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European Technical Assessment ETA-17/0772 of 2018/05/14

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 Deutschland GmbH Alfred-Nobel-Strasse 6 D-48720 Rosendahl Telephone + 49 2547 910-0 Telefax +49 2547 910-101 Internet www.schoenox.de Sika Deutschland GmbH Alfred-Nobel-Strasse 6 D-48720 Rosendahl

Manufacturing plant:

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:

Guideline for European Technical Approval ETAG No 022 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).

This version replaces:

With the same number issued on 2017-11-20

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product and intended use

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.

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 is 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 D14 or SCHÖNOX ST D, which are available in various sizes depending on the pipe diameter. For sealing penetrations around the gullies SCHÖNOX ST BC or SCHÖNOX ST BC-L 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

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).
- 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® SealTape B sealing tape 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 Sikalastic®-220W Reinforcement around pipe penetrations in floors and wall is established with Sika® SealTape F D14 or SCHÖNOX ST D, which are available in various sizes depending on the pipe diameter. For gullies the SCHÖNOX BC or SCHÖNOX BC-L 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 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 DS specified in TR 034, dated March 2012 *)			
Vapour permeability	The vapour permeability of the Sikalastic [®] -220W membrane with primer when tested at 23°C and RH 93 \rightarrow 50 %:			
	The s_d value of the kit without primer applied to the gypsum board is 18,7 m, which is equivalent to $Z_v = 701.250 \text{ s/m}$ with 1130 g/m ² Sikalastic [®] -220W membrane in two applications			
Moisture resistance				
Water tightness	Watertight according to EN 14891			
Crack bridging ability	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			
	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			
Bond strength	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			
	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			
	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			

Chai	racteristic	Assessment of characteristic	
	Scratching resistance	Sikalastic®-220W membrane in combination with wearing surface either Sikagard®-403W, Sikafloor®-330 or Sikafloor®-3240 comply with Assesment category 2: Watertight	
	Joint bridging ability	Sikalastic®-220W membrane in combination with either Sika® SealTape B or Sika® SealTape F comply with Assesment category 2 : Watertight	
	Water tightness around penetrations	Sikalastic®-220W membrane with reinforcements as described in section 1 of this ETA***) comply with Assesment category 2 : Watertight	
3.7	Related aspects of durability and serviceability		
	Resistance to temperature	Assessment category 2:	
		Bond strength > 0,5 MPa	
		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	
		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	
	Resistance to water	Assessment category 2 : Bond strength > 0,5 MPa	
	Resistance to alkalinity	Assessment category 2 : Bond strength > 0,5 Mpa	
	Resistance of alternative wearing surface to chemical and biological agents	No performance assessed	
	Cleanability of alternative wearing	No performance assessed	
	Reparability	Repairable	
		No performance assessed for alternative wearing surface	
	Thickness	The required weight (wet) of the Sikalastic®-220W membrane is 2,83 kg/m² pr. mm dry thickness of the layer	
		The minimum thickness of the membrane shall be 0,4 mm.	
	Applicability	Applicable	
	Sustainable use of natural resources (BWR7)	No performance determined	

^{*)} 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.

requirements need also to be complied with, when and where they apply.

**) In accordance with the provisions of ETAG 022 part 1 – 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

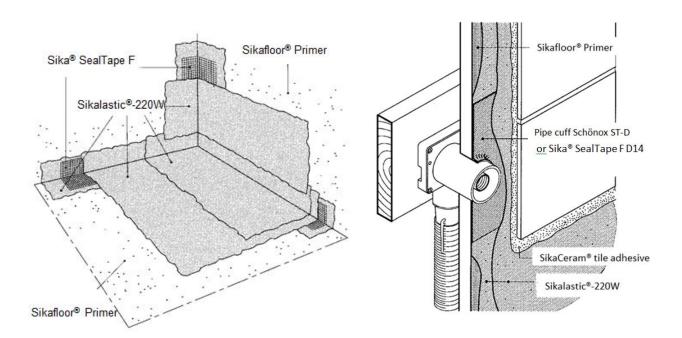
According to the decision 2003/655/EC of the European Commission as amended, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 2+.

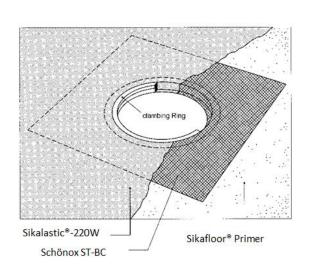
5 Technical details necessary for the implementation of the AVCP system, as foreseen in the applicable EAD

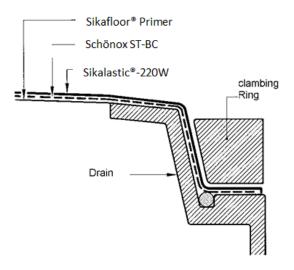
Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking

Issued in Copenhagen on 2018-05-14 by

Thomas Bruun Managing Director, ETA-Danmark







Sikalastic®-220W watertight covering kit	Annex 1
Principle build-up of the kit	of European Technical Assessment ETA-17/0772