

European Technical Assessment

ETA-23/0364
of 14/11/2023

General Part

Technical Assessment Body issuing the European Technical Assessment

SINTEF AS by its institute SINTEF Community

Trade name of the construction product

Aquapro membrane foil

Product family to which the construction product belongs

Watertight covering kits based on flexible sheets for wet room floors and or walls

Manufacturer

Byggtilbehørs Gruppen AS
Karenslyst allé 16
0278 Oslo
Norway

Manufacturing plant(s)

Byggtilbehørs Gruppen plant 1

This European Technical Assessment contains

9 pages including 0 Annex(es) 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

EAD 030436-00-0503 Watertight covering kits based on flexible sheets for wet room floors and or walls

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Specific parts

1. Technical description of the product

General

AquaPro Membrane Foil is a flexible sheet membrane kit which serves as a watertight covering for wet room floors and walls beneath a wearing surface. AquaPro Membrane Foil kit includes supplementary and associated AquaPro components such as a water- and vapour proof flexible sheet membrane, reinforcements and sealings, readymade fitting pieces for corners, pipe and drain gaskets, adhesives for membrane- and tiles. The membrane must always be covered with e.g., ceramic tiles or other surface material as protection.

AquaPro Membrane Foil kit consists of the following components:

Primer

AquaPro Primer, is a single component solvent dispersion primer for various substrates. The primer is not intended to have a significant additional function in limiting the water vapour permeability of the kit.

Adhesive for the membrane and components

Adhesives for the membrane to adhere to the substrate:

- AquaPro FoilTack Adhesive 2.0
- AquaPro Foil Adhesive 2.1.
- AquaPro Liquid Membrane 4.1
- AquaPro Liquid Membrane 4.2

Adhesives for AquaPro components:

- AquaPro FoilSeal MS 1.0
- AquaPro FoilTack Adhesive 2.0
- AquaPro Foil Adhesive 2.1.

Membrane

AquaPro Membrane Foil is a multiple layer waterproof membrane. The membrane is constructed with two outer layers of non-woven in polypropylene (PP) on a core of polyethylene (PE).

AquaPro Membrane Foil essential characteristics is defined by the thickness of the core material but can be customized in varying lengths and widths without changing the essential characteristics.

Reinforcement

AquaPro components is used in connection between the floor and the wall, in inside and outside corners and around pipe and floor drain penetrations, over joints or cracks and transitions in the substrate. Reinforcement around pipe penetrations in floors and wall and for floor drains is available in various sizes depending on the pipe diameter, type of drain and also depending on the working principle and installation.

All AquaPro components to be installed and embedded with AquaPro FoilSeal MS 1.0 or AquaPro FoilTack Adhesive 2.0 or AquaPro FoilTack Adhesive 2.1.

AquaPro components installed directly to the substrate (not on top of membrane-not exposed to direct water load) AquaPro Liquid Membrane 4.1 or AquaPro Liquid Membrane 4.2 can be used for installation not embedding.

Tile adhesives

Adhesives for ceramic tiles:

- AquaPro Tile Adhesive 3.1
- AquaPro Tile Adhesive 3.2
- AquaPro Tile Adhesive 3.3
- AquaPro Tile Adhesive 3.4
- AquaPro Tile Adhesive 3.5

2. Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

The intended use of the covering kit is:

1. The kit is used as a watertight covering for wet room floors and walls covered by an additional wearing surface. The kit may be used on dimensional stable substrates such as concrete, gypsum or XPS-board.

The kit can be used with the following types of floor gullies:

Circular and rectangular gullies made from stainless steel or plastic type PE with flange connection of the membrane, with various clamping ring connections (screwed-spring-without) or with prefabricated collar.

2. Indoor applications on floor and wall in bathrooms and washrooms in houses, hotels, or rooms with equivalent conditions. The membrane can be used on concrete substrate and building boards suitable for wet rooms. The membrane shall always be covered with tiles or other types of floor-/wall coverings. The kit is applied in within 5 °C to 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 covering kit is to be installed according to the manufacturer's installation manual.

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

Characteristic	Test method	Assessment of characteristic	
Safety in case of fire (BWR 2)			
2.2.1	Reaction to fire	EN 13501-1	Reaction to fire classification: E
Hygiene, health and the environment (BWR 3)			
2.2.2	Content, emission and/or release of dangerous substances	EN 16515 + Declaration from the manufacturer regarding REACH	No dangerous substances*) Aquapro Basic after 28 days: TVOC: <10 µg/m ³ Formaldehyde: <5 µg/m ³ Acetaldehyde: <5 µg/m ³ Volatile of carcinogenic: <1 µg/m ³ No substances detected REACH: Declaration from the manufacturer
2.2.3	Vapour permeability	EN ISO 12572, 93-50 % RH	Z _v : 2 688 000 s/m S _d : 73,8m Thickness of sample: 0,41 mm
		EN ISO 12572, 100-75 % RH	Z _v = 3 500 000 s/m S _d = 94m Thickness of sample: 0,38 mm
2.2.4	Water tightness	EN 1928 method A with 150 kPa for 7 days	Watertight
2.2.5	Crack bridging ability	EN 1062-7, Method C.2	Assessment category 2: Crack width 0,75 mm
2.2.6	Bond strength	EN 14891, A.6.2.	Assessment category 3: Bond strength ≥ 0.5 MPa Bond strength on concrete AquaPro membrane foil + Aquapro Foil Adhesive 2.1 Aquapro Tile Adhesive 3.1 Aquapro Tile Adhesive 3.2 Aquapro Tile Adhesive 3.3
		EN 14891, A.6.2.	Assessment category 3: Bond strength ≥ 0.5 MPa Bond strength on concrete AquaPro membrane foil, AquaPro FoilTack Adhesive 2.0 Aquapro Tile Adhesive 3.4 Aquapro Tile Adhesive 3.5
		EN 14891, A.6.2.	Assessment category 3: Bond strength ≥ 0.5 MPa Bond strength on concrete AquaPro membrane foil, AquaPro membrane liquid 4.1

		EN 14891, A.6.2.	Assessment category 3: Bond strength ≥ 0.5 MPa Bond strength on concrete AquaPro membrane foil, AquaPro membrane liquid 4.2
		EN 14891, A.6.2.	Assessment category 1: Bond strength 0.29 MPa Bond strength on gypsum AquaPro Primer Aquapro Foil Adhesive 2.1 AquaPro membrane foil, Aquapro Tile Adhesive 3.2
2.2.7	Scratching resistance	Not relevant	
2.2.8	Joint bridging ability	EAD-030352-00-0503, Annex B	Watertight, 2 mm AquaPro membrane foil, AquaPro FoilTack Adhesive 2.0, AquaPro Sealing tape 0,1x25M
			Watertight, 2 mm AquaPro membrane foil, AquaPro Primer and Aquapro Foil Adhesive 2.1, AquaPro Sealing tape 0,1x25M
2.2.9	Water tightness around penetrations**	EAD-030352-00-0503, Annex A	Watertight AquaPro membrane foil, Aquapro Foil Adhesive 2.1 and AquaPro reinforcements 7 days hardening time
		EAD-030352-00-0503, Annex A	AquaPro membrane foil, AquaPro Basic Foiltack Adhesive 2.0, and AquaPro reinforcements 7 days hardening time
		EAD-030352-00-0503, Annex A	AquaPro membrane foil, Aquapro Foil Adhesive 2.1, AquaPro FoilSeal MS 1.0 for sealing of AquaPro reinforcements 7 days hardening time
		EAD-030352-00-0503, Annex F	Watertight AquaPro membrane foil, AquaPro Basic adhesive and AquaPro reinforcements 7 days hardening time
		EAD-030352-00-0503, Annex F	Watertight AquaPro membrane foil, AquaPro Basic Foiltack Adhesive 2.0, and AquaPro reinforcements 7 days hardening time

		EAD-030352-00-0503, Annex F	Watertight AquaPro membrane foil, AquaPro Primer, AquaPro Basic Foiltack Adhesive 2.0, AquaPro FoilSeal MS 1.0 for sealing of AquaPro reinforcements 7 days hardening time
2.2.10	Resistance to temperature	EN 1296 + 12311-2 method A	Longitudinal direction Tensile strength (N/50mm): 146,2 ± 8,9 Elongation at max load (%): 90,3 ± 14,5 Transversal direction Tensile strength (N/50mm): 147 ± 4,2 Elongation at max load (%): 93,6 ± 8,3 Deviation from unaged material: Longitudinal direction Tensile strength 1,8 % Elongation at max load 10,4 % Transversal direction Tensile strength 0,7 % Elongation at max load -22,3%
2.2.11	Resistance to water	EN 14891, A.6.3.	Assessment category 3: Bond strength ≥ 0.5 MPa AquaPro membrane foil + Aquapro Foil Adhesive 2.1 Aquapro Tile Adhesive 3.1 Aquapro Tile Adhesive 3.2 Aquapro Tile Adhesive 3.3
		EN 14891, A.6.3.	Assessment category 3: Bond strength ≥ 0.5 MPa AquaPro membrane foil, AquaPro FoilTack Adhesive 2.0 Aquapro Tile Adhesive 3.4 Aquapro Tile Adhesive 3.5
2.2.12	Resistance to alkalinity	EN 1847 + 12311-2 method A	Longitudinal direction Tensile strength (N/50mm): 126 ± 20,2 Elongation at max load (%): 78,8 ± 36,6 Transversal direction Tensile strength (N/50mm): 148 ± 3,7 Elongation at max load (%): 107,4 ± 6,9 Deviation from unaged material: Longitudinal direction Tensile strength -12,3 % Elongation at max load - 3,7 % Transversal direction Tensile strength 1,2 % Elongation at max load -10,9%
2.2.13	Resistance to mechanical wear		Not relevant

2.2.14	Joint Strenght	EN 12317-2	Longitudal direction: 143 N/50 mm Transversal direction: 193 N/50 mm
2.2.15	Flexibility	EN ISO 24344, method A	Flexible
Safety in used (BWR 4)			
2.2.16	Slipperiness		Not relevant
2.2.17	Cleanability		Not relevant
2.2.18	Thickness	EN 1849-2	AquaPro Membrane Foil 1.0: 0,39 mm ± 0,03

*) 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.

**) In addition to the EAD test given in table 1, the following test has been performed: Repairability, according to EAD-030352-00-0503, Annex F. It has been tested wether AquaPro Membrane Foil is repairable. This has been done by mounting the foil membrane to a gysum board, cutting a hole in the test piece, repairing a hole with AquaPro Membrane Foil and test it in an Annex F test rig. The repairation did not lead to any leakages.

3.1 Methods of verification

The characteristic values of the watertight covering kit are based on the EAD 030436-00-0503. The European Technical Assessment is issued for the product based on agreed data/information, deposited with SINTEF, 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 SINTEF before the changes are introduced. SINTEF will decide if 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.

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

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 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 SINTEF AS.

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By

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