

# European Technical Assessment

**ETA 22/0841**

Version 01

Date of issue: 2023-04-24



UBAtc Assessment Operator:  
Belgian Construction Certification Association  
Cantersteen 47 - 1000 Brussels  
www.bcca.be - info@bcca.be



Technical Assessment Body issuing the European Technical Assessment: UBAtc.  
UBAtc has been designated according to Article 29 of Regulation (EU) No 305/2011  
and is member of EOTA (European Organisation for Technical Assessment)

**Trade name of the construction product:**

AQUAPANEEL PRO

**Product family to which the construction product belongs:**

Fire Protective board

**Manufacturer:**

Geberit International AG

Schachenstrasse 77

CH-8645 Jona (Switzerland)

**Manufacturing plant(s):**

Geberit production plant P05

**Website:**

www.geberit.com

**This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:**

European Assessment Document (EAD):  
EAD 350142-00-1106

**This version replaces:**

**This European Technical Assessment contains:**

13 pages, including 2 annexes, which form an integral part of the document.



## European Organisation for Technical Assessment

## Legal bases and general conditions

- 1 This European Technical Assessment is issued by UBAtc (Union belge pour l'Agrément technique de la construction, i.e. Belgian Union for technical Approval in construction), in accordance with:
  - Regulation (EU) No 305/2011<sup>1</sup> of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC
  - Commission Implementing Regulation (EU) No 1062/2013<sup>2</sup> of 30 October 2013 on the format of the European Technical Assessment for construction products
  - European Assessment Document: EAD 350142-00-1106
- 2 Under the provisions of Regulation (EU) No 305/2011, UBAtc is not authorized to check whether the provisions of this European Technical Assessment are met once the ETA has been issued.
- 3 The responsibility for the conformity of the performances of the products with this European Technical Assessment and the suitability of the products for the intended use remains with the holder of the European Technical Assessment.
- 4 Depending on the applicable Assessment and verification of constancy of performance (AVCP) system, (a) notified body(ies) may carry out third-party tasks in the process of assessment and verification of constancy of performance under this Regulation once the European Technical Assessment has been issued.
- 5 This European Technical Assessment allows the manufacturer of the construction product covered by this ETA to draw up a declaration of performance for the construction product.
- 6 CE marking should be affixed to all construction products for which the manufacturer has drawn up a declaration of performance.
- 7 This European Technical Assessment is not to be transferred to other manufacturers, agents of manufacturers, or manufacturing plants other than those indicated on page 1 of this European Technical Assessment.
- 8 The European Technical Assessment holder confirms to guarantee that the product(-s) to which this assessment relates, is/are produced and marketed in accordance with and comply with all applicable legal and regulatory provisions, including, without limitation, national and European legislation on the safety of products and services. The ETA-holder shall notify the UBAtc immediately in writing of any circumstance affecting the aforementioned guarantee. This assessment is issued under the condition that the aforementioned guarantee by the ETA-holder will be continuously observed.
- 9 According to Article 11(6) of Regulation (EU) No 305/2011, when making a construction product available on the market, the manufacturer shall ensure that the product is accompanied by instructions and safety information in a language determined by the Member State concerned which can be easily understood by users. These instructions and safety information should fully correspond with the technical information about the product and its intended use, which the manufacturer has submitted to the responsible Technical Assessment Body for the issuing of the European Technical Assessment.
- 10 Pursuant to Article 11(3) of Regulation (EU) No 305/2011, manufacturers shall adequately take into account changes in the product-type and in the applicable harmonised technical specifications. Therefore, when the contents of the issued European Technical Assessment do not any longer correspond to the product-type, the manufacturer should refrain from using this European Technical Assessment as the basis for their declaration of performance.
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- 13 Subject to the application introduced, this European Technical Assessment is issued in English and may be issued by the UBAtc in its official languages. The translations correspond fully to the English reference version circulated in EOTA.
- 14 This European Technical Approval was first issued by UBAtc on 24 April 2023.

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<sup>1</sup> OJEU, L 88 of 2011/04/04

<sup>2</sup> OJEU, L 289 of 2013/10/31

## Technical Provisions

### 1 Technical description of the product

#### 1.1 General

AQUAPANEEL PRO is fire protective calcium silicate board, composed of a calcium silicate matrix, cement and mineral fillers. The board is off-white in colour and has a smooth upper surface and an embossed or sanded reverse face

AQUAPANEEL PRO is manufactured at Geberit production plant P05 (known at UBAtc).

#### 1.2 Dimensions and density

Dimensions and density of the boards are given in Table 1.

**Table 1: Dimensions and density AQUAPANEEL PRO**

Density (dry 105°C): 870 kg/m <sup>3</sup> ± 15%		
Density (23°C, 50%RH): 940 kg/m <sup>3</sup> ± 15%		
Thickness (mm)	Length x width (mm)	Tolerances on length and width (mm)
18 ± 1,0	2000x600	+3/-3
18 ± 1,0	1300x600	+3/-3
20 ± 1,0	2500x1250	+3/-3

#### 1.3 Ancillary products

Ancillary products referred to in this ETA, as a part of installation provisions or in the framework of determining performances (e.g. fire resistance test), are not covered by this ETA and may not be CE-marked on the basis of it.

## 2 Specification of the intended use(s) in accordance with the applicable EAD

#### 2.1 Intended uses

This ETA covers fire protective AQUAPANEEL PRO intended for:

- Internal use (EAD 350142-00-1106, type Z<sub>2</sub>);
- Internal use high humidity (EAD 350142-00-1106, type Z<sub>1</sub>);
- External use semi-exposed (EAD 350142-00-1106, type Y).

AQUAPANEEL PRO is intended to protect elements or to be used in assemblies as specified in Table 2.

**Table 2: Intended use**

Protection of	EAD 350142-00-1106 reference
Horizontal membrane protection, incl. suspended ceilings acc. to EN 13964	Type 1
Vertical membrane protection	Type 2
Load-bearing concrete elements	Type 3
Load-bearing steel elements	Type 4
Load-bearing flat concrete profiled sheet composite elements	Type 5
Load-bearing concrete filled hollow steel columns	Type 6
Load-bearing timber elements	Type 7
Fire separating assemblies with no load-bearing requirements	Type 8
Technical services assemblies in buildings	Type 9
Uses not covered by types 1-9	Type 10

Table 2 shows the possible intended uses of the boards. Not all of these have been assessed in the framework of this ETA with regard to fire resistance performance. Annex 2 shows a list of the uses for which fire resistance assessment was carried out. This ETA covers assemblies installed in accordance with the provisions given in Annex 2.

With regard to fire resistance performance, the other intended uses may be supported by other means at national level (as specified in the note in paragraph 3.2.2 of this ETA).

The provisions made in this European Technical Assessment are based on an assumed intended working life of 25 years, provided that the assembled product is subject to appropriate use and maintenance, in accordance with this ETA.

Indications given regarding the working life may not be interpreted as a guarantee given by the producer or the UBAtc, but shall be regarded only as a means for choosing the appropriate product(s) in relation to the expected economically reasonable working life of the construction works.

#### 2.2 Assumptions

##### 2.2.1 Manufacturing directives

This European Technical Assessment is issued for AQUAPANEEL PRO on the basis of agreed data/information, deposited with the UBAtc, which identifies the product that has been assessed. Changes to the product/production process, which could result in the deposited data/information being incorrect should be notified to the UBAtc before the changes are introduced.

The raw materials are mixed in water and combined in a slurry. The boards are shaped on a forming drum, cut and stacked for curing. The board is autoclaved under saturated steam pressure and dried. Edges are trimmed and the reverse surface sanded to the desired thickness. Each board is marked in accordance with paragraph 6 of this ETA. AQUAPANEEL PRO boards are examined for visual defects and non-compliant boards are rejected.

## 2.2.2 Installation

### 2.2.2.1 Supporting structure

The distance between supports shall be in accordance with the information provided in the assemblies described in annex 2.

### 2.2.2.2 Cutting and machining

The fire protective AQUAPANEEL PRO shall be cut and machined using conventional woodworking equipment. The use of saw blades with hardened teeth or with tungsten carbide tipped blades is recommended. When machining the fire protective board with power tools, dust extraction shall take place and inhalation of dust should be avoided.

A safety data sheet is available from the manufacturer upon request.

### 2.2.2.3 Joints

The fire protective AQUAPANEEL PRO boards shall be butt jointed.

The boards can have square or bevelled edges. The type of edge shall be in accordance with the assemblies described in annex 2.

Joints in adjacent boards shall be staggered over a minimum distance of 300 mm.

The use and type of joint filler shall be in accordance with the assemblies described in annex 2.

### 2.2.2.4 Mechanical fasteners

Fastening of AQUAPANEEL PRO boards onto the support structure shall be in accordance with the assembly information provided in annex 2.

When applied in more than one layer, the boards, may be attached to each other by staples or equivalent fasteners (screws, nails) without an adverse effect on the mechanical properties of the assembled system.

### 2.2.2.5 Surface treatment

The AQUAPANEEL PRO board surface allows most types of decoration. When applying a surface treatment, the absorption capacity and alkalinity of the boards have to be taken into account.

Assessment of the influence of surface treatment (such as plastering, paints, tiles, wallpaper), on the performance of the AQUAPANEEL PRO boards, has not been performed in the framework of this ETA.

### 2.2.2.6 Assembly

The AQUAPANEEL PRO boards shall be applied as specified in the assemblies in annex 2.

## 2.3 Recommendations

### 2.3.1 Recommendations on packaging, transport and storage

During transport and storage, AQUAPANEEL PRO boards should be stacked on a flat underground and covered. Storage should take place on pallets, in a sheltered and well-ventilated space.

### 2.3.2 Recommendations on use, maintenance and repair

Future modifications to the building should not adversely affect the fire protective properties of the system in which AQUAPANEEL PRO boards are used. Care should be taken to prevent any reduction of fire performance as a result of increased applied load to protected elements of the works (e.g. beams, columns, ceilings, floors, or walls).

The assessment is based on the assumption that damage, for example caused by accidental impact, is repaired. It is further assumed that replacement of components during maintenance/repair will be undertaken using materials specified by the ETA.

## 3 Performance of the product and references to the methods used for its assessment

### 3.1 Mechanical resistance and stability (BWR1)

This basic requirement for construction works is not relevant for AQUAPANEEL PRO boards according to EAD 350142-00-1106.

### 3.2 Safety in case of Fire (BWR2)

#### 3.2.1 Reaction to fire

AQUAPANEEL PRO boards have a reaction to fire classification A1 according to EN 13501-1.

#### 3.2.2 Fire resistance

Assemblies incorporating AQUAPANEEL PRO boards have a resistance to fire classified according to EN 13501-2 as presented in Annex 2.

*NOTE: This ETA covers a limited number of assemblies subjected to fire resistance assessment. As time progresses, the performance declaration for fire resistance covered by CE-marking should gradually be enlarged by the ETA-holder and incorporated in this ETA by amendment or revision. In the meantime, and taking into account the transitional arrangements for test and classification standards and the corresponding national legislation, the ETA-holder should be permitted to maintain and be able to use - on a national basis - his portfolio of test data for this characteristic, based on relevant national standards, next to the performance declaration covered by the CE-marking based on this ETA.*

### 3.3 Hygiene, Health and the environment (BWR3)

#### 3.3.1 Air and/or water permeability

In accordance with EN 12467, the AQUAPANEEL PRO boards are impermeable to water.

#### 3.3.2 Release of dangerous substances

No performance assessed.

### **3.4 Safety in Use (BWR4)**

#### **3.4.1 Flexural strength**

In accordance with EN 12467, the AQUAPANEEL PRO boards have a modulus of rupture (MOR) of  $\geq 4,50$  MPa (95% confidence level).

The AQUAPANEEL PRO boards have sufficient strength to support their own mass. The AQUAPANEEL PRO boards are not intended to support additional loads.

#### **3.4.2 Dimensional stability**

The AQUAPANEEL PRO boards, tested in accordance with EN 318, are dimensionally stable.

#### **3.4.3 Resistance to impact and eccentric load**

No performance assessed.

### **3.5 Energy economy and heat retention (BWR6)**

#### **3.5.1 Thermal conductivity**

No performance assessed.

#### **3.5.2 Water vapour permeability**

No performance assessed.

### **3.6 Protection against noise (BWR5)**

#### **3.6.1 Airborne sound insulation**

No performance assessed.

#### **3.6.2 Sound absorption**

No performance assessed.

#### **3.6.3 Impact sound insulation**

No performance assessed.

### **3.7 Aspects of durability, serviceability and identification**

#### **3.7.1 Durability and serviceability**

##### **3.7.1.1 Resistance to deterioration caused by water**

In accordance with EAD 350142-00-1106, the AQUAPANEEL PRO boards are resistant to water deterioration

##### **3.7.1.2 Resistance to soak/dry**

In accordance with EAD 350142-00-1106, the AQUAPANEEL PRO boards are resistant to soak/dry cycles.

##### **3.7.1.3 Resistance to freeze/thaw**

In accordance with EAD 350142-00-1106, the AQUAPANEEL PRO boards are resistant to freeze-thaw cycles.

### **3.7.1.4 Resistance to heat/rain**

This characteristic is not relevant for the intended use Z<sub>2</sub> (internal use), Z<sub>1</sub> (internal use high humidity), Y (external use semi-exposed).

### **3.7.1.5 Basic durability assessment**

Product performances confirm a working life of 25 years for the intended use Z<sub>2</sub> (internal use), Z<sub>1</sub> (internal use high humidity) and Y (external use semi-exposed).

### **3.7.2 Identification**

#### **3.7.2.1 Product properties**

See §1 of this ETA.

#### **3.7.2.2 Compressive strength**

The compressive strength of the AQUAPANEEL PRO boards, based on assessment testing in accordance with EAD 350142-00-1106 and EN 826, is 9,3 MPa. This value is a guidance value, and does not reflect a statistical evaluation, nor a minimum guaranteed value. This value is not intended to be used as a calculation value as basis for structural design.

#### **3.7.2.3 Tensile strength**

The perpendicular tensile strength of the AQUAPANEEL PRO boards, based on assessment testing in accordance with EAD 350142-00-1106 and EN 1607, is 77,90kPa.

The parallel tensile strength of the AQUAPANEEL PRO boards, based on assessment testing in accordance with EAD 350142-00-1106 and EN 1608, is 989,01 kPa.

These values are guidance values, and do not reflect a statistical evaluation, nor minimum guaranteed values. These values are not intended to be used as calculation values as basis for structural design.

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

In accordance with Regulation (EU) N° 305/2011, Article 65, Directive 89/106/EEC is repealed, but references to the repealed Directive shall be construed as references to the Regulation.

The system of assessment and verification of constancy of performance, specified in the Decision of the Commission 1999/454/EC of 1999/07/14<sup>3</sup>, as amended, is specified in the following Table.

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<sup>3</sup> see OJEU L178/52 of 1999/07/14

**Table 3: System of assessment and verification of constancy of performance applicable to AQUAPANEEL PRO**

Product(s)	Intended use(s)	Level(s) or class(es)	Assessment and verification of constancy of performance
Fire Protective Products	For fire compartmentation and/or fire protection or fire performance	Any	1

\* See Annex V to Regulation (EU) N° 305/2011

In addition, according to the decision 1999/454/EC of 1999/07/14<sup>3</sup> of the European Commission, as amended, the systems of assessment and verification of constancy of performance specified in table 4 apply to fire protective products with regard to reaction to fire.

**Table 4: Systems of assessment and verification of constancy of performance with respect to the reaction to fire**

Product(s)	Intended use(s)	Level(s) or class(es) (reaction to fire)	Assessment and verification of constancy of performance system(s) <sup>a</sup>
Fire Protective Products	For uses subject to regulations on reaction to fire	(A1, A2, B, C)*	1
		(A1, A2, B, C)**, D, E, F	3
		(A1 to F)***, NPD****	4

<sup>a</sup> Systems 1, 3 and 4 : See Regulation (EU) N° 305/2011, Annex V  
<sup>\*</sup> Products/materials for which a clearly identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material)  
<sup>\*\*</sup> Products/materials not covered by footnote (\*)  
<sup>\*\*\*</sup> Products/materials that do not require to be tested for reaction to fire (e.g. products/materials of class A1 according to Commission Decision 96/603/EC<sup>4</sup>, as amended)  
<sup>\*\*\*\*</sup> 'No Performance Declared' in accordance with Regulation (EU) N° 305/2011, Article 6(f)<sup>a</sup> Systems 1 and 2+ :See Regulation (EU) N° 305/2011, Annex V

## 5 Technical details necessary for the implementation of the AVCP system, as foreseen in EAD 350142-00-1106

### 5.1 Tasks for the ETA-holder

#### 5.1.1 Factory production control (FPC)

The ETA-holder shall exercise permanent internal control of the production. All the elements, requirements and provisions adopted by the ETA-holder shall be documented in a systematic manner in the form of written policies and procedures. This factory production control system shall ensure that production is in conformity with this ETA.

The personnel involved in the production process shall be identified, sufficiently qualified and trained to operate and maintain the production equipment. Machinery equipment shall be regularly maintained and this shall be documented. All processes and procedures of production shall be recorded at regular intervals.

The ETA-holder shall maintain a traceable documentation of the production process from purchasing or delivery of raw or basic raw materials up to the storage and delivery of finished products.

The factory production control system for the product includes relevant design specifications, including adequate drawings and written instructions for:

- type and quality of all materials
- overall dimensions
- packaging and transport protection

The production control system shall specify how the control measures are carried out, and at which frequencies.

ETA-holders which have an FPC system that complies with EN ISO 9001 and that addresses the requirements of this ETA are recognised as satisfying the FPC requirements.

Products that do not comply with requirements as specified in the ETA shall be separated from the conforming products and marked as such. The ETA-holder shall register non-compliant production and action(-s) taken to prevent further non-conformities. External complaints shall also be documented, as well as actions taken.

When materials/products are delivered for incorporation into the production process, verification of conformity with specifications in the quality manual shall take place and be recorded.

If supplied materials/components are not manufactured and tested by the supplier in accordance with agreed methods, or where the ETA-holder purchases materials/components on the open market, then where appropriate, they shall be subject to suitable documented checks/tests by the ETA-holder before acceptance.

<sup>4</sup> see OJEU L267 of 1996/10/19



The characteristics of incoming material and components, for which the supplier demonstrates documented compliance with a product specification, for an intended use that is appropriate for its use as a raw material or component of the product, shall be considered satisfactory and need, except in justified doubt, no further checking, unless the control plan specifies differently.

### 5.1.2 Testing of samples taken at the factory

#### 5.1.2.1 General

At least the following minimum information shall be recorded:

- date and time of manufacture
- type of product produced (boards)
- material specification ( dimensions and thickness)
- all results of the verifications performed within the agreed upon control plan

#### 5.1.2.2 Maintenance, checking and calibration of equipment

All testing equipment shall be maintained, calibrated and/or checked against equipment or test specimens traceable to relevant international or nationally recognised reference test specimens (standards). In case no such reference test specimens exist, the basis used for internal checks and calibration shall be documented.

The ETA-holder shall ensure that handling, preservation and storage of test equipment is such that the performances are maintained

When production is intermittent, the ETA-holder shall ensure that any test equipment which may be affected by the interruption is suitably checked and/or calibrated before use. The calibration of all test equipment shall be repeated if any repair or failure occurs which could upset the calibration of the test equipment.

#### 5.1.2.3 Testing as part of Factory Production Control

Table 5 specifies minimum requirements for testing as part of FPC.

If constituent materials or components are supplied by other manufacturers to the ETA-holder, the supplier shall perform FPC on those constituent materials or components. If that is the case, those suppliers should submit the relevant records to the ETA-holder.

**Table 5: FPC test plan for AQUAPANEEL PRO**

Property	Minimum frequency
Determination of organic content (reaction to fire)	1 per week <sup>5</sup>
Determination of dimensional stability at high temperatures (fire resistance)	1 per week
Indirect test method (small oven test) <sup>6</sup>	1 per year
Water impermeability	1 per 3 year
Dimensional stability	1 per year
<b>Identification</b>	
length, width	1 per day <sup>7</sup> , per dimension
thickness	1 per day, per thickness
apparent density	1 sample per n boards
Flexural strength	1 sample per n boards

## 5.2 Initial Type Testing

The assessment tests will have been conducted by the UBAtc or under its responsibility (which may include a proportion conducted by an independent laboratory or by the ETA-applicant, witnessed by the UBAtc). The UBAtc will have assessed the results of these tests in accordance with chapter 3 of this ETA, as part of the ETA issuing procedure.

The results of assessment testing shall be used by notified bodies (cf. Regulation (EU) 305/2011, Annex V, clause 1.6).

## 6 Other marking and/or information

Each board shall at least be marked with product name and a traceability code. Each package is marked with the product name, traceability code, thickness of the boards, and dimensions of the boards.

<sup>5</sup> A week represents 5 production days.

<sup>6</sup> Production shall be subjected to a small oven test (test performed on one thickness).

<sup>7</sup> A day represents a 24h time period in which production is considered to be as usual for the production facility concerned.

UBATc asbl is a non-profit organization according to Belgian law. It is a Technical Assessment Body notified by the Belgian notifying authority, the Federal Public Services Economy, SMEs, Self-Employed and Energy, on 17 July 2013 in the framework of Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC and is member of the European Organisation for Technical Assessment, EOTA ([www.eota.eu](http://www.eota.eu)).

This European Technical Assessment has been issued by UBATc asbl, in Sint-Stevens-Woluwe, on the basis of the technical work carried out by the Assessment Operator, BCCA.

On behalf of UBATc asbl,

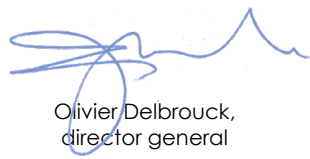
On behalf of the Assessment Operator, BCCA,  
responsible for the technical content of the  
ETA,



Eric Winnepeninckx  
secretary general



Benny De Blaere,  
director



Olivier Delbrouck,  
director general

The most recent version of this European Technical Assessment may be consulted on the UBATc website ([www.butgb-ubatc.be](http://www.butgb-ubatc.be)).



### Annex I: References

**Reference number** EAD 350142-00-1106

**Document title** Fire protective products - Fire protective board, slab and mat products and kits.

**Reference number** EN 13964:2004

**Document title** Suspended ceilings - Requirements and test methods.

**Reference number** EN 13501-1:2002

**Document title** Fire classification of construction products and building elements - Part 1: Classification using test data from reaction to fire tests

**Reference number** EN 13501-2:2003

**Document title** Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services

**Reference number** EN 1364-1:1999

**Document title** Fire resistance tests for non-loadbearing elements - Part 1: Walls

**Reference number** EN 12467:2004

**Document title** Fibre-cement flat sheets - Product specification and test methods

**Reference number** EN 318:2002

**Document title** Wood based panels - Determination of dimensional changes associated with changes in relative humidity

**Reference number** EN 826:1996

**Document title** Thermal insulating products for building applications - Determination of compression behaviour

**Reference number** EN 1607:1996

**Document title** Thermal insulating products for building applications - Determination of tensile strength perpendicular to faces

**Reference number** EN 1608:1996

**Document title** Thermal insulating products for building applications - Determination of tensile strength parallel to faces

**Reference number** EN 14566 (January 2008)

**Document title** Mechanical fasteners for gypsum plasterboard systems – Definitions, requirements and test methods.

**Reference number** EN 14353 (July 2017)

**Document title** Metal beads and feature profiles for use with gypsum plasterboards – Definitions, requirements and test methods

**Reference number** EN 338:2003

**Document title** Structural timber - Strength classes

**Reference number** EN 14195:2005

**Document title** Metal framing components for gypsum plasterboard systems – Definitions, requirements and test methods

**Reference number** EN 13162:2001

**Document title** Thermal insulation products for buildings - Factory made mineral wool (MW) products – Specification

NOTE: The editions of reference documents given above are those, which have been adopted by the UBAtc for its specific use when establishing this ETA. When new editions become available, these supersede the editions mentioned only when confirmed by the UBAtc.

## Annex II : Fire resistance performances and assembly methods for uses of boards covered by this ETA

### A.2.0 Overview of fire resistance performances for AQUAPANEEL PRO assemblies

The fire protective assemblies in Table A.2.0.1 have been assessed within the framework of this ETA. Assemblies installed according to the provisions given in this annex are covered by this ETA.

Table A.2.0.1

Assemblies assessed within the framework of this ETA	Classification according to EN 13501-2	Test Standard	Intended use category according to EAD 350142-00-1106	Installation details	Date of addition to this ETA
Partition, composed of a double layer of AQUAPANEEL PRO fire protective boards (thickness 20 mm) , exposed to fire from both sides	EI 60 E 120	EN1364-1	Type 8	Annex 2.1	2023-04-24

## Annex 2.1 Specification of a partition (intended use type 8), composed of a double layer of AQUAPANEEL PRO fire protective board (thickness 20 mm), exposed to fire from both sides

### A.2.1.1 Date of addition to this ETA

This annex was added ETA 22/0841 on 2023-04-24. This assembly was not covered by this ETA prior to the addition of this annex.

### A.2.1.2 Classification

The assembly described in this annex has been tested according to EN 1364-1 and classified **EI 60 and E 120** in accordance with EN 13501-2.

### A.2.1.3 Installation requirements

Installation requirements in paragraph 2.2.2 of this ETA shall be taken into account.

### A.2.1.4 Supporting structure

The supporting structure consists of galvanized steel L profiles, with minimum dimensions of (25/25/1.5) mm (as shown in the figures in paragraph A.2.1.9). The L profiles are fixed to the existing structure with steel anchors, at maximum 450 mm centres. The L profiles have a maximum length of 1000 mm. They are placed end-to-end with a margin of 4 mm between two consecutive L profiles. Between horizontal and vertical L profiles no margin is provided.

Specifications for the components are given in Table A.2.1.1.

Table A.2.1.1			
Element	Identification	Characteristics	Mounting and fixing
L profiles	Galvanized steel according to EN 14353 or equivalent	Dimensions: $\geq$ (25/25/1.5) mm Length: $\leq$ 1000 mm	Fixed to the existing structure.
Anchors	Steel anchor	$\geq$ M6 ( $\varnothing$ 6 x 73 mm)	Used for fixing of the L profiles at $\leq$ 450 mm centres.

The maximum height of the partition is 4 m.

A sufficient number of expansion joints shall be applied along the width of the partition.

### A.2.1.5 Insulation

Between the existing structure and the L profiles, a mineral wool joint seal, with a minimum thickness of 10 mm and a minimum density of 70 kg/m<sup>3</sup>, is installed. The joint seal is compressed to a thickness of ca 5 mm. The mineral wool joint seal shall be in accordance with EN 13162 and shall have a reaction to fire class A1 and shall have a reaction to fire class A1 according to EN 13501-1. The mineral wool insulation layer is shown in the figures in paragraph A.2.1.9.

Specifications for the linear joint seal are given in Table A.2.1.2.

Table A.2.1.2			
Element	Identification	Characteristics	Mounting and fixing
Joint seal	Mineral wool (A1) according to EN 13162	Thickness: $\geq$ 10 mm compressed to 5 mm Volume mass: 70 kg/m <sup>3</sup>	Installed between the existing structure and the L-profiles.

### A.2.1.6 Fire protective boards

The fire protective boards (thickness 20 mm) are installed in a double layer. The first layer is placed on one side of the L profiles, the second layer on the other side of the L profiles. A layer of Geberit filler for aqua panel Pro (see paragraph A.2.1.7 for characteristics) is provided between the two board layers along the joints, over a distance of 30 mm on both sides of the joint. The boards are fixed to the L profiles with steel screws with minimum dimensions of  $\varnothing$  3.9 x 32 mm, at maximum 300 mm centres and a distance from the board edge of ca 15 mm. The boards are fixed to one another with steel screws with minimum dimensions of  $\varnothing$  4 x 30 mm (maximum length 40 mm), at maximum 300 mm centres and a distance from the board edge of ca 15 mm.

The vertical joints between the boards of the 2 layers are staggered over a distance of 625 mm and the horizontal joints over a minimum distance of 2000 mm.

Specifications for the components are given in Table A.2.1.3.

<b>Table A.2.1.3</b>			
<b>Element</b>	<b>Identification</b>	<b>Characteristics</b>	<b>Mounting and fixing</b>
<b>Boards</b>	Fire protective board AQUAPANEEL PRO	Width: 1250 mm Length: 2500 mm Thickness: 20 mm	Applied in a double layer by gluing and screw fixing with staggered joints (vertical joints $\geq$ 625 mm, horizontal joints $\geq$ 2000 mm).
<b>Screws board/board</b>	Galvanized steel screws according to EN14566 or equivalent	$\geq \varnothing 4 \times 30$ mm and length $\leq 40$ mm	Used for fixing of the boards at $\leq 300$ mm centres. Distance from the edges ca. 15 mm.
<b>Screws board/frame</b>	Galvanized steel screws according to EN14566 or equivalent	$\geq \varnothing 3.9 \times 32$ mm	Used for fixing of the boards at $\leq 300$ mm centres. Distance from the edges ca. 15 mm.

#### **A.2.1.7 Joints**

Geberit filler for aqua panel Pro is provided between the two board layers along the joints (see paragraph A.2.1.5).

All board joints are also filled with Geberit filler for aqua panel Pro. The joints are finished with Geberit filler for aqua panel Pro over a distance of 50 mm on both sides of the joint. The screw heads are also finished with Geberit filler for aqua panel Pro.

Specifications for the linear joint seal are given in Table A.2.1.4.

<b>Table A.2.1.4</b>			
<b>Element</b>	<b>Identification</b>	<b>Characteristics</b>	<b>Mounting and fixing</b>
Glue	Geberit filler for aqua panel Pro	Viscous glue based on sodium silicate with addition of inorganic charges. The glue is grey or off-white in colour and intumesces slightly in case of fire.	Used for joints and screw heads. The glue is applied with a spatula. Joints are completely filled up. The glue is supplied in 1 kg bags.

#### **A.2.1.8 Details**

All installation details shall be executed as presented in the figure A.2.1.9.1.

Figure A.2.1.9.1

