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MEMBER OF EOTA



European Technical Assessment ETA-17/0772 of 2022/01/04

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:

Sikalastic®-220W watertight covering kit

Product family to which the above construction product belongs:

Liquid applied watertight covering kit for wet room floors and walls

Manufacturer:

Sika Service AG
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Manufacturing plant:

Sika Deutschland GmbH
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D-48720 Rosendahl

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 - Liquid applied watertight covering kits for wet room floors and/or walls

This version replaces:

The ETA with the same number issued on 2018-05-14

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product

Technical description of the product

General

Sikalastic®-220W watertight covering kit for wet rooms is a one component system consisting of a liquid membrane on plastic dispersion base and associated components, such as primer, reinforcements and adhesives and serves as a watertight covering for wet room floors and walls beneath a wearing surface.

The wearing surface can be made from tiles and tile adhesives as mentioned below in the section “Adhesives” or can be made from a wearing surface directly applied to the membrane, see under “Alternative wearing surface”.

The kit consists of the following components:

Primer

Sikafloor®-01 Primer, which is a single component synthetic resin dispersion primer, and Sikafloor®-03 Primer, or a layer of Sikafloor®-02 Primer, which is a single component solvent free acrylate dispersion primer for various substrates. These primers are not intended to have a significant additional function in limiting the water vapour permeability of the kit.

Alternatively, for applications where the primer is intended to have a significant additional function in limiting the water vapour permeability of the kit SikaCeram® – 940 Vapor Proof can be used, which is a single component polyvinylidene chloride dispersion

Membrane

The membrane is a one component system consisting of Sikalastic®-220W liquid membrane on plastic dispersion base.

Reinforcement

The reinforcement is Sika® SealTape B or Sika® SealTape F which is used in connection between walls, in corners and around penetrations. Sika® SealTape F is embedded in layers of Sikalastic®-220W membrane whereas Sika® SealTape B and Sika® Sealing Tape Butyl are self-adhesive. Readymade fitting pieces Sika® SealTape F Inside Corner for sealing inside corners and Sika® SealTape F Outside Corner for sealing outside corners are embedded in layers of Sikalastic®-220W membrane. Reinforcement around pipe penetrations in floors and wall is established with Sika® SealTape F D, which are available in various sizes depending on the

pipe diameter. For sealing penetrations around the gullies Sika® Sealing Tape Butyl or Sika® Sealing Tape Butyl long sealing cuff or Sika® SealTape F Floor patch is used, depending on the working principle and installation principle of the gully.

Adhesives

Adhesives covered by this ETA is SikaCeram®-250 StarFix, SikaCeram®-260 StarFlex, SikaCeram®-270 MultiFlow, SikaCeram®-290 StarLight, SikaCeram®-295 StarS2, SikaCeram®-355 StarPaste, SikaCeram®-204 Medium, SikaCeram®-204 Medium White, SikaCeram®-250 StarFix White, SikaCeram®-250 StarFix Rapid, SikaCeram®-260 StarFlex White, SikaCeram®-275 Marble & Stone

Alternative wearing surface

The wearing surface can also be made up from:

- **Sikagard®-403W** consisting of a layer of Sika Reemat Lite embedded in Sikalastic®-220W. After drying approx. 280 g/m² Sikagard-403W thinned with 5 % water is applied. The wearing surface is completed with two 140 g/m² layers of Sikagard® Wallcoating Systems
- **Sikafloor®-330** consisting of 2800 g/m² Sikafloor®-330 applied in two coatings. The wearing surface is completed with the Sika Comfortfloor PS-23 system.
- **Sikafloor®-3240** consisting of 3600 g/m² Sikafloor®-3240 applied in two coatings. Quartz sand 0,7-1,2 mm is spread out evenly, by hand and by light brushing, over the still fresh Sikafloor®-3240. The wearing surface is completed with the Sika Multiflex PB-32 system, Sikafloor-378 or Sikafloor-390N.

Kit

The kit is constructed as follows:

- a layer of minimum 40 - 75 g/m² Sikafloor®-01 Primer (depending on substrate) or 150 g/m² Sikafloor®-03 Primer (depending on substrate) and a layer Sikafloor®-02 Primer or 2 layers Sikafloor®-02 Primer (150 g/m² + 100 g/m²) or 2 layers SikaCeram® – 940 Vapor Proof (150 g/m² + 100 g/m²).
- reinforcement of in- and outgoing corners in walls, over joints or cracks in the substrate along the connection between floor and wall with the Sika® Sealing Tape Butyl or with Sika® SealTape F sealing tape, which is embedded in a layer of Sikalastic®-220W membrane. Readymade fitting

pieces Sika® SealTape F Inside Corner for sealing inside corners and Sika® SealTape F Outside Corner for sealing outside corners are embedded in layers of Sikalastic®-220W membrane.

Reinforcement around pipe penetrations in floors and wall is established with Sika® SealTape F D, which are available in various sizes depending on the pipe diameter. For gullies the Sika® Sealing Tape Butyl or Sika® Sealing Tape Butyl long sealing cuff or Sika® SealTape F Floor patch is used depending on the working principle and installation principle of the gully

- at least 1130 g/m² one component Sikalastic®-220W distributed evenly over the surface in at least two applications
- a layer of ceramic tiles adhered to the kit with cement based or dispersion based tile adhesive or alternative wearing surface as described.

Note that the above mentioned amount of Sikalastic®-220W corresponds to a dry film thickness of 0,4 mm (see section 3.7)

2 Specification of the intended use 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, on substrates of 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) Drain with fleece flange; b) Drain with a plastic or metal flange and screwed clamping ring; c) Channel drain stainless steel with rear wall clip or channel drain with a plastic flange; d) Corner drain stainless steel.

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
3.2 Safety in case of fire (BWR2)	
Reaction to fire	Euroclass E
3.3 Hygiene, health and the environment (BWR3)	
Dangerous substances	The kit does not contain/release dangerous substances *)
Vapour permeability	<p>The vapour permeability of the Sikalastic®-220W membrane with primer when tested at 23°C and RH 93 → 50 %:</p> <p>The s_d value of the kit without primer applied to the gypsum board is 18,7 m, which is equivalent to $Z_v = 701.250$ s/m with 1130 g/m² Sikalastic®-220W membrane in two applications</p> <p>The vapour permeability of the Sikalastic®-220W with SikaCeram® – 940 Vapor Proof primer when tested at 23°C and RH 75 → 100 %:</p> <p>The s_d value of the kit with primer applied to the gypsum board is 57,7 m, which is equivalent to $Z_v = 2.162.691$ s/m with 250 g/m² SikaCeram® – 940 Vapor Proof in two applications and 1350 g/m² Sikalastic®-220W membrane in two applications</p> <p>The s_d value of the kit with primer applied to the gypsum board is 51,4 m, which is equivalent to $Z_v = 1.925.444$ s/m with 250 g/m² SikaCeram® – 940 Vapor Proof in two applications and 1130 g/m² Sikalastic®-220W membrane in two applications</p>
Moisture resistance	
Water tightness	Watertight according to EN 14891
Crack bridging ability	<p>1,13 kg/m² membrane Sikalastic®-220W applied in two layers (equivalent thickness of membrane = 0,4 mm) Assessment category 1: Crack width 0,4 mm</p> <p>1,35 kg/m² membrane Sikalastic®-220W applied in two layers (equivalent thickness of membrane = 0,5 mm) Assessment category 2: Crack width 0,75 mm</p>

Characteristic	Assessment of characteristic
Bond strength	<p>Sikalastic®-220W membrane and the each of the tile adhesives mentioned in section II.1 of this ETA on a concrete substrate all comply with Assessment category 2: Bond strength > 0,5 MPa</p> <p>Sikalastic®-220W membrane and the each of the tile adhesives mentioned in section 1 of this ETA 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 Assessment category 2: Bond strength > 0,5 MPa</p> <p>Sikalastic®-220W membrane and the each of the alternative wearing surfaces mentioned in section II.1 of this ETA on a concrete substrate all comply with Assessment category 2: Bond strength > 0,5 MPa</p>
Scratching resistance	<p>Sikalastic®-220W membrane in combination with wearing surface either Sikagard®-403W, Sikafloor®-330 or Sikafloor®-3240 comply with Assesment category 2: Watertight</p>
Joint bridging ability	<p>Sikalastic®-220W membrane in combination with either Sika® SealTape B or Sika® SealTape F comply with Assesment category 2: Watertight</p>
Water tightness around penetrations	<p>Sikalastic®-220W membrane with reinforcements as described in section 1 of this ETA***) comply with Assesment category 2: Watertight</p>
Resistance to temperature	<p>Assessment category 2:</p> <p>Bond strength > 0,5 MPa</p> <p>Crack bridging ability after ageing: 1,13 kg/m² membrane Sikalastic®-220W applied in two layers (equivalent thickness of membrane = 0,4 mm) Assessment category 1: Crack width 0,4 mm</p> <p>1,35 kg/m² membrane Sikalastic®-220W applied in two layers (equivalent thickness of membrane = 0,5 mm) Assessment category 2: Crack width 0,75 mm</p>
Resistance to water	<p>Assessment category 2: Bond strength > 0,5 MPa</p>
Resistance to alkalinity	<p>Assessment category 2: Bond strength > 0,5 Mpa</p>
Resistance to mechanical wear	<p>No performance is assessed for the alternative wearing surface</p>

Characteristic	Assessment of characteristic
3.4 Safety in use (BWR4)	
Slipperiness	No performance is assessed for the alternative wearing surface
Reparability	Repairable No performance is assessed for the alternative wearing surface
Thickness	The required weight (wet) of the Sikalastic®-220W membrane is 2,83 kg/m ² pr. mm dry thickness of the layer The minimum thickness of the membrane shall be 0,4 mm.

*) 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.

**) In accordance with the provisions of the EAD – Annex A, the kit has been tested with the following types of floor gullies; a) Drain with fleece flange; b) Drain with a plastic or metal flange and screwed clamping ring; c) Channel drain stainless steel with rear wall clip or channel drain with a plastic flange; d) Corner drain stainless steel.

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 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+.

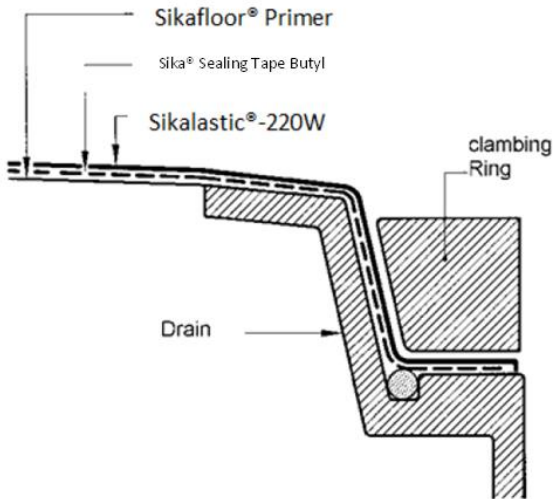
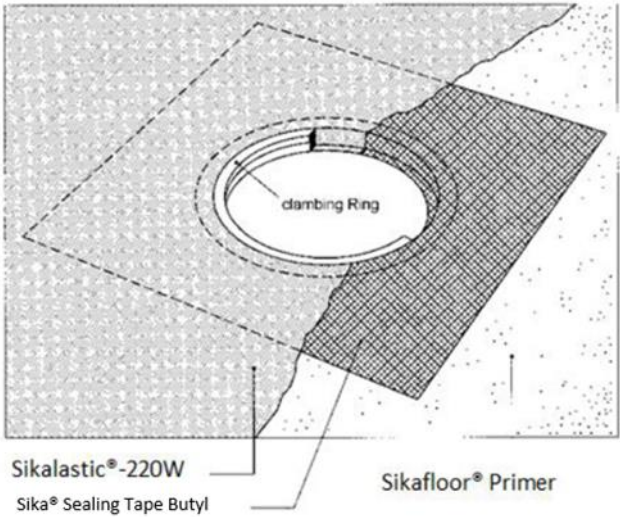
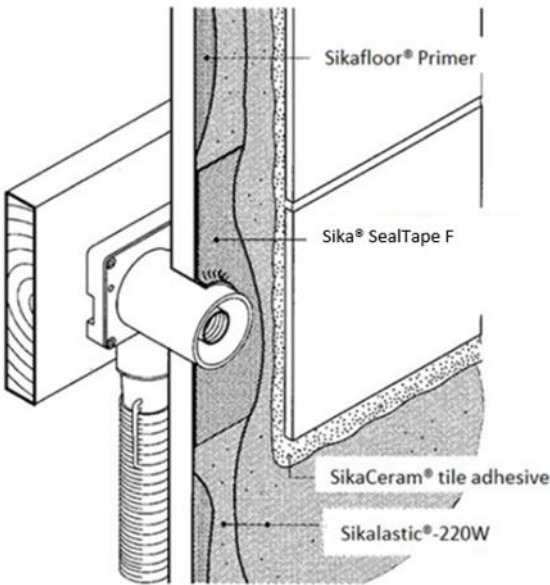
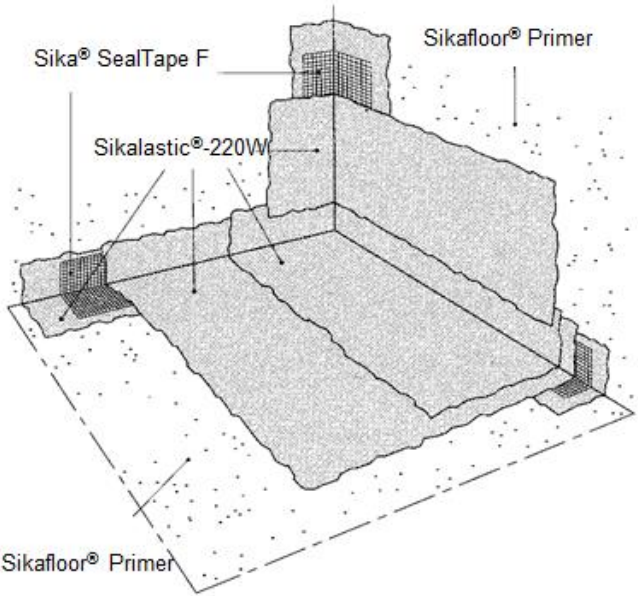
5 Technical details necessary for the implementation of the AVCP system, as foreseen in the applicable EAD

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 2022-01-04 by



Thomas Bruun
Managing Director, ETA-Danmark



Sikalastic®-220W watertight covering kit

Principle build-up of the kit

Annex 1
of European Technical
Assessment
ETA-17/0772