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European Technical Assessment

ETA 17/0965
of 09/03/2018

General Part

Technical Assessment Body issuing the ETA	Technický a zkušební ústav stavební Praha, s.p.
Trade name of the construction product	Internal partition kit ALURA (Hot wand, Chinook, Leste, Hot wall, Solano, Brevia, Garding, Sonata, Aluflam)
Product family to which the construction product belongs	Product area code: 21 Internal partition kits for use as non-loadbearing walls
Manufacturer	Soffio Sp. z o.o. Ul. Zielona 11 43-502 Czechowice-Dziedzice Republic of Poland
Manufacturing plant	Soffio Sp. z o.o. Ul. Słowackiego 33 43-502 Czechowice-Dziedzice Republic of Poland
This European Technical Assessment contains	13 pages including 1 Annex, which form an integral part of this European Technical Assessment
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	ETAG 003, edition April 2012, used as European Assessment Document (EAD)

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1 TECHNICAL DESCRIPTION OF THE PRODUCT

The subject of this European Technical Assessment (ETA) is an internal partition kit manufactured by Soffio Sp. z o.o. named as Internal partition kit ALURA also named Hot wand, Chinook, Leste, Hot wall, Solano, Breva, Garding, Sonata, Aluflam, used as non-loadbearing wall. The kit is designed and installed in accordance with the ETA holder's design and installation instructions, deposited at Technický a zkušební ústav stavební Praha, s.p.

The Internal partition kit ALURA consists of elements and components supplied by suppliers. The ETA holder is ultimately responsible for the complete kit.

The characteristics of the components and of the various simple elements of the Internal partition kit ALURA are specified by the ETA holder as described in point 1.1 of the following pages.

A general example of configuration of the Internal partition kit ALURA is shown below this ETA.

1.1 Characteristics and requirements

1.1.1 Components

The Internal partition kit Alura consists of components stated in table below.

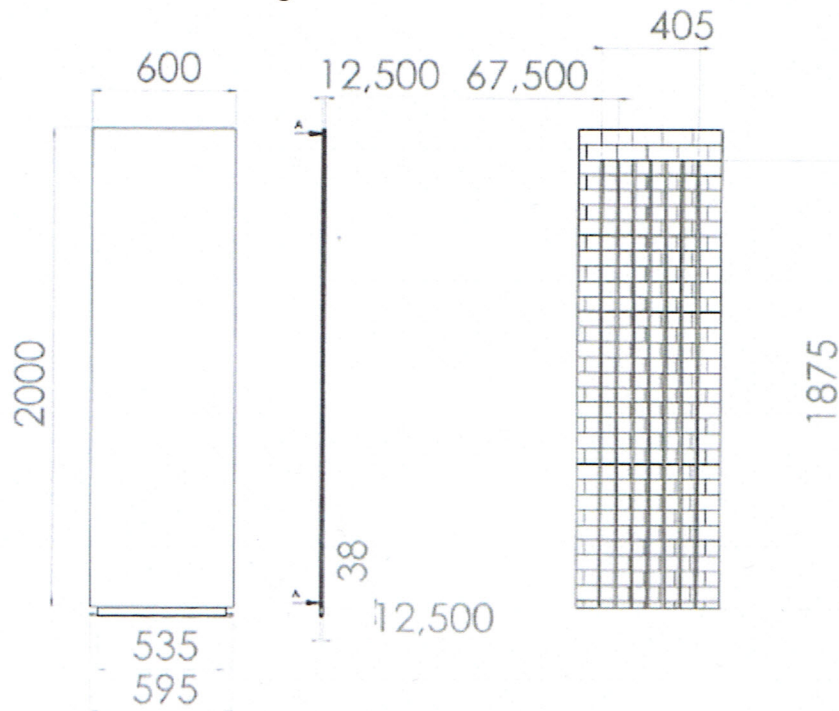
Table 1 Components of Internal partition kit ALURA

No.	Component	Type
1	Steel profile	U (36/50/36/0.5/4000) mm
2	Steel profile	C (47/48.8/48.5/0.5/2600) mm, 4pcs
3	Steel profile	UA (50/40/2/2600) mm, 4 pcs
4	Drywall screw	3.5/25 mm, per every 250 mm
5	Drywall screw	3.5/45 mm, per every 250 mm
6	Plasterboard - doubled	2x12.5/1200/2600 mm
7	ALURA	(600x2040) mm
8	Inside wall insulation	INSULATION EKO BOARD, 50 mm

ALURA

The ALURA manufactured by Soffio Sp. z o.o. is standard gypsum plasterboard combined with heating pipes system. The core of the boards has heating elements made of aluminium pipes placed in milled grooves. Heating elements filled with R 600 cooling agent. Grooves with pipes are filled with gypsum and acrylic compound. From the groove side, the external surface of the panel is covered with a paper – aluminium foil laminate. The ALURA is self-supporting, intended for lightweight partition walls made as frames using metal sections or as studworks, which are used for dry wall construction inside buildings. If the ALURA is to be installed onto a lightweight studwork partition wall, the structure must be covered with a double layer of gypsum board.

Figure 1 ALURA dimensions



The ALURA is based on phase transition in 12.5 mm-thick gypsum plasterboards of 600x2000 mm in size. The bottom edge contains collectors with stub pipes. These are connected with reinforced $\varnothing 16$ mm plastic pipes to form a central heating system. The heat of the water in the system is transferred to heating elements placed in the gypsum plasterboard to heat the board.

The ALURA should be fixed onto a structure of metal sections or a studwork structure, with spacing between the centres of 490-550 mm. The load-bearing structures for ALURA should be constructed of cold-bent sections classified as CW 75 and UW 75 according to the EN 14195:2015 standard. The wooden strips should not be smaller than 50x40 mm (cross-section). If the ALURA is fixed onto a lightweight studwork partition wall, the height of the room should not exceed 3 metres.

When installing the ALURA onto walls made of concrete, reinforced concrete or bricks,

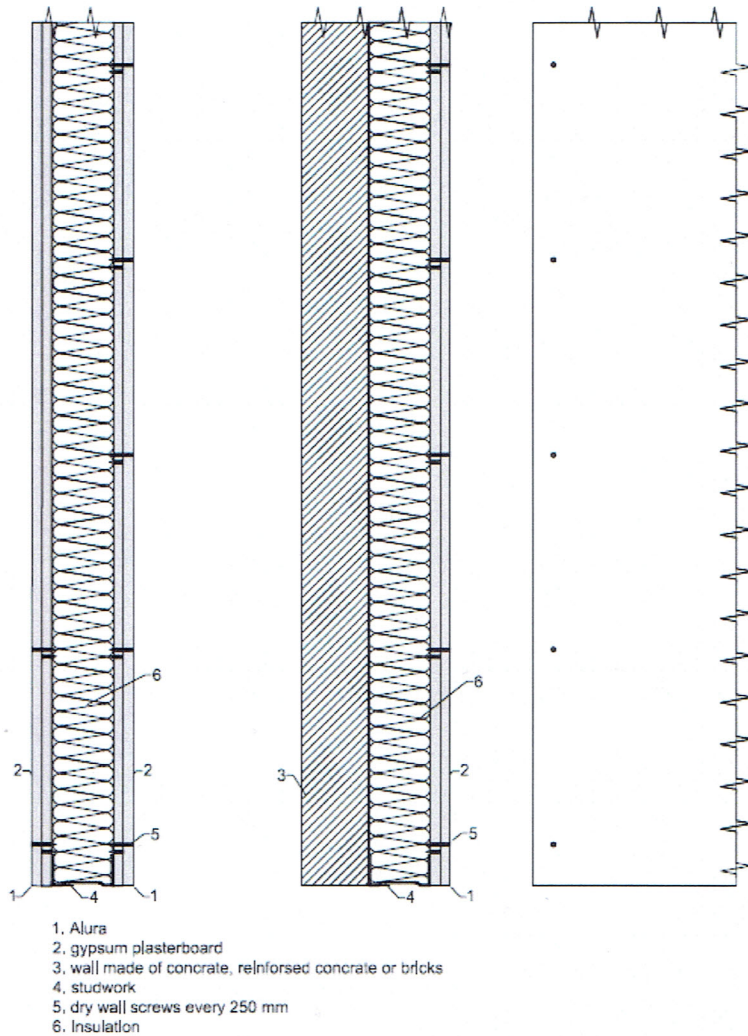
- use a framework structure constructed of metal sections, with a single layer of gypsum boards classified as type A according to the EN 520+A1:2012 standard, 12.5 mm in thickness

The ALURA should be fixed onto the framework structure mechanically, using standard sheet metal screws intended for use with gypsum boards.

When fixed onto the structure, the surface of the ALURA should be coated with a 1-2 mm layer of gypsum plaster that meets the requirements of the EN 13279-1:2009 standard.

The ALURA should be used in accordance with the technical designs for the building in which they are to be used, in compliance with the installation instructions prepared by the manufacturer of the product and provided to customers with each delivery.

Figure 2 Example of connection Internal partition kit ALURA to wall



1.1.2 Shape and dimensions

The acceptable dimensional tolerances are for the Internal partition kit ALURA with nominal length 2600 mm, width 4500 mm and thickness 100 mm as follows:

- $\begin{matrix} 0 \\ -6 \end{matrix}$ mm for the length;
- $\begin{matrix} 0 \\ -3 \end{matrix}$ mm for the width;
- ± 0.6 mm for the thickness.

The dimensional tolerances for the aluminium profiles used in the production of the panel must meet the requirements set out in the EN 12020-2:2017 standard.

2 SPECIFICATION OF THE INTENDED USE(S) IN ACCORDANCE WITH THE APPLICABLE EUROPEAN ASSESSMENT DOCUMENT (HEREINAFTER EAD)

2.1 Intended use

The Internal partition kit Alura is intended for finishing walls made of concrete, reinforced concrete or bricks and for lightweight partition walls made as frames using metal sections or as studwork, for dry wall construction inside buildings.

The Internal partition kit Alura is intended for use in residential premises or public buildings. If the Internal partition kit Alura is to be installed onto a lightweight studwork partition wall, the structure must be covered with a double layer of gypsum board classified as type A according to the EN 520+A1:2012 standard, 12.5 mm in thickness.

These Internal partition kits ALURA, manufactured by Soffio Sp. z o.o., are intended to be used for non-load bearing walls mainly for residential buildings, offices and public buildings, with an air temperature in the range from -40 °C to +50 °C and relative air humidity up to 70 % and for version with gypsum plaster HA13 air relative humidity up to 85 % but for no longer than 10 hours per day.

The provisions made in this European Technical Assessment are based on an assumed minimum working life of 25 years, provided that the internal partition kits are subject to appropriate 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.

2.2 Manufacturing

This European Technical Assessment is issued for internal partition kits produced by the Soffio Sp. z o.o. on the basis of agreed data, deposited with the Technický a zkušební ústav stavební Praha, s.p., which identifies the kit that has been assessed and evaluated. Changes to the kit or production process which could result in this deposited data being incorrect, shall be notified to the Technický a zkušební ústav stavební Praha, s.p., before the changes are introduced. Technický a zkušební ústav stavební Praha, s.p. will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA, and if so, whether further assessment or alterations to the ETA shall be necessary.

2.3 Design and installation

The installation instructions including special installation techniques and provisions for the qualification of the personnel are given in the manufacturer's technical documentation.

Design, installation and execution of Internal partition kits ALURA must conform with national documents. Such documents and the level of their implementation in member states' legislation are different. Therefore, the assessment and declaration of performance are done taking into account the general assumptions included in chapter 7.1 of the ETAG 003 used as EAD, which summarizes how information included in the ETA and related documents are intended to be used in the construction process and gives advice to all parties interested when normative documents are missing.

2.4 Packaging, transport and storage

Information on packaging, transport and storage is given in the manufacturer's technical documentation. It is the responsibility of the manufacturer(s) to ensure that this information is made known to the people concerned.

The Internal partition kit Alura must be stored indoors and protected from the weather, damage and/or breakage.

The Internal partition kit Alura should be transported in such a way as to protect against damage or breakage.

2.5 Use, maintenance and repair

Information on use, maintenance and repair is given in the manufacturer's technical documentation. It is the responsibility of the manufacturer(s) to ensure that this information is made known to the people concerned.

3 PERFORMANCE OF THE PRODUCT AND REFERENCES TO THE METHODS USED FOR ITS ASSESSMENT

The identification tests and the assessment of the intended use of the Internal partition kits ALURA according to the Basic Work Requirements (BWR) were carried out in compliance with ETAG 003. The characteristics of the components shall correspond to the respective values laid down in the technical documentation of this ETA, checked by Technický a zkušební ústav stavební Praha, s.p.

The performance of the kit as described in this chapter is valid provided that the components of the kit comply with the technical descriptions in clause 1.

3.1 Mechanical resistance and stability (BWR 1)

Requirements with respect to the mechanical resistance and stability of non-load bearing parts of the works are not included in this Basic Work Requirement, but are treated under the Basic Work Requirement "Safety in use" (see section 3.4).

3.2 Safety in case of fire (BWR 2)

3.2.1 Reaction to fire

No performance assessed.

3.2.2 Fire resistance

No performance assessed.

3.3 Hygiene, health and the environment (BWR 3)

3.3.1 Release of dangerous substances

No performance assessed.

3.3.2 Water permeability

No performance assessed.

3.3.3 Water vapour permeability

No performance assessed.

3.4 Safety and accessibility in use (BWR 4)

3.4.1 Resistance to horizontal and eccentric load

3.4.1.1 Resistance to structural damage from soft and hard body impact load

The resistance to structural damage from soft and hard body impact load was tested in accordance with clauses 5.4.1.1 and 5.4.1.2 of the ETAG 003 with reference to the following standard: ISO 7892. The classification was carried out through reference to ETAG 003 use categories. The use categories are given in table 2 and used components in table 3.

Table 2 Resistance to structural damage from soft and hard body impact load

Type	Resistance to structural damage from soft body impact load (50 kg bag)	Resistance to structural damage from hard body impact load (1 kg steel ball)
Internal partition kit Alura (length 2600 mm, width 4500 mm, thickness 100 mm)	II (only doubled plasterboard) 200 J IV a (Alura) 400 J	I - IV 10 J

Table 3 Used components for tested Internal partition kit ALURA

No.	Component	Type
1	Steel profile	U (36/50/36/0.5/4000) mm
2	Steel profile	C (47/48.8/48.5/0.5/2600) mm, 4 pcs
3	Steel profile	UA (50/40/2/2600) mm, 4 pcs
4	Drywall screw	3.5/25 mm, per every 250 mm
5	Drywall screw	3.5/45 mm, per every 250 mm
6	Plasterboard - doubled	KNAUF (2x12.5/1200/2600) mm
7	ALURA	(600x2040) mm
8	Heating system connector	JOHN GUEST PMO 412 E
9	Heating system connector	JOHN GUEST 12 MC (1/2)
10	Inside wall insulation	KNAUF INSULATION EKO BOARD, 50 mm

3.4.1.2 Resistance to structural damage from eccentric vertical load

No performance assessed.

3.4.1.3 Resistance to horizontal linear static load

No performance assessed.

3.4.2 Safety against personal injuries by contact

When properly installed, the Internal partition kits ALURA manufactured by Soffio Sp. z o.o. do not contain any sharp or cutting edges which may cause the risk of abrasion, injury to people or damage to clothing.

3.5 Protection against noise (BWR 5)

3.5.1 Airborne sound insulation

No performance assessed.

3.5.2 Sound absorption

No performance assessed.

3.6 Energy economy and heat retention (BWR 6)

3.6.1 Thermal resistance

No performance assessed.

3.6.2 Thermal inertia

No performance assessed.

3.7 Sustainable use of natural resources (BWR 7)

No performance assessed.

3.8 Aspects of durability and serviceability

3.8.1 Robustness and rigidity

3.8.1.1 Resistance to functional failure from soft and hard body impact load

The resistance to functional failure from soft and hard body impact load was tested in accordance with clauses 5.7.1.1 and 5.7.1.2 of the ETAG 003 with reference to the following standard: ISO 7892. The classification was carried out through reference to ETAG 003 use categories. The use categories are given in table 4 and used components in table 5.

Table 4 Resistance to functional failure from soft and hard body impact load

Type	Resistance to functional failure from soft body impact load (50 kg bag)	Resistance to functional failure from hard body impact load (0.5 kg steel ball)
Internal partition kit Alura (length 2600 mm, width 4500 mm, thickness 100 mm)	IV (only doubled plasterboard) 120 J IV (Alura) 120 J	I - IV 10 J

Table 5 Used components for tested Internal partition kit ALURA

No.	Component	Type
1	Steel profile	U (36/50/36/0.5/4000) mm
2	Steel profile	C (47/48.8/48.5/0.5/2600) mm, 4pcs
3	Steel profile	UA (50/40/2/2600) mm, 4 pcs
4	Drywall screw	3.5/25 mm, per every 250 mm
5	Drywall screw	3.5/45 mm, per every 250 mm
6	Plasterboard - doubled	KNAUF (2x12.5/1200/2600) mm
7	ALURA	(600x2040) mm
8	Heating system connector	JOHN GUEST PMO 412 E
9	Heating system connector	JOHN GUEST 12 MC (1/2)
10	Inside wall insulation	KNAUF INSULATION EKO BOARD, 50 mm

3.8.1.2 Resistance to functional failure from vertical load

No performance assessed.

3.8.1.3 Resistance to functional failure from point load parallel or perpendicular to surface

No performance assessed.

3.8.1.4 Rigidity of partitions to be used as a substrate for ceramic tiling

No performance assessed.

3.8.2 Resistance to deterioration

3.8.2.1 Physical agents

No performance assessed.

3.8.2.2 Chemical agents

No performance assessed.

3.8.2.3 Biological agents

No performance assessed.

4 ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE (HEREINAFTER AVCP) SYSTEM APPLIED, WITH REFERENCE TO ITS LEGAL BASE

According to the decision 1998/213/EC¹, of the European Commission amended by decision 2001/596/EC, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) given in the following table applies:

Table 6 The AVCP System

Product(s)	Intended use(s)	Level(s) or class(es)	System(s)
Internal partition kits	For uses subject to reaction to fire requirements	A1*, A2*, B*, C*	1
		A1**, A2**, B**, C** D, E	3
		A1*** to E***, F	4
	For fire compartmentation	any	3
	For uses subject to regulations on dangerous substances	---	3
	For uses liable to present "safety-in-use" risks and subject to such regulations	---	3
	For uses other than those mentioned in the above	---	4

* Products/materials for which a clearly identified stage in the production, results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material)

** Products/materials not covered by footnote *

*** Products/materials of class A1 that according to Decision 96/603/EC, amended by EC Decision 200/605/EC do not require to be tested for reaction to fire

The systems 1, 3 and 4 referred to above are described in Construction Products Regulation (EU) No. 305/2011, Annex V, clauses 1.2., 1.4 and 1.5.

¹ 1998/213/EC – European Commission decision on date 09/03/1998, published in the Official Journal of the European Union (OJEU) L 80/41

5 TECHNICAL DETAILS NECESSARY FOR THE IMPLEMENTATION OF THE AVCP SYSTEM, AS PROVIDED FOR IN THE APPLICABLE EAD

In order to assist the Notified Body making an evaluation of conformity, the Technical Assessment Body issuing the ETA shall supply the information detailed below. This information, together with the requirements given in EC Guidance Paper B will generally form the basis on which the factory production control (FPC) is assessed by the Notified Body.

This information shall initially be prepared or collected by the Technical Assessment Body and shall be agreed upon with the manufacturer. The following gives guidance on the type of information required:

- The ETA
Where confidentiality of information is required, this ETA makes reference to the manufacturer's technical documentation which contains such information.
- Basic manufacturing process
The basic manufacturing process is described in sufficient detail to support the proposed FPC methods.
The different components of the Internal partition kit ALURA are generally manufactured using conventional techniques. Any critical process or treatment of the components which affects performance is highlighted in the manufacturer's documentation.
- Product and materials specification
The manufacturer's documentation includes:
 - detailed drawings (possibly including manufacturing tolerances)
 - incoming materials specifications and declarations
 - references to European and/or international standards
 - technical data sheets
- Control plan (as part of FPC)
The manufacturer and Technický a zkušební ústav stavební Praha, s.p. have agreed a control plan which is deposited with Technický a zkušební ústav stavební Praha, s.p. in the documentation which accompanies the ETA. The control plan specifies the type and frequency of checks/tests conducted during production and on the final product. This includes checks conducted during manufacture of properties that cannot be inspected at a later stage and for checks on the final product.

Products not manufactured by the Internal partition kits ALURA manufacturer shall also be tested according to the control plan. It must be demonstrated to the Notified Body that the FPC system contains elements ensuring that the Internal partition kit ALURA manufacturer purchases products conforming to the control plan from his supplier(s).

Where materials/components are not manufactured and tested by the supplier in accordance with agreed methods, then where appropriate they shall be subject to suitable checks/tests by the internal partition kit manufacturer before acceptance.

In cases where the provisions of the European Technical Assessment and its control plan are no longer fulfilled, the Notified Body shall withdraw the certificate and inform Technický a zkušební ústav stavební Praha, s.p. without delay.

Issued in Prague on 09/03/2018



By

Mária Schaan
Head of the TAB

A handwritten signature in blue ink, appearing to be "Mária Schaan".

Annexes:

Annex 1 Reference documents

REFERENCE DOCUMENTS	ANNEX 1 ETA 17/0965
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- [1] ETAG 003 Guideline for ETA for Internal partition kits for use as non-loadbearing walls (edition December 1998, amended April 2012)
- [2] Test Report No. 060-045220 dated 20.6.2017, regarding tests of resistance to structural damage and functional failure issued by Technický a zkušební ústav stavební Praha, s.p., Brno branch, Czech Republic