

ETA-Danmark A/S Göteborg Plads 1 DK-2150 Nordhavn Tel. +45 72 24 59 00 Fax +45 72 24 59 04 Internet www.etadanmark.dk Authorised and notified according to Article 29 of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011



## European Technical Assessment ETA-11/0518 of 19/08/2015

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:	Casco Aquastop Watertight covering kit
Product family to which the above construction product belongs:	Liquid applied watertight covering kit for wet room floors and walls
Manufacturer: Manufacturing plant:	Sika Sverige AB Domnarvsgatan 15 Box 8061 163 08 Spånga Sweden Telephone +46 8 621 79 00 Internet www.casco.se SCHÖNOX GmbH Alfred-Nobel-Strasse 6 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:	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:	The ETA with the same number issued on 2014-09-16

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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

Casco Aquastop 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 kit consists of the following components:

#### Primer

Casco Primer, which is a single component synthetic resin dispersion primer and Casco Superprimer, 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 Casco Vapourstop can be used, which is a single component polyvinylidene chloride dispersion.

#### Membrane

The membrane is a one component system consisting of Casco Aquastop liquid membrane on plastic dispersion base.

#### Reinforcement

The reinforcement is Wetstop KL, Wetstop Tätband Butyl tape, Wetstop SH or Vinkelband 3647, which is used in connection between the walls and in corners and around pipe penetrations. Wetstop KL or Vinkelband 3647 is embedded in layers of Aquastop membrane whereas Wetstop Butyl tape and Wetstop SH are selfadheisve. Readymade fitting pieces Wetstop PC for sealing in inside corners and Wetstop PC-E for sealing external angles are embedded in layers of Aquastop. Reinforcement around pipe penetrations in floors and wall is established with Wetstop MP collars, which are available in various sizes depending on the pipe diameter. For gullies Wetstop MG or Wetstop MG-L is used depending on the working principle and installation principle of the gully

#### Adhesives

Adhesives covered by this ETA is Casco Multifix, Casco Multifix Premium, Casco Multifix Rapid, Casco Multifix White, Casco Floorflex Premium, Casco Superflex and Casco Elite

#### Kit

The kit is constructed as follows:

- a layer of minimum 40 75 g/m<sup>2</sup> Casco Primer (depending on substrate) or 150 g/m<sup>2</sup> Casco Superprimer (depending on substrate) and 2 layers Casco Vapourstop (150 g/m<sup>2</sup> + 100 g/m<sup>2</sup>).
- reinforcement of in- and out going corners in walls, over joints or cracks in the substrate, along the connection between floor and wall with the Wetstop KL or Vinkelband 3647, which is embedded in a layer of Aquastop membrane or with the self-adhesive synthetic rubber reinforcement tape. Reinforcement around pipe penetrations in floors and wall is established with Wetstop MP, which are available in various sizes depending on the pipe diameter. For gullies the Wetstop MG or Wetstop MG-L is used
- at least 1130 g/m<sup>2</sup> one component Aquastop distributed evenly over the surface in at least two applications
- a layer of ceramic tiles adhered to the kit with cement or dispersionbased tile adhesive.

Note that the above mentioned amount of Casco Aquastop 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, 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) Drain with a plastic or metal flange and screwed clamping ring; b) Channel drain stainless steel with rear

wall clip or channel drain with a plastic flange; c) 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)					Euroclass E
	Reaction to fire					
3.3	Hygiene, (BWR3)	health	and	the	environment	
Dangerous substances						The kit does not contain/release DS specified in TR 034 dated March 2012 *)
	Vapour permeability					The vapour permeability of the Casco Aquastop 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 s/m with 1350 g/m <sup>2</sup> Casco Aquastop membrane in two applications
						The vapour permeability of the Casco Aquastop with Casco Vapourstop primer when tested at 23°C and RH 75 $\rightarrow$ 100 %:
						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 Casco Vapourstop Primer in two applications and 1350 g/m <sup>2</sup> Casco Aquastop membrane in two applications
						The $s_d$ value of the kit with primer applied to the gypsur board is 51,4 m, which is equivalent to $Z_v = 1.925.444$ s/r with 250 g/m <sup>2</sup> Casco Vapourstop Primer in two applications and 1130 g/m <sup>2</sup> Casco Aquastop in two applications
	Moisture	e resistanc	ce			
	Water tig	ghtness				Watertight according to EN 14891
	Crack br	idging ab	oility			1,13 kg/m <sup>2</sup> membrane Casco Aquastop applied in two layers (equivalent thickness of membrane = 0,4 mm) Assessment category 1: Crack width 0,4 mm
						1,35 kg/m <sup>2</sup> membrane Casco Aquastop applied in two layers (equivalent thickness of membrane = 0,5 mm) Assessment category 2: Crack width 0,75 mm
	Bond str	ength				Casco Aquastop membrane and the each of the tile adhesives mentioned in section 1 of this ETA on a concret substrate all comply with Assessment category 2: Bond strength > 0,5 MPa
						Casco Aquastop membrane and the each of the tile adhesives mentioned in section 1 of this ETA on substrates**) of calcium silicate boards, gypsum boards,

Chai	racteristic	Assessment of characteristic	
		fibre cement boards, cement based boards and watertight boards made from a polystyrene core with a cement based glass fibre reinforced covering comply with <b>Assessment category 2</b> : Bond strength > 0,5 MPa	
	Scratching resistance	No performance determined	
	Joint bridging ability	Casco Aquastop membrane in combination with Casco Wetstop KL, Wetstop Tätband Butyl or Wetstop SH comply with Assesment category 2: Watertight	
		Casco Aquastop membrane in combination with Casco Vinkelband 3647 comply with Assesment category 1: Watertight	
	Water tightness around penetrations	Casco Aquastop membrane with reinforcements as described in section 1 of this ETA***) comply with <b>Assesment category 2</b> : 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/m <sup>2</sup> membrane Casco Aquastop applied in two layers (equivalent thickness of membrane = 0,4 mm) Assessment category 1: Crack width 0,4 mm	
		1,35 kg/m <sup>2</sup> membrane Casco Aquastop 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	
	Repairability	Repairable	
	Thickness	The required weight (wet) of the Casco Aquastop membra is $2,83 \text{ kg/m}^2 \text{ pr. mm}$ dry thickness of the layer	
		The minimum thickness of the membrane shall be 0,4 mm	
	Applicability	Applicable	

\*) 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 ETAG 022 part 1 - Annex A, the kit has been tested with the following types of floor gullies; a) floor drain, PP with

clamping ring, b) floor drain, PP with screwed clamping ring, c) floor drain, PEH with spring-loaded clamping ring.

#### 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

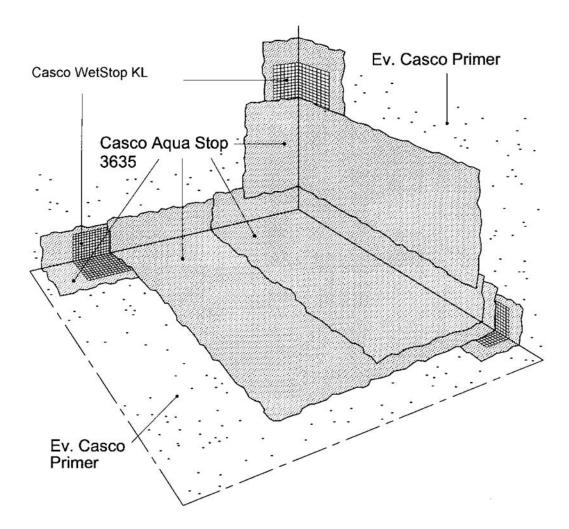
According to the decision 2003/655/EC of the European Commission as amended, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 2+.

# 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

Issued in Copenhagen on 2015-08-19 by

Thomas Bruun Managing Director, ETA-Danmark



 Casco Aquastop watertight covering kit
 Annex 1

 Of European Technical
 Assessment

 Principle build-up of the kit
 ETA-11/0518