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European Technical Assessment Body
for construction products



European Technical Assessment

ETA-24/0207
of 6 May 2024

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General Part

Technical Assessment Body issuing the European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

Pro One XPS tile boards waterproofing system

Product family
to which the construction product belongs

Watertight covering kits based on inherently watertight boards for wet room floors and/or walls

Manufacturer

Jackon Insulation GmbH
Ritzlebener Straße 1
39619 Arendsee
DEUTSCHLAND

Manufacturing plant

Jackon Insulation GmbH
Ritzlebener Straße 1
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DEUTSCHLAND

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

EAD 030437-00-0503

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Specific part

1 Technical description of the product

The "Pro One XPS tile boards waterproofing system" is a watertight covering kit based on inherently watertight boards for wet room floors and walls.

The kit consists of the following components:

- Watertight boards "Pro One XPS tile boards" for walls and floors on the basis of extruded polystyrene foam (XPS). The boards are reinforced on both sides with a fiberglass mesh and coated with a special cementitious mortar. They have the following main dimensions:

Length [mm]: 1200 - 2600

Width [mm]: 600 - 1200

Thickness [mm]: 4 - 80

- Sealing collars 120 x 120 mm, 150 x 150 mm, 350 x 350 mm, 400 x 400 mm (without hole) for sealing of pipe penetrations and floor drains.
- "Sealing set 2-k" for sealing the panel joints, penetrations and details consists of two-component mineral sealing slurry, sealing tape and ingoing corners. If necessary, outgoing corners can also be used.
- "BOARD-FIX adhesive and sealing agent" for bonding and sealing of panel joints, penetrations and sealing details.
- Following tile adhesives according to EN 12004¹ for adhering the watertight boards or shower elements onto the substrate as well as adhering the tiles onto the waterproofing:

"Ardex X 77"

"MAPEI Keraflex Maxi S1"

"Saint-Gobain Weber webercol flex"

"MAPEI Ultralite S1"

"PCI Flexmörtel S1"

"VPI Colliflex Premium 2 V 410"

"Schönox Q6"

"Schönox CF Design"

"Sopro's No. 1 schnell Flexkleber No. 1 404"

"Saint-Gobain Weber weber.xerm 852"

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

Annexes A1, A3 and A4 show the system build-up, examples of the watertight boards and shower elements and the other components for sealing of details.

¹ EN 12004:2007+A1:2012 Adhesives for tiles - Requirements, evaluation of conformity, classification and designation

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

The intended use of the watertight covering kit under a wearing surface is to create a floor and wall watertight covering for indoor wet areas at possible operating temperature of 5 °C to 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 covering kit is intended to be used on flexible substrates, e.g., plywood, chipboard, gypsum, anhydrite or similar material vulnerable to water and on rigid substrates, e.g., masonry or concrete.

The product is used in connection with floor drains made of stainless steel or plastics – PE, PP or ABS – with adhesive flange for the collar/sealing layer or with clamping ring and collar.

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

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 and the installation instructions of the manufacturer stated in the technical documents².

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 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	see Annex A2

² The manufacturer's technical documents comprise all information necessary for the production and the installation of the product as well as for repair of the waterproofing made from that and it is deposited with DIBt.

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content, emission and/or release of dangerous substances	see Annex A2
Vapour permeability	see Annex A2
Water tightness	see Annex A2
Crack bridging ability	see Annex A2
Bond strength	see Annex A2
Scratching resistance	see Annex A2
Joint bridging ability	see Annex A2
Impermeability at sealings	see Annex A2
Dimensional stability	see Annex A2
Water tightness around penetration	see Annex A2
Resistance to temperature	see Annex A2
Resistance to mechanical wear	see Annex A2
Resistance to alkalinity	see Annex A2

3.3 Safety and accessibility (BWR 4)

Essential characteristic	Performance
Slipperiness	see Annex A2
Cleanability	see Annex A2
Thickness	see Annex A2

3.4 General aspects

The verification of durability and serviceability is only ensured if the specifications of intended use according to Annex B 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

In accordance with EAD 030437-00-0503, the applicable European legal act is: 2003/665/EC.

The system to be applied is: 2+

In addition, with regard to reaction to fire for products covered by this EAD the system to be applied is: 3

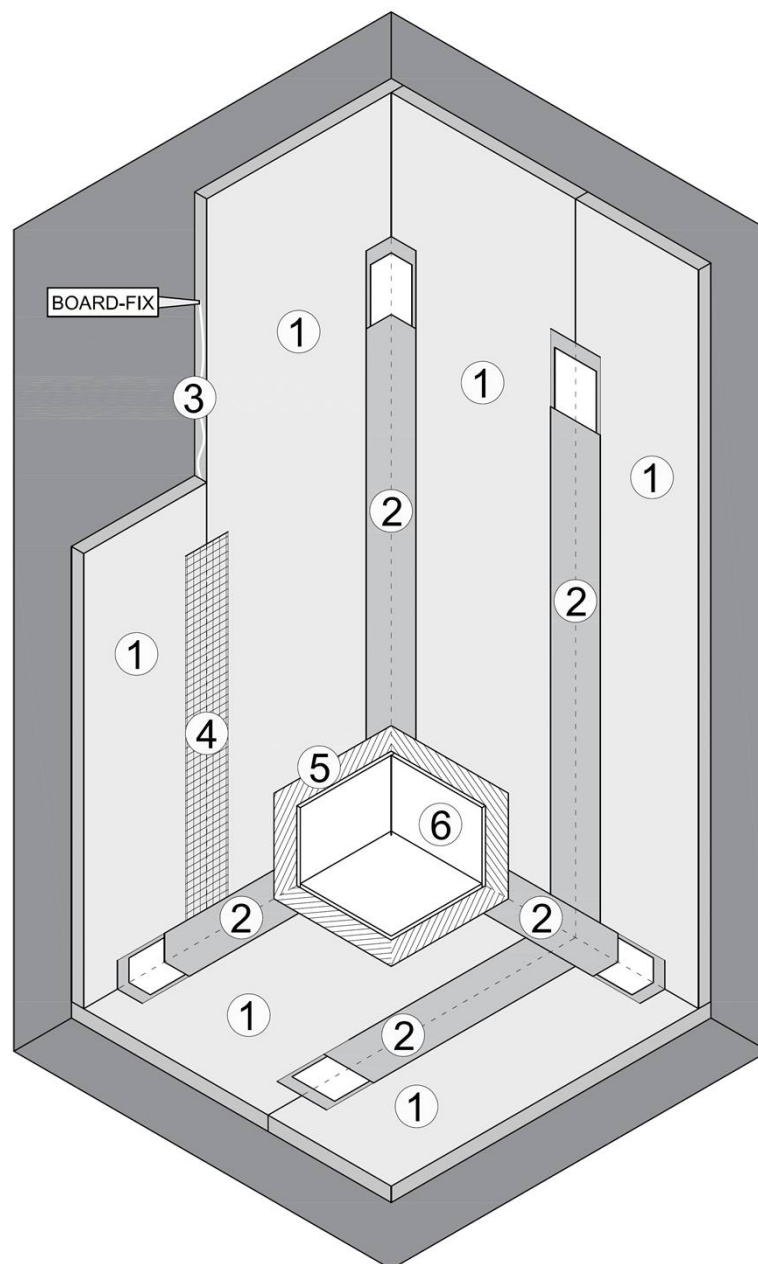
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

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 6 Mai 2024 by Deutsches Institut für Bautechnik

Jürgen Banzer
Head of Section (kommiss.)

beglaubigt:
Hannoun



1. "Pro One XPS tile boards" - Waterproofing Boards
2. "Sealing set 2-k" (mineral sealing slurry, sealing tape and ingoing corners)
3. "BOARD-FIX adhesive and sealing"
4. Glass fibre tape (not part of the waterproofing system)
5. Tile adhesives
6. Wearing layer (tiles)

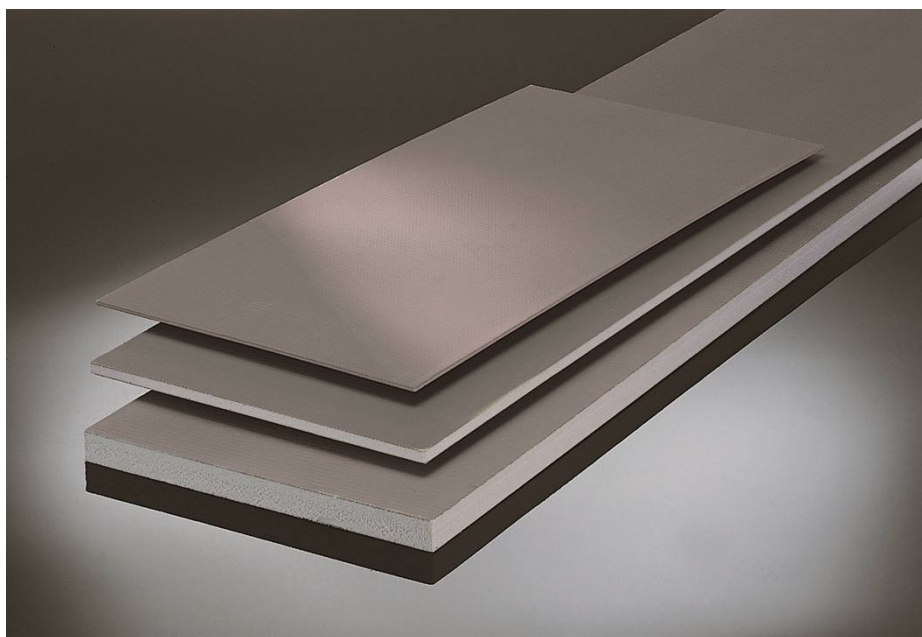
Pro One XPS tile boards waterproofing system

Jackon Insulation GmbH

System build-up

Annex A1

Working life	25 years
Essential characteristic	Performance
Reaction to fire EN 13501-1	Class E
Content, emission and/or release of dangerous substances^{a)}	
Component: Tile adhesive (CE-marked)	According to EN 12004
All other components:	
Substances, classified as Carc. 1A/1B ^{b)}	None of these raw materials are actively used in the manufacture of the construction product ^{c) d)}
Substances, classified as Muta. 1A/1B ^{b)}	
Substances, classified as Acute Tox. 1, 2, 3; Repr. 1A/1B; STOT SE 1 and STOT RE 1 ^{b)}	
SVOC and VOC	
No performance assessed	
Vapour permeability	
d = 4 mm	s _d = 0.43 m
d = 40 mm	s _d = 2.70 m
d = 80 mm	s _d = 5.23 m
Water tightness	Watertight
Crack bridging ability	Category 1: Crack width 0.4 mm
Bond strength using the tile adhesives:	
"ArDEX X 77"; "MAPEI Keraflex Maxi S1"; "Saint-Gobain Weber webercol flex"; "MAPEI Ultralite S1"	Category 2: Bond strength ≥ 0.3 MPa
"PCI Flexmörtel S1"; "VPI Colliflex Premium 2 V 410"; "Schönox Q6"; "Schönox CF Design"; "Sopro's No. 1 schnell Flexkleber No. 1 404"; "Saint-Gobain Weber weber.xerm 852"	Category 3: Bond strength ≥ 0.5 MPa
Scratching resistance	No performance assessed (not relevant)
Joint bridging ability	Can bridge joints (watertight, joint width 2 mm)
Impermeability at sealings	Watertight
Dimensional stability	0.2 % - 0.9 % (all directions)
Water tightness around penetrations (Tests according to Annex A ^{e)} and Annex E ^{f)} of EAD 030352-00-0503)	Watertight (on flexible and rigid substrates)
Resistance to temperature (8 weeks at 50° C)	± 17 % stiffness; (Bond strength ≥ 0.3 MPa)
Resistance to mechanical wear	No performance assessed (not relevant)
Resistance to alkalinity	Category 2: Bond strength ≥ 0.3 MPa
Slipperiness	No performance assessed
Cleanability	No performance assessed (not relevant)
Thickness Watertight boards "Pro One XPS tile boards"	4 - 80 mm
<p>^{a)} Release scenarios regarding BWR 3: IA 2. ^{b)} In accordance with Regulation (EC) No 1272/2008. ^{c)} Active use is the targeted use of substances to achieve specific product properties. Substances that are present as impurities and/or as a secondary component in the product are therefore not to be regarded as "actively used". ^{d)} Assessment based on the detailed manufacturer's statements on dangerous substances. ^{e)} Floor test: Water tightness of whole waterproofing system in end use conditions on flexible substrates (floor), including floor penetrations, drains, board joints and other details. ^{f)} Wall test: Water tightness and resistance to moisture of whole waterproofing system in end use conditions on flexible substrates (wall), including wall penetrations, board joints and other details.</p>	
Pro One XPS tile boards waterproofing system Jackson Insulation GmbH	Annex A2
Performances of the product	



"Pro One XPS tile boards" – watertight board

Pro One XPS tile boards waterproofing system
Jackson Insulation GmbH

Examples of watertight boards

Annex A3



Outgoing corner



"Sealing set 2-k", ingoing corner



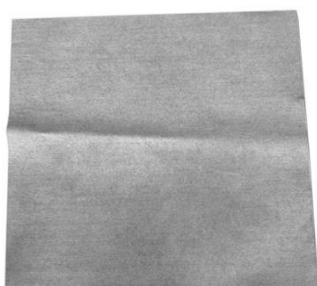
"Sealing set 2-k",
sealing tape



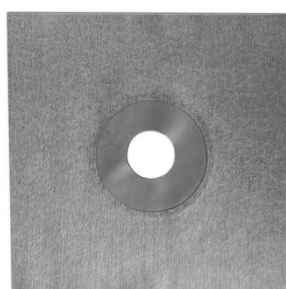
"Sealing set 2-k",
mineral sealing slurry, comp. A
(powder-component)



"Sealing set 2-k",
mineral sealing slurry, comp. B
(liquid component)



Sealing collar



Expansion zone sealing collar



"BOARD-FIX adhesive and
sealing agent"

Pro One XPS tile boards waterproofing system

Jackon Insulation GmbH

Components

Annex A4

Installation

The levels of use categories and the performances 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.

Pro One XPS tile boards waterproofing system Jackson Insulation GmbH	Annex B
Intended use Specifications for the Installation	