



European Technical Assessment

ETA 17/0475
of 16/06/2017

I General Part

Technical Assessment Body issuing the ETA	VTT Expert Services Ltd
Trade name of the construction product	Lakka Watertight covering kit
Product family to which the construction product belongs	Liquid applied waterproofing kit for wet room floors and walls
Manufacturer	Lakan Betoni Oy P.O. Box 42 FI-80101 Joensuu
Manufacturing plant	Plant A
This European Technical Assessment contains	6 pages including 1 Annex which forms an integral part of this assessment.
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	Guideline for European Technical Approval ETAG No 022-1, Watertight covering kits for wet room floors and/or walls. Part 1: Liquid applied coverings with or without wearing surface. Edition April 2007 used as European Assessment Document (EAD).

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product

Lakka waterproofing system is a liquid applied water proofing kit. The kit is used as watertight covering for wet room floors and walls beneath a wearing surface.

The kits consist of the following components:

Primer

Lakka Primer is a one component polymer dispersion which is used for all substrates. The primer improves adhesion between membrane and substrate. A total consumption of the primer is about 0,1 kg/m².

Membrane

Lakka Vedeneriste is one-component liquid applied polymer dispersion. The minimum dry film thickness of the membrane is 0,5 mm. The dry film thickness is usually achieved with a consumption of 1,4 kg/m². At least two applications are needed to achieve mentioned dry film thickness.

Reinforcements

The reinforcements belonging to the kit are:

- Lakka Saumanauha (0,1 x 25 m and 0,2 x 25 m) used in connections between floor and wall and in joints, corners and pipe penetrations
- Lakka Lämpivientitiiviste ready-made reinforcement for wall and floor pipe penetrations
- Lakka Nurkkavahvike ready-made reinforcement for inner and outer corners
- Lakka Kaivolaippa and Lakka Kaivomansetti used in floor gully penetrations

Adhesives

Adhesives for tile fixings covered by this ETA are:

- Lakka Saneerauslaasti
- Lakka Saneerauslaasti S1
- Lakka Saneerauslaasti S2.

All adhesives are cement based.

2 Specification of the intended uses in accordance with the applicable European Assessment Document, EAD

2.1 Intended uses

The intended use of the covering kit is:

1. To act as watertight covering for use beneath a wearing surface, normally in form of ceramic tiles, on substrates of gypsum board, fibre cement board, cement bonded boards, with cement based screed smoothed masonry or light weight concrete and concrete.

The kit can be used with following type of floor gullies:

- plastic type PP floor gully with clamping ring.
2. Indoor applications, where the liquid applied kit is not exposed to temperatures (i.e. temperature of the structure) below 10 °C or above 40 °C, in the following uses:
 - Floors and walls in ordinary dwellings
 - Floors and walls in public wet rooms, schools and sport facilities (excluding swimming halls).

2.2 Working life

The provisions made in this European Technical Assessment are based on an assumed intended working life of the kit of 25 years, provided that the kit is 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

Basic requirement Essential characteristics	ETAG/ EAD Clause No.	Assessment of characteristic
BWR 1. Mechanical resistance and stability		Not relevant
BWR 2. Safety in case of fire		
Reaction to fire	2.4.1	No performance assessed
BWR 3. Hygiene, health and the environment		
Release of dangerous substances	2.4.2	The kit does not contain/release dangerous substances specified in TR 034, dated October 2015*
Vapour permeability	2.4.3	Lakka Primer 100 g/m ² and Lakka Vedeneriste 1,4 kg/m ² : W= 150 x 10⁻¹² (kg/m² Pa)
Water tightness	2.4.4.1	Watertight
Crack bridging ability	2.4.4.2	Lakka Primer 100 g/m ² and Lakka Vedeneriste 1,4 kg/m ² Assessment category 1 , Crack width 0,4 mm:
Bond strength	2.4.4.3	Assessment category 2 : Bond strength ≥ 0,5 MPa Lakka Vedeneriste with Lakka Primer and the following tile adhesives on concrete substrate: - Lakka Saneerauslaasti - Lakka Saneerauslaasti S1 - Lakka Saneerauslaasti S2
Scratching resistance	2.4.4.4	No performance assessed
Joint bridging ability	2.4.4.5	Lakka Vedeneriste with Lakka Primer and Lakka Saumanauha Assessment category 2 : Watertight
Water tightness around penetrations	2.4.4.6 Annex A Annex F	Lakka Vedeneriste with Lakka Primer and Lakka reinforcements as described in clause 1** Assessment category 2 : Watertight
BWR 4. Safety and accessibility in use		
Slipperiness of floors	2.4.5	No performance assessed
BWR 5. Protection against noise		Not relevant
BWR 6. Energy economy and heat retention		Not relevant
BWR 7. Sustainable use of natural resources		Not relevant
General aspects relating to the performances of the construction product		

Aspects of durability and serviceability:		
Resistance to temperature	2.4.6.1	Lakka Vedeneriste with Lakka Primer and the following tile adhesives on concrete substrate: - Lakka Saneerauslaasti - Lakka Saneerauslaasti S1 - Lakka Saneerauslaasti S2 Assessment category 2: Bond strength $\geq 0,5$ MPa and requirement for crack bridging ability is fulfilled.
Resistance to water	2.4.6.2	Assessment category 2: Bond strength $\geq 0,5$ MPa Lakka Vedeneriste with Lakka Primer and the following tile adhesives on concrete substrate: - Lakka Saneerauslaasti - Lakka Saneerauslaasti S1 - Lakka Saneerauslaasti S2
Resistance to alkalinity	2.4.6.3	Assessment category 2: Bond strength $\geq 0,5$ MPa Lakka Vedeneriste with Lakka Primer and the following tile adhesives on concrete substrate: - Lakka Saneerauslaasti - Lakka Saneerauslaasti S1 - Lakka Saneerauslaasti S2
Resistance to mechanical wear	2.4.6.6	Not relevant
Cleanability	2.4.7.1	Not relevant
Reparability	2.4.7.2	Repairable
Thickness	2.4.7.3	The minimum thickness of the membrane shall be 0,5 mm. This is normally achieved with total wet consumption of 1400 g/m ² .
Applicability	2.4.7.4	Applicable

*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.

**The kit has been tested with the following floor gully types: circular PP gully with clamping ring (Vieser and Merika) using Lakka Kaivolaippa and Lakka Kaivomansetti.

Aspects related to the performance of the product

The performance of the watertight 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 shall be used
- the appropriate tools shall be used and adjuvant precautions shall be taken
- inspecting the substrate surface for cleanliness and firmness and correct treatment
- inspection in the process of establishing the kit and of the finished watertight membrane and documentation of the results

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 MDT deposited to this ETA.

4 Assessment and verification of constancy of performance (hereinafter AVCP)

According to the decision 2003/655/EC of the European Commission, the system of assessment and verification of constancy of performance (see Annex V to the 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.

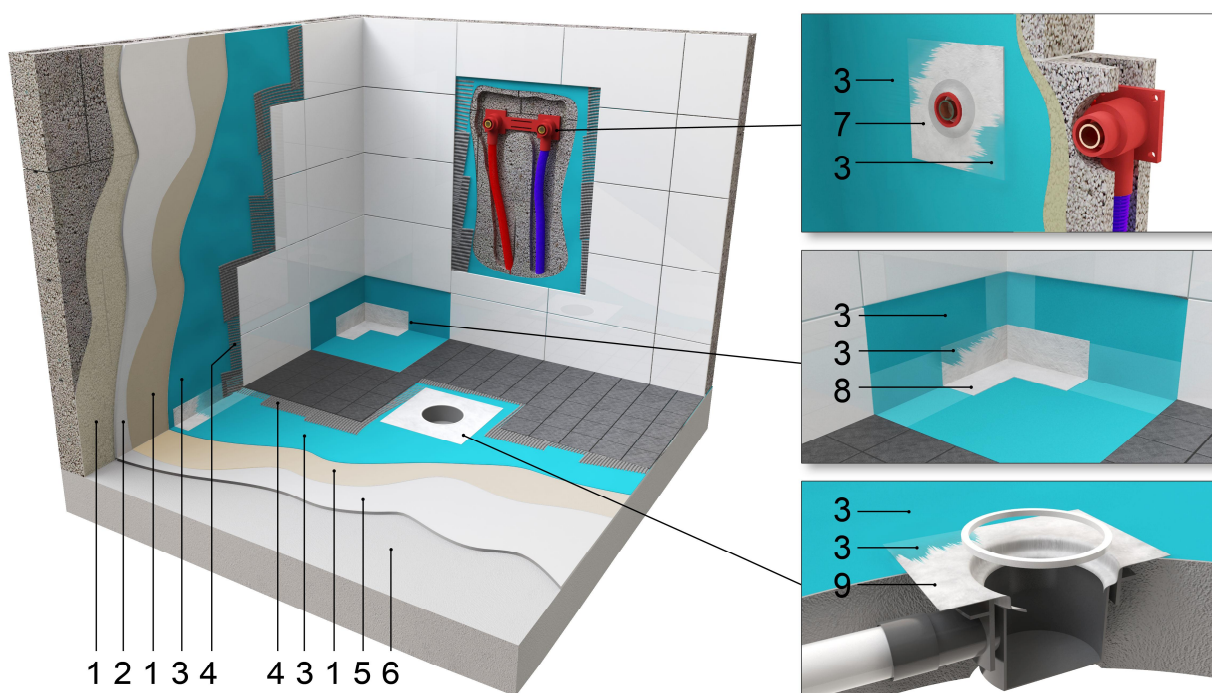
Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at VTT Expert Services Ltd.

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1 Principal build-up of Lakka Watertight covering kit



1. Lakka Primer

(2. Lakka cement based wall plaster, not part of Lakka Watertight covering kit)

3. Lakka Vedeneriste

4. Lakka Saneerauslaasti, Lakka Saneerauslaasti S1, Lakka Saneerauslaasti S2

(5. Lakka cement based floor screed, not part of Lakka Watertight covering kit)

(6. Lakka Dispersion floor screed primer, not part of Lakka Watertight covering kit)

7. Lakka Läpivientitiiviste

8. Lakka Nurkkavahvike

9. Lakka Kaivolaippa / Lakka Kaivomansetti