

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

ETA-17/0235  
of 2 May 2017

English translation prepared by DIBt - Original version in German language

### General Part

Technical Assessment Body issuing the  
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

FESCON WS System

Product family  
to which the construction product belongs

Liquid applied watertight covering for wet rooms with  
wearing surface

Manufacturer

Fescon Oy  
Hämeenkatu 9  
05800 HYVINKÄÄ  
FINNLAND

Manufacturing plant

Produktionsanlage 5800

This European Technical Assessment  
contains

11 pages including 5 annexes which form 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 of "Watertight  
Covering Kits for Wet Room Floors and/or Walls",  
ETAG 022 Part 1: "Liquid Applied Coverings with or  
without Wearing Surface",  
used as European Assessment Document (EAD)  
according to Article 66 Paragraph 3 of Regulation (EU)  
No 305/2011.

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## Specific part

### 1 Technical description of the product

The watertight covering "Fescon WS-System" is a kit. It consists of the following components:

- Primer "FESCON Tartuntapohjuste KP" on the basis of styrol-butadien or "FESCON Primer DSF" on the basis of a polymer dispersion
- one-component liquid waterproofing membrane "FESCON WS" on the basis of styrol-butadien
- sealing tape Type "FESCON Vedeneristenauha FS-N", "FESCON Vedeneristenauha VE-N"
- sealing ingoing and outgoing corners Type "FESCON Sisäkulma FS-S", "FESCON Sisäkulma VE-S" or "FESCON Ulkokulma FS-U", "FESCON Ulkokulma VE-U"
- sealing sleeves for walls "FESCON Lämpivientilaippa FS-L 10/40/70",
- sealing sleeves for floor gullies "FESCON Lämpivientilaippa FS-L 100", or "FESCON Kaivolaippa jousto KL-B"

The kit is used with adhesives according to EN 12004<sup>1</sup>

FESCON Saneerauslaasti VSL

FESCON Saneerauslaasti ILL

FESCON Saneerauslaasti SL

FESCON Pikasaneerauslaasti QL

The kit is intended to be used under a wearing surface, e.g. tiles. The wearing surface and the jointing material are not part of the kit, but are considered during the assessment of the intended use of the product.

Annex A1 shows the system build-up and annex A2 to A4 shows the components for sealing details.

### 2 Specification of the intended use in accordance with the applicable European Assessment Document

The intended use of the watertight covering under a wearing surface is to create a floor and wall watertight covering for indoor wet areas at possible operating temperature of 5 °C till 40 °C.

The following uses are intended:

- Floor and/or wall surfaces with only occasional direct exposure to water, e. g. at a good distance from shower or bathtub;
- Floor and/or wall in shower areas or around bathtubs used for a few showers daily, e. g. in ordinary dwellings, multifamily houses and hotels;
- Floor and/or 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 watertight membrane is intended to be used on flexible substrate e. g. plywood, chipboard, gypsum, anhydrite or similar material vulnerable to water and on rigid substrates e. g. masonry or concrete.

<sup>1</sup> EN 12004:2014-02 Adhesives for tiles - Requirements, evaluation of conformity, classification and designation

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The product should be used in connection with the following types of gullies:

Stainless steel or plastics – type PP or PE – with flange for attaching of collar/membrane or with clamping ring and collar.

The gullies are not part of the kit. It is up to the responsibility of the user to use suitable products of the given types.

The performances given in Section 3 are only valid if the watertight covering kit is used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the watertight covering kit of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, 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

#### 3.1 Mechanical resistance and stability (BWR 1)

Not applicable

#### 3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	See Annex A1

#### 3.3 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
contain dangerous substances	
Component: Tile adhesive (CE-marked)	According to EN 12004
Other components: Carcinogenic substances, classified as EU-Kat. Carc. 1A/1B (H350, H350i) and mutagenic substances, classified as EU-Kat. Muta. 1A/1B (H340), according to the regulation (EG) Nr. 1272/2008.	No activ dangerous substances in these components <sup>2</sup>
release dangerous substances	
release scenario concerning BWR 3: IA2, IA3 (according to EOTA TR 034)	npa
Vapour permeability	See Annex A1, declared value
Watertightness	See Annex A1
Crack bridging ability	See Annex A1, category
Bond strength	See Annex A1, category
Scratching resistance	See Annex A1, declared value
Joint bridging ability	See Annex A1, category
Watertightness around penetrations	See Annex A1, category

<sup>2</sup> The evaluation based on the manufactured' s declarations.

English translation prepared by DIBt

### 3.4 Safety and accessibility (BWR 4)

Essential characteristic	Performance
Slipperiness	See Annex A1, declared value

### 3.5 Protection against noise (BWR 5)

Not applicable

### 3.6 Energy economy and heat retention (BWR 6)

Not applicable

### 3.7 Sustainable use of natural resources (BWR 7)

For the sustainable use of natural resources no performance was investigated for this product.

### 3.8 General aspects

The verification of durability and serviceability is part of testing the essential characteristics and by additional tests on the kit respectively on the components:

Essential characteristic	Performance
Resistance to temperature	See Annex A1, category
Resistance to water	See Annex A1, category
Resistance to alkalinity	See Annex A1, category
Resistance to mechanical wear	See Annex A1, declared value
Cleanability	See Annex A1, declared value
Reparability	See Annex A1, statement of the manufacturer
Thickness	See Annex A1, declared value
Applicability	See Annex A1, declaration

The verification of durability and serviceability is only ensured if the specifications of intended use according to Annex B1 and the specifications of the technical file of the manufacturer are kept.

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

According to Decision of the Commission of 12 September 2003 (2003/655/EC) (OJ L 231 of 17.09.2003, p. 12) the system of assessment and verification of constancy of performance (see Annex V and Article 65 Paragraph 2 to Regulation (EU) No 305/2011) given in the following table applies.

Product	Intended use(s)	Level or class	System
Watertight covering kits for wetroom floors and walls	For building works	-	2+
	For uses subject to regulation on reaction to fire	E	3

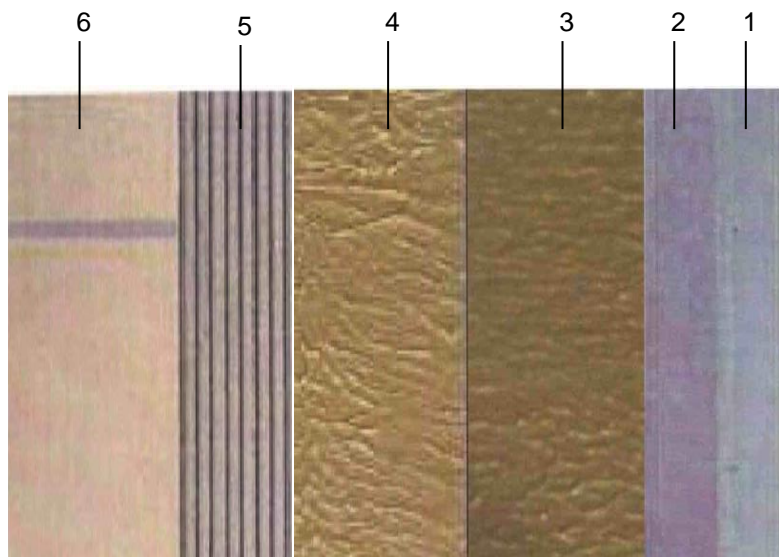
**5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD**

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 2 May 2017 by Deutsches Institut für Bautechnik

Andreas Kummerow  
Head of Department

*beglaubigt:*  
Gnamou



- 1 Substrate
- 2 Primer "FESCON Tartuntapohjuste KP" or "FESCON Primer DSF"
- 3 1<sup>st</sup> layer "FESCON WS"
- 4 2<sup>nd</sup> layer "FESCON WS"
- 5 Adhesive  
FESCON Saneerauslaasti VSL  
FESCON Saneerauslaasti ILL  
FESCON Saneerauslaasti SL  
FESCON Pikasaneerauslaasti QL
- 6 Tiles (not part of the kit)

Minimum layer thickness of the waterproofing sheet 0.5 mm

Level of use categories according to ETAG 022 with relation to:

Use category related to BWR 3	IA2, S/W3
Crack bridging ability	category 1: 0.4 mm
Bond strength	category 2: $\geq 0.5$ MPa
Joint bridging ability	category 2: watertight
Water tightness around penetrations	category 2: watertight
Resistance to water	category 2: $\geq 0.5$ MPa
Resistance to alkalinity	category 2: $\geq 0.5$ MPa

Performance of the product:

Working life	25 years
Reaction to fire acc. to EN 13501-1	class E
Statement on dangerous substance	see section 3.3
Water vapour diffusion resistance factor FESCON Tartuntapohjuste KP with FESCON WS (1000 g/m <sup>2</sup> ) 23 °C – 50/93 % r.h.	$s_d = 2,3$ m
FESCON Primer DSF (460 g/m <sup>2</sup> ) with FESCON WS (1000 g/m <sup>2</sup> ) 23 °C – 75/100 % r.h.	$s_d = 79$ m
Water tightness acc. to EN 13967	watertight
Scratch resistance	not relevant acc. ETAG 022-1
Resistance to mechanical wear	not relevant acc. ETAG 022-1
Cleanability	not relevant acc. ETAG 022-1
Reparability	reparable
Slipperiness	npa
Applicability	applicable
Resistance to temperature	category 2: $\geq 0,5$ MPa

**FESCON WS System**  
FESCON Oy

**System built-up, levels of use categories and performances of the product**

Annex A1

**Sealing tape:**



FESCON Vedeneristenauha FS-N



FESCON Vedeneristenauha VE-N

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**FESCON WS System**  
FESCON Oy

**Details and components**

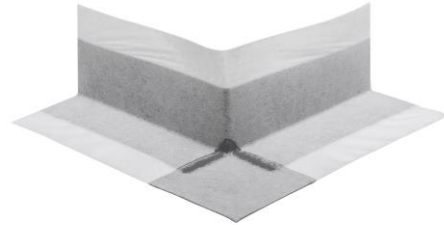
Annex A2



Ingoing/outgoing corners:



FESCON Sisäkulma FS-S



FESCON Ulkokulma FS-U



FESCON Sisäkulma VE-S



FESCON Ulkokulma VE-U

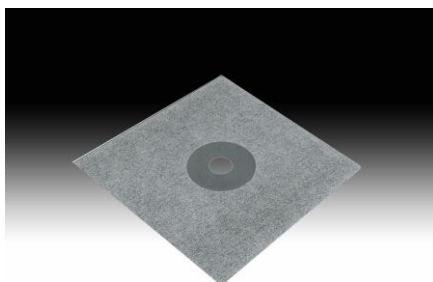
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**FESCON WS System**  
FESCON Oy

**Details and Components**

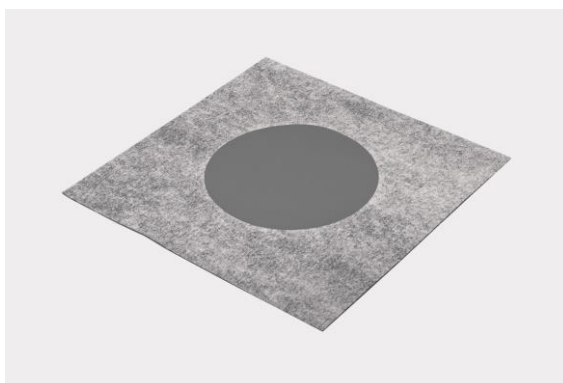
Annex A3

**Sealing sleeves for walls:**



FESCON Lävientilaippa FS-L 10, FS-L 40, FS-L 70

**Sealing sleeves for floors:**



FESCON Lävientilaippa FS-L 100



FESCON Kaivolaippa jousto KL-B

**FESCON WS System**  
FESCON Oy

**Details and components**

Annex A4

## Installation

The levels of use categories and the performance of the waterproofing kit can be assumed only, if the installation is carried out according to the installation instructions stated in the technical file of the manufacturer, in particular taking account of the following points:

- installation by appropriately trained personnel,
- installation of only those components which are specified components of the kit,
- installation with the required tools and adjuvant,
- precautions during installation,
- inspecting the substrate surface for cleanliness and correct treatment,
- inspecting during installation and of the finished watertight membrane and documentation of the results.

<b>FESCON WS System</b> FESCON Oy	Annex B
<b>Intended use</b> Specifications	