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MEMBER OF EOTA



European Technical Assessment ETA-14/0003 of 2023/09/11

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:

LIP 2K Vådtrumssystem Watertight covering kit

Product family to which the above construction product belongs:

Liquid applied watertight covering kit for wet room floors and walls

Manufacturer:

LIP Bygningsartikler A/S
Industrivej 16
5580 Nørre Aaby
Telephone +45 64 42 13 30
Internet www.lip.dk

Manufacturing plant:

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This European Technical Assessment contains:

9 pages including 2 annexes 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 kits for wet room floors and/or Walls

This version replaces:

The ETA with the same number issued on 2019-04-10

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

General

LIP “2K Vådtrumssystem” is a liquid applied two 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

LIP “Primer VS 20” 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

LIP “Primer 54”, which is a single component water-based primer for various substrates. This primer is not intended to have a significant additional function in limiting the water vapour permeability of the kit.

Membrane

The LIP “2K Membrane” is a two-component membrane system consisting of LIP “Cement” and LIP “Vandtætningsbinder” liquid membrane on mineral dispersion base.

Reinforcement

The reinforcement is either LIP “Armeringsvæv” or LIP “Foliebånd/Åt-Remsa” which is used to bridge cracks and joints, in connection between the floor and the wall, in corners and around penetrations and floor gullies. LIP “Armeringsvæv” or LIP “Foliebånd/Åt-Remsa” is glued to the substrate with a mix of LIP “Cement” and LIP “Vandtætningsbinder” (1:1).

Alternative reinforcement is LIP “Selvklæbende Tætningsbånd”, which is a butyl based self-adhering tape and is used in connection between the floor and the wall and in corners. Sealing around pipe penetrations is made with LIP “Rørmanchet”, which is a prefabricated collar made of thermoplastic elastomers. Sealing of floor gullies is made with LIP “Selvklæbende Tætark”, which is a butyl based self-adhering collar.

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: LIP “Flydeklæb let”, LIP “Naturstensklæb”, LIP “Multi Fliseklæb”, LIP “Multi Fliseklæb Let”, LIP “Super Trope Fliseklæb”, LIP “Hurtighærdende Fliseklæb”, LIP “XXL Storformat”, LIP “Multi Let 544” or LIP “527 Fliseklæb”.

Kit

The kit is constructed as follows:

- where relevant a layer of approx. 0,15 l/m² kg/m² LIP “Primer 54” (depending on substrate) or a layer of minimum 160 g/m² LIP “Primer VS 20” (depending on substrate)
- reinforcement with LIP “Armeringsvæv” or LIP “Foliebånd/Åt-Remsa” which is used to bridge cracks and joints, in connection between the floor and the wall, in corners and around penetrations and floor gullies. LIP “Armeringsvæv” or LIP “Foliebånd/Åt-Remsa” is glued to the substrate with a mix of LIP “Cement” and LIP “Vandtætningsbinder” (1:1). Alternative reinforcement is LIP “Selvklæbende Tætningsbånd”, which is a butyl based self-adhering tape and is used in connection between the floor and the wall and in corners. Sealing around pipe penetrations is made with LIP “Rørmanchet”, which is a prefabricated collar made of thermoplastic elastomers. Sealing of floor gullies is made with LIP “Selvklæbende Tætark”, which is a butyl based self-adhering collar.
- at least the amount of LIP “2K Membrane” which is a thickness of approx. 0.50 mm two component LIP “2K Membrane” distributed evenly over the surface in one application.
- a layer of ceramic tiles adhered to the kit with cement-based tile adhesive: LIP “Flydeklæb let”, LIP “Naturstensklæb”, LIP “Multi Fliseklæb”, LIP “Multi Fliseklæb Let”, LIP “Super Trope Fliseklæb”, LIP “Hurtighærdende Fliseklæb” LIP “XXL Storformat”, LIP “Multi Let 544” or LIP “527 Fliseklæb”.

Note that the above-mentioned amount of LIP “2K Membrane” corresponds to a dry film thickness of approx. 0,50 mm.

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 wood based panels, gypsum boards, fiber cement boards, cement bonded boards, watertight boards made from a polystyrene core with a cement based fiberglass 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:

a) floor drain, stainless steel, **b)** Floor drain, PP with clamping ring as screwed connection, **c)** PP floor drain with clamping ring as screwed connection, **d)** plastic floor drain with clamping ring as screwed connection and **e)** plastic floor drain with spring clamping ring.

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 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	Assessment of characteristic
2.2 Safety in case of fire (BWR2)	
Reaction to fire	No performance assessed
2.3 Hygiene, health and the environment (BWR3)	
Content, emission and/or release of dangerous substances*	No performance assessed
Vapour permeability	See annex 1
Water tightness	Watertight
Crack bridging ability	Assessment category 1: Crack width 0,4 mm
Bond strength	LIP “2K Membrane” with LIP “Primer 54” and the following tile adhesives; LIP “Flydeklæb let”, LIP “Naturstensklæb”, LIP “Multi Fliseklæb”, LIP “Multi Fliseklæb Let”, LIP “Super Trope Fliseklæb”, LIP “Hurtighærdende Fliseklæb”, LIP “XXL Storformat”, LIP “Multi Let 544” or LIP “527 Fliseklæb”, on a concrete substrate all comply with Assessment category 2: Bond strength > 0,5 MPa
Scratching resistance	Not relevant
Joint bridging ability	The membrane can join bridges
Water tightness around penetrations	Watertight
Resistance to temperature	Assessment category 2: Bond strength > 0,5 MPa
Resistance to water	Assessment category 2: Bond strength > 0,5 MPa
Resistance to alkalinity	Assessment category 2: Bond strength > 0,5 MPa
Resistance to mechanical wear	Not relevant
2.4 Safety in use (BWR4)	
Slipperiness	Not relevant
Repairability	Repairable
Thickness	The overall thickness of the system is 0,62 mm and the overall weight per volume is 1,77 kg/mm / m ² .
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 EU Construction Products Directive, these requirements need also to be complied with, when and where they apply.

See additional information in section 3.9.

3.9 Aspects related to the performance of the product

The European Technical Assessment is issued for the product on the basis of 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 or not such changes affect the ETA and consequently the validity of the CE marking on the basis of 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 Attestation and verification of constancy of performance (AVCP)

4.1 AVCP system

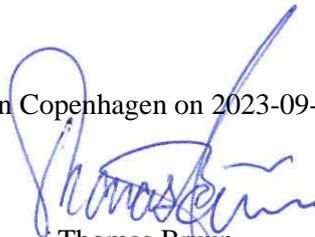
According to the decision 2003/655/EC of the European Commission as amended, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 2+.

There is no declared fire performance, and hence the Decision 2003/655/EC of the European Commission with regard to reaction to fire is not relevant.

5 Technical details necessary for the implementation of the AVCP system, as foreseen 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 2023-09-11 by



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Managing Director, ETA-Danmark

Vapour permeability

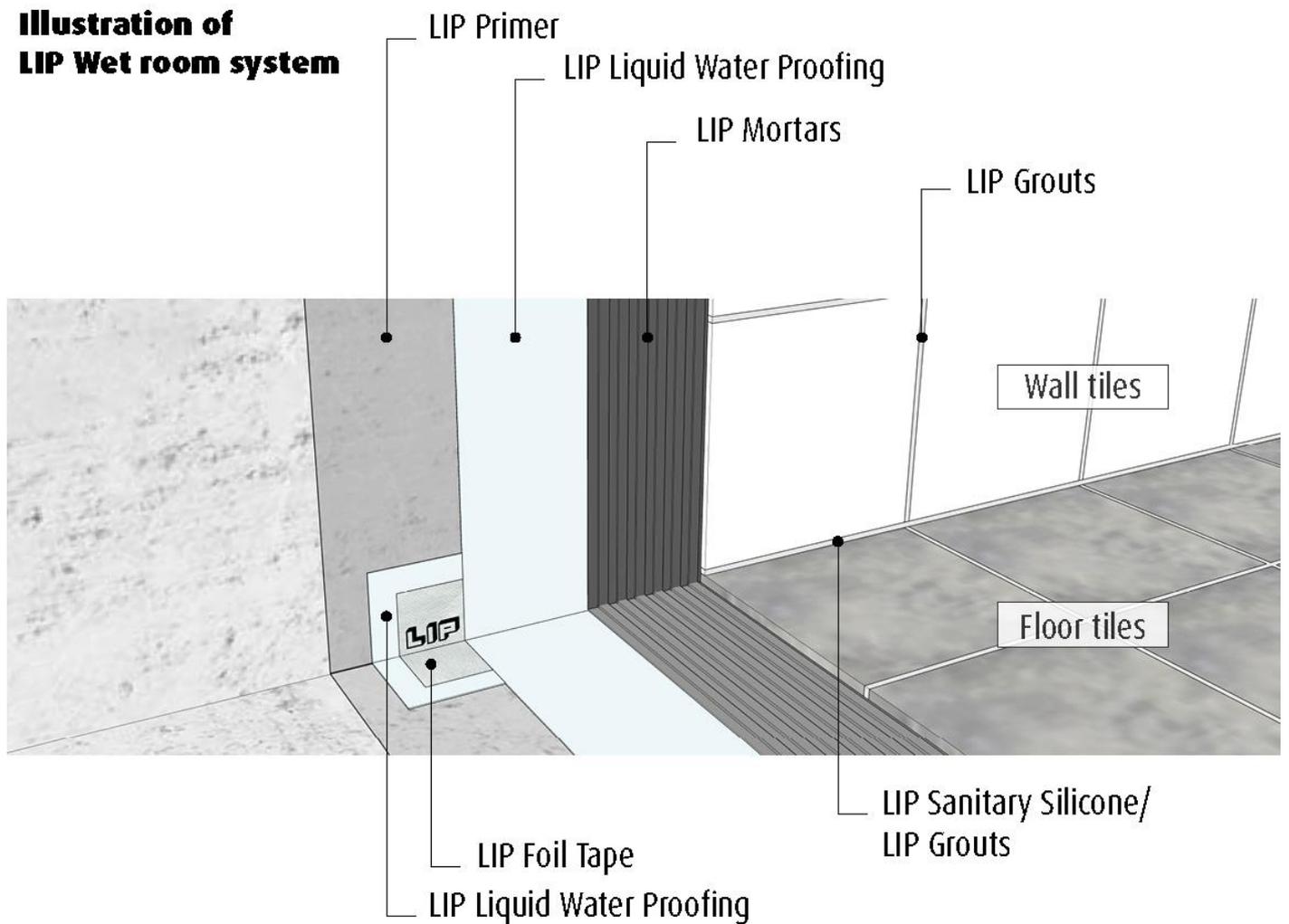
Tests were made with LIP “VS 20 primer” and LIP “Vandtætningspasta” (LIP “Cement” and LIP “Vandtætningsbinder”). The below tables illustrates the tests and the obtained values:

Test 1	Z_p [GPa s m²/kg]	Test conditions	Equivalent Z_v [s/m]	Equivalent S_d [m]
1 × 160 g/m ² LIP ”VS 20 Primer” + 1 × 120 g/m ² LIP ”VS 20 Primer” + 1 x 1797 g/m ² LIP ”2K Vådumssystem”	218	T _{chamber} 23,3 °C RF _{cup} 100 % RF _{chamber} 75 %	1.600.000	42,5

Test 2	Z_p [GPa s m²/kg]	Test conditions	Equivalent Z_v [s/m]	Equivalent S_d [m]
1 × 160 g/m ² LIP ”VS 20 Primer” + 1 × 120 g/m ² LIP ”VS 20 Primer” + 1 x 1797 g/m ² LIP ”2K Vådumssystem”	236	T _{chamber} 23,3 °C RF _{cup} 94 % RF _{chamber} 50 %	1.700.000	46,1

LIP “2K Vådumssystem” watertight covering kit	Annex 1 of European Technical Assessment ETA-14/0003
Vapour permeability characteristics	

**Illustration of
LIP Wet room system**



LIP “2K Vådrumssystem” watertight covering kit

Annex 2

Principle build-up of the kit

of European Technical Assessment
ETA-14/0003