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Authorised and notified according to Article 29 of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

MEMBER OF EOTA

# European Technical Assessment ETA-24/1129 of 2024/12/20

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:** | BAL WATERPROOF 1C |
| **Product family to which the above construction product belongs:** | Liquid applied watertight covering kit for wet room floors and walls |
| **Manufacturer:** | Building Adhesives Ltd<br>Longton Road, Stoke-on-Trent, Staffordshire,<br>GB-ST4 8JB<br>T: +44(0)1782 591100<br>www.building-adhesives.com |
| **Manufacturing plant:** | ARDEX UK Ltd<br>Homefield Road<br>Haverhill, Suffolk<br>GB-CB9 8QP |
| **This European Technical Assessment contains:** | 8 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: Liquid applied watertight covering kit for wet room floors and/or walls |
| **This version replaces:** | |

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

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# II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

## 1 Technical description of product

**Technical description of the product**

**General**
BAL WATERPROOF 1C watertight covering kit for wet rooms is a one component system consisting of a liquid membrane for walls and floors. The membrane is associated with components, such as primer, reinforcements and adhesives and serves as watertight covering for wet room walls and floors beneath a wearing surface.

The kit consists of the following components:
**Primer**
BAL Primer 1C is a modified SBR dispersion primer.
The primer is not designed to limit the water vapour permeability of the kit. The main functions of the primer are to improve adhesion and eliminate pinholes.
**Membrane**
BAL Waterproof 1C is a 1-component, solvent-free liquid membrane based on a water-based polymer dispersion.
**Reinforcement**
BAL Waterproof 1C Mat is used as reinforcement on floors. BAL Waterproof 1C Tape which is used in connection between walls and in corners, and BAL Waterproof 1C Mat around penetrations.
**Accessories**
BAL Universal Sealant and Adhesive may be used to fix drains and gullies to recommended substrates used with BAL Waterproof 1C.
**Adhesives**
Adhesives covered by this ETA is BAL SPF S1, BAL Rapid Flex One, BAL Flex One, BAL Rapid XP Plus, BAL Rapid Flex Fibre Plus, BAL Flex Fibre Plus

**Kit**
The kit is constructed as follows:

- a layer of BAL PRIMER 1C, typical coverage undiluted 6m$^2$/litre.

- Reinforcement of in- and outgoing corners in walls, over joints or cracks in the substrate along the connection between floor and wall with the BAL Waterproof 1C Tape.

- Reinforcement around pipe penetrations in floors and walls is established with BAL Waterproof 1C Mat.

- Drains and gullies are fixed to substrates with BAL Universal Sealant and Adhesive.

- BAL Waterproof 1C in 1 or 2 layers of at least 0.8 mm total thickness on walls.

- BAL Waterproof 1C in 2 layers of at least 0.8 mm total thickness, with a reinforcement layer of BAL Waterproof 1C Mat between the 2 layers, on floors.

- a layer of ceramic tiles adhered to the kit with tile adhesive covered by this ETA.

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

The intended use of the covering kit is:

1. watertight covering for use beneath a wearing surface, normally in the form of tiles, on substrates of Plywood, gypsum board or concrete, i.e. moisture sensitive substrates, which are flexible and with jointing and susceptible to cracking

The kit can be used with gullies of stainless steel with flange for attaching of collar/membrane, of plastics type PE or PP for attaching of collar/membrane with clamping ring (and collar).

2. Indoor applications, where the liquid applied kit is not exposed to temperatures (i.e. temperature of structure) below 5 ºC and above 40 ºC, 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 kit of 25 years.

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/Data submitted | Assessment of characteristic |
|---|---|
| **3.2 Safety in case of fire (BWR 2)** | |
| Reaction to fire | No performance assessed |
| **3.3 Hygiene, health and the environment (BWR 3)** | |
| Content, emission and/or release of dangerous substances | <table><tr><th></th><th>After 3 days [µg/m³]</th><th>After 28 days [µg/m³]</th></tr><tr><td>**TVOC**</td><td>**≤ 750**</td><td>**≤ 60**</td></tr><tr><td>**TSVOC**</td><td></td><td>**≤ 40**</td></tr></table><br>Intended use : IA2, product with indirect contact to indoor air (e.g. covered products) but possible impact on indoor air. |
| Vapour permeability | The vapour permeability of the BAL Waterproof 1C membrane with BAL Primer 1C Primer when tested at 23ºC and RH 93 → 50 % is:<br><br>BAL Primer 1 C, 170 g/m² + Bal Waterproof 1C, 1090 g/m² applied in two applications: **$s_d$ value = 6,43 m** |
| Water tightness | **Watertight** |
| Crack bridging ability | **Assessment category 3**: Crack width: 1,5 mm |
| Bond strength | BAL Waterproof 1C membrane with BAL Primer 1C Primer and tile adhesives stated in the ETA, on substrates made from concrete all comply with<br>**Assessment category 2**: Bond strength ≥ 0,5 MPa<br><br>BAL Waterproof 1C membrane with BAL Primer 1C Primer and tile adhesives BAL Rapid Flex One, BAL Rapid XP Plus, BAL Rapid Flex Fibre Plus, BAL Flex Fibre Plus, on substrates made from Plywood comply with<br>**Assessment category 2**: Bond strength ≥ 0,5 MPa<br><br>BAL Waterproof 1C membrane with BAL Primer 1C Primer and tile adhesives, BAL SPF S1 and BAL Flex One, on substrates made from Plywood comply with<br>**Assessment category 1**: Bond strength ≥ 0,3 MPa < 0,5 MPa |
| Scratching resistance | Not relevant. |
| Joint bridging ability | **The kit can bridge joints** |
| Water tightness around penetrations | **Watertight** |

| Characteristic/Data submitted | Assessment of characteristic |
|---|---|
| Resistance to temperature | BAL Waterproof 1C membrane with BAL Primer 1C Primer and tile adhesives stated in the draft ETA and tile adhesives stated in the draft ETA, on substrates made from concrete comply with **Assessment category 2**: Bond strength ≥ 0,5 MPa<br><br>Crack bridging ability<br>**Assessment category 2**: Crack width: 0,75 mm |
| Resistance to water | BAL Waterproof 1C membrane with BAL Primer 1C Primer and tile adhesives stated in the draft ETA and tile adhesives stated in the draft ETA, on substrates made from concrete comply with **Assessment category 2**: Bond strength ≥ 0,5 MPa |
| Resistance to alkalinity | BAL Waterproof 1C membrane with BAL Primer 1C Primer and tile adhesives stated in the draft ETA and tile adhesives stated in the draft ETA, on substrates made from concrete comply with **Assessment category 2**: Bond strength ≥ 0,5 MPa |
| Resistance to mechanical wear | Not relevant |
| **3.4 Safety in use (BWR 4)** | |
| Slipperiness | Not relevant |
| Repairability | No performance assessed |
| Thickness | The required weight (wet) of the BAL Waterproof 1C membrane is 1.36kg/m2 per mm of dry thickness of the layer.<br><br>At the minimum dry thickness for walls and floors of 0.8mm, the required weight (wet) of BAL Waterproof 1C is 1.09kg/m2 |
| Durability of paint kits | Not relevant |

*) In accordance with http://europa.eu.int-/comm/enterprise/construction/internal/dangsub/dangmain.htm 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 EU Construction Products Directive, these requirements need also to be complied with, when and where they apply.

### 3.9 Aspects related to the performance of the product

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 whether 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.

The performance of the watertight membrane kit results from the characteristic values and categories.

The supplementing statements of the manufacturer stated in the MTD for design and application of the watertight system for creating a watertight covering under wearing surface for floors and walls in indoor wet areas shall be considered

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.

It is the manufacturer's responsibility to make sure that all those who utilize the kit will be appropriately informed about the specific conditions according to this ETA and the not confidential parts of the MTD deposited to this ETA

# 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

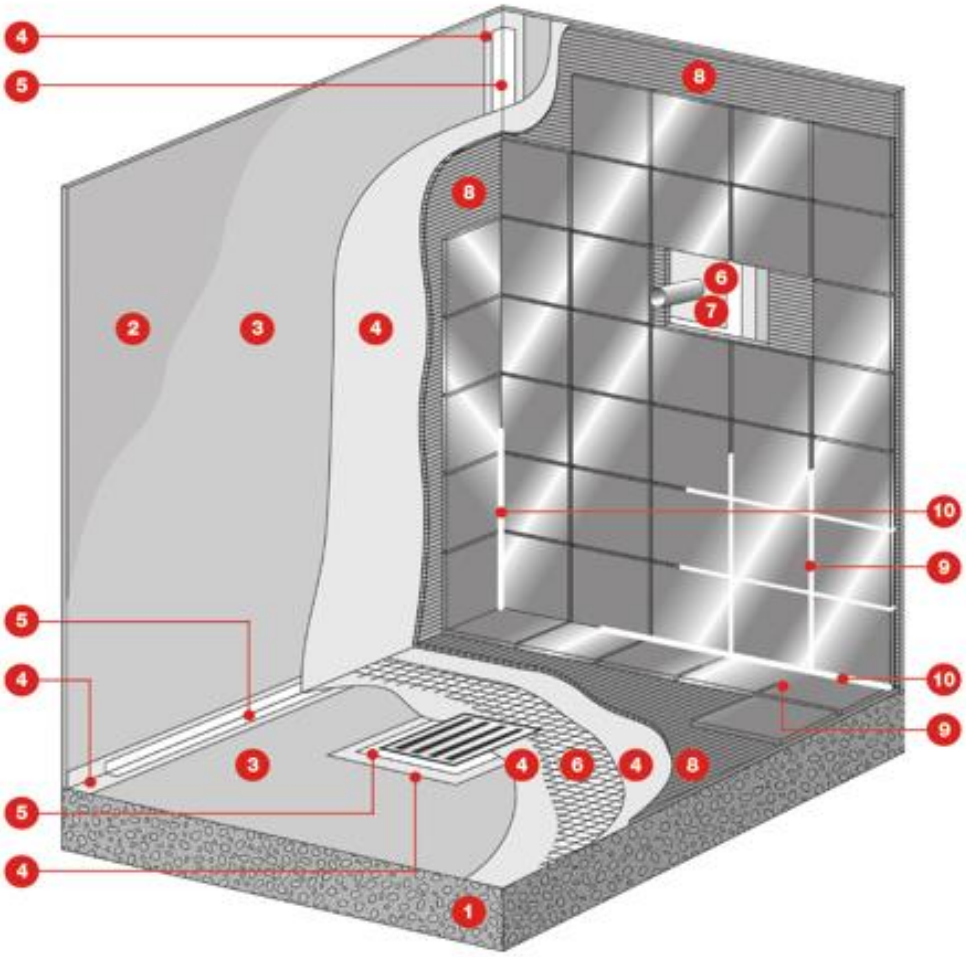
Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking.

Issued in Copenhagen on 2024-12-20 by

Thomas Bruun
Managing Director, ETA-Danmark

# Annex A

**Principal build-up of the BAL WATERPROOF 1C watertight covering kit.**




key

1 Recommended substrate
2 Plasterboard

*BAL WATERPROOF 1C watertight covering kit:*

3 BAL PRIMER 1C
4 BAL WATERPROOF 1C
5 BAL WATERPROOF 1C TAPE
6 BAL WATERPROOF 1C MATTING
7 BAL UNIVERSAL ADHESIVE & SEALANT

*Suggested products for subsequent tiling:*

8 Approved BAL Adhesive
9 Suitable BAL Grout
10 Suitable BAL Sealant