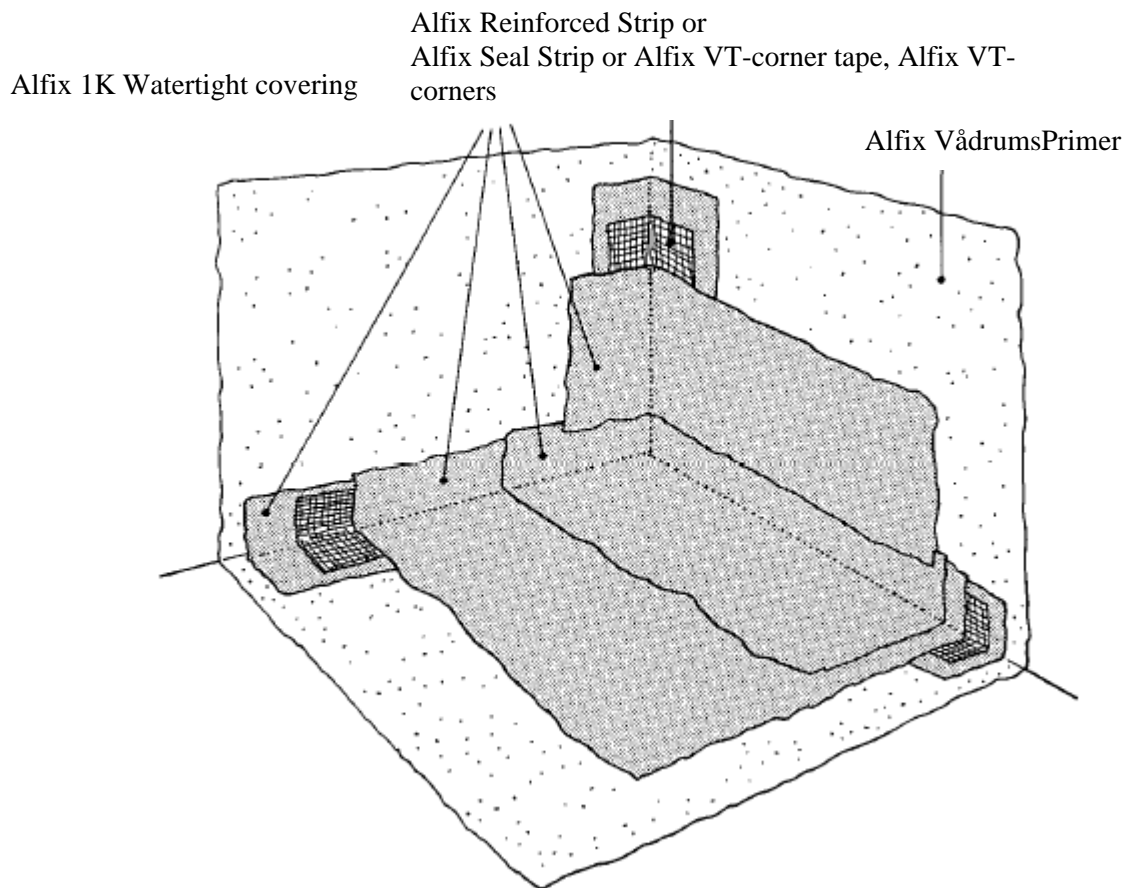
Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking.

Issued in Copenhagen on 2023-12-20 by



Thomas Bruun
Managing Director, ETA-Danmark

Annex A Typical installation



Alfex 1K watertight covering kit

Principle build-up of the kit

Annex 1