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European technical approval

ETA-13/0693

(English language translation, the original version is in German language)

Handelsbezeichnung Trade name CereWall

Zulassungsinhaber Holder of approval Henkel AG & Co. KGaA Henkelstraße 67 40589 Düsseldorf GERMANY

Zulassungsgegenstand und Verwendungszweck

Bausatz für innere Trennwände zur Verwendung als nichttragende Wände

Generic type and use of construction product

Internal partition kit for use as non-loadbearing walls

Geltungsdauer vom Validity from bis to

28.06.2013

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27.06.2018

Herstellwerk *Manufacturing plant*

Henkel AG & Co. KGaA Henkelstraße 67 40589 Düsseldorf GERMANY

Diese Europäische technische Zulassung umfasst This European technical approval contains

11 Seiten inklusive 0 Anhänge

11 pages including 0 Annexes



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LEGAL BASES AND GENERAL CONDITIONS

This European technical approval is issued by the Österreichisches Institut für Bautechnik in accordance with:

- Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products¹, modified by the Council Directive 93/68/EEC of 22 July 1993²;
- Wiener Bauprodukte- und Akkreditierungsgesetz WBAG. LGBl. Nr. 30/1996, zuletzt geändert durch das Gesetz LGBl. für Wien Nr. 8/2012;
- Common Procedural Rules for Requesting, Preparing and the Granting of European technical approvals set out in the Annex of Commission Decision 94/23/EC³;
- Guideline for European technical approval of "internal partition kits for use as non-loadbearing walls" ETAG no. 003, edition December 1998.
- The Österreichisches Institut für Bautechnik is authorized to check whether the provisions of this European technical approval are met. Checking may take place in the manufacturing plant. Nevertheless, the responsibility for the conformity of the products to the European technical approval and for their fitness for the intended use remains with the holder of the European technical approval.
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¹ Official Journal of the European Communities N° L 40, 11.02.1989, p. 12

Official Journal of the European Communities N° L 220, 30.08.1993, p. 1

Official Journal of the European Communities N° L 17, 20.01.1994, p. 34



II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of products and intended use

1.1 Definition of products

This European technical approval applies to the internal partition kit "CereWall" which is designed and installed in accordance with the ETA-holder's design and installation instructions deposited at Österreichisches Institut für Bautechnik.

The "CereWall" kit consists of autoclaved aerated concrete blocks and 1-component polyurethane adhesive as well as ancillary components which are produced by other manufacturers complying with the specifications of the ETA-holder, who is ultimately responsible for the kit with the following main components.

Autoclaved aerated concrete blocks

The autoclaved aerated concrete blocks with a minimum compressive strength of 2,5 N/mm² and a minimum gross bulk density of 475 kg/m³ have to be in accordance with EN 771-4.

The autoclaved aerated concrete blocks for the internal partition kit can be plain or provided with tongue and groove joints.

The dimensions of the blocks are given in clause 2.2 of the ETA.

Adhesive

1-component polyurethane adhesive with a nominal density (cured adhesive, expanded) of 20 kg/m³ and minimum shear strength (dry storage 24 hours) of 0,15 N/mm² according to EN 998-2:2003 which is available under different trade names.

The internal partition kit with a minimum thickness of 75 mm is assembled on site using the 1-component polyurethane adhesive and ancillary components according to the ETA-holder's installation instructions.

The walls can be rendered according to the ETA-holder's installation instructions.

1.2 Intended use

The internal partition kit "CereWall" may be used as an immoveable non-loadbearing separating wall with:

- > reaction to fire properties (see clause 2.3 of the ETA)
- > fire separating capabilities (see clause 2.4 of the ETA) and
- > mechanical resistance and stability (see clause 2.7 of the ETA) as well as robustness and rigidity properties (see clause 2.13 of the ETA):
- 1. for zones accessible primarily to those with high incentive to exercise care and therefore small risk of accidents occurring and misuse exists:
 - use category I according to ETAG 003 (see clause 2.7 and 2.13 of the ETA) for non-loadbearing separating walls made of autoclaved aerated concrete blocks with a thickness of 75 mm to < 100 mm
- 2. for zones accessible to public or even persons with little incentive to exercise care and therefore the risk of accidents occurring and misuse exists. Further the internal partition kit may be used in zones where in case of failure the risk includes a fall at a lower level:
 - use category IV according to ETAG 003 (see clause 2.7 and 2.13 of the ETA) for non-loadbearing separating walls made of autoclaved aerated concrete blocks with a thickness of minimum 100 mm

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The internal partition kit may also be used as lining for an external wall.

These intended uses are applicable under the following conditions:

- > structures capable of giving adequate support and adequate possibilities for fixing the internal partition exist
- > the average air temperature of the adjacent spaces is in the range from 5 °C to 35 °C with a minimum of 0 °C and a maximum of 50 °C
- > the average daily humidity range is between 20 % RH and 75 % RH and the maximum relative humidity only exceeds 85 % RH for a short periods of time

The provisions made in this European technical approval are based on an assumed intended working life of the non-loadbearing wall of at least 25 years.

The indications given on the working life cannot be interpreted as a guarantee given by the producer or the Approval 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 Characteristics of the product and method of verification

2.1 General

The identification tests and the assessment of the fitness of use of the internal partition kit "CereWall" in relation to the requirements for

- > Safety in case of fire (ER2)
- > Hygiene, Health and the Environment (ER3)
- > Safety in use (ER4)

have been made in accordance with ETAG 003, edition December 1998. The internal partition kit shall as far as its composition and manufacturing process is concerned correspond to the product subject to the approval tests. Details of composition and manufacturing process are deposited at Österreichisches Institut für Bautechnik.

Changes to the production process of the components of the kit which could result in deposited information/data being incorrect, shall be notified to the Österreichisches Institut für Bautechnik before they are introduced and the Österreichisches Institut für Bautechnik will assess whether or not such changes affect the ETA and, if so, whether further assessment and/or alteration to the ETA shall be necessary⁴.

The characteristics of the components and of the system not mentioned in this ETA nor in the Annexes of the ETA shall correspond to the respective values laid down in the Technical Documentation of this ETA, checked by Österreichisches Institut für Bautechnik.

The ETA-holder may change, under his own responsibility, some of the suppliers of a component, but only provided that the characteristics and the performances of the new components and the final performances of the system do not change at all. These changes must be fully recorded within the Factory Production Control documents in order to grant full traceability.



Characteristics of the components

2.2 Autoclaved aerated concrete blocks

For identification of the component the following applies.

Characteristics	Test method	For internal partitions with resistance to fire classification NPD	Tolerance
Length	EN 772-16	≤ 1500 mm	+/- 1,5 mm
Width	EN 772-16	≥ 75 mm (nominal value)	+/- 1,5 mm
Height	EN 772-16	≤ 1000 mm	+/- 1,0 mm
Flatness	EN 772-20		≤ 1,0 mm
Parallelism	EN 772-16		≤ 1,0 mm
Gross dry bulk density	EN 772-13	475 kg/m³ to 1000 kg/m³	+/- 50 kg/m ³
Compressive strength	EN 772-1	≥ 2,5 N/mm² (mean value)	≥ 2,0 N/mm² (single value)

Characteristics	Test method	For internal partitions with resistance to fire classification El 90	Tolerance
Length	EN 772-16	200 mm to 1000 mm	+/- 1,5 mm
Width	EN 772-16	≥ 100 mm (nominal value)	+/- 1,5 mm
Height	EN 772-16	200 mm to 400 mm	+/- 1,0 mm
Flatness	EN 772-20		≤ 1,0 mm
Parallelism	EN 772-16		≤ 1,0 mm
Gross dry bulk density	EN 772-13	475 kg/m³ to 1000 kg/m³	+/- 50 kg/m ³
Compressive strength	EN 772-1	≥ 2,5 N/mm² (mean value)	≥ 2,0 N/mm² (single value)

2.3 Adhesive

For identification of the component the following applies.

Characteristics	Test method	1-component polyurethane adhesive	Tolerance
Density of cured adhesive (expanded)	EN ISO 845:2009	20 kg/m³	+/- 3,0 kg/m³
Shear strength (dry storage 24 hours)	EN 1052-3:2002	≥ 0,15 N/mm ² according to EN 998-2:2003	

Characteristics of the internal partition

2.4 Reaction to fire

The reaction to fire of the components of the non-loadbearing wall made from the internal partition kit "**CereWall**" was assessed in accordance with clause 5.2.1 of ETAG 003, edition 1998 and classified according to EN 13501-1:

Component	Class according to EN 13501-1		
1-component polyurethane adhesive	E (for gap width ≤ 10 mm)		
Autoclaved aerated concrete blocks	A1 (according to Commission Decision 96/603/EC ⁵)		

⁵ Official Journal of the European Communities no. L 267, 19.10.1996, p. 23





2.5 Resistance to fire

The resistance to fire of the non-loadbearing wall made from the internal partition kit "CereWall", tested in accordance with clause 5.2.2 of ETAG 003, edition 1998, with reference to EN 1363-1:2012 and EN 1364-1:1999, can be classified, according to EN 13501-2:2007+A1:2009

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under the following conditions:

Not rendered internal partition			Optional rendering	
Height	Width	Thickness	Density of the autoclaved aerated concrete blocks 475 kg/m³ to 1000 kg/m³	Class A1 according to
≤ 4,0 m	∞	≥ 100 mm		EN 13501-1

For internal partitions with thickness < 100 mm no performance was determined and therefore the fire resistance classification is NPD.

2.6 Release of dangerous substances

The 1-component polyurethane adhesive does contain the following dangerous substances specified in EOTA TR 034 (General ER 3 Checklist for ETAGs/CUAPs/ETAs- Content and/or release of dangerous substances in products/kits), edition March 2012:

- Dimethyldiphenyldiisocyanat (CAS 9016-87-9)
- > Trichlorisopropylphosphat (CAS 237-158-7)
- Isobutane (CAS 75-28-5) >
- Propane (CAS 74-98-6)
- Dimethylether (CAS 115-10-6)

The cured 1-component polyurethane adhesive as part of the internal partition kit "CereWall" does not release any of the above mentioned dangerous substances to the ambient air. The intended use category according to EOTA TR 034, edition March 2012 is IA2.

A written declaration of conformity in this respect was submitted by the ETA-holder.

In addition to the specific clauses relating to dangerous substances contained in this ETA, 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 Directive, these requirements need also to be complied with, when and where they apply.

2.7 Water vapour permeability

No performance determined (NPD).



2.8 Resistance to structural damage

The resistance to dynamic loads of the internal partition kit "CereWall" was assessed in accordance with clause 5.4.1 of ETAG 003, edition 1998, with reference to the following standards: ISO 7892:1988, ISO/DIS 7893.2:1991 and ISO/DIS 8413:1990. The classification was carried out through reference to ETAG 003, edition 1998 use categories.

Resistance to dynamic loads	resistance to resistance to		
	structural damage structural damag		
	from soft body	from hard body	
	impact load	impact load	
	 50 kg bag 	– 1 kg steel ball	
non-loadbearing wall made of 75 mm thick	II	II	
autoclaved aerated concrete blocks	1 x 200 Nm	1 x 10 Nm	
non-loadbearing wall made of 100 mm thick	IV b	IV b	
autoclaved aerated concrete blocks	1 x 500 Nm	1 x 10 Nm	
Resistance to eccentric vertical loads	resistance to structural damage from		
	eccentric vertical loads – 24 hour load		
non-loadbearing wall made of 75 mm thick	а		
autoclayed aerated concrete blocks	1000 N		
autociaved aerated concrete blocks	(screwed through fixing)		
non loadboaring wall made of 100 mm thick	b		
non-loadbearing wall made of 100 mm thick autoclaved aerated concrete blocks	4000 N		
autociaved aerated concrete blocks	(screwed through fixing)		

2.9 Safety against personal injury by contact

When properly installed the internal partition kit "CereWall" does not contain any sharp and cutting edges which cause the risk of abrasion or cutting people or people's clothing.

2.10 Airborne sound insulation

No performance determined (NPD).

2.11 Sound absorption

No performance determined (NPD).

2.12 Thermal resistance

No performance determined (NPD).

2.13 Thermal inertia

No performance determined (NPD).



Aspects of durability and serviceability

2.14 Resistance to functional failure

The resistance to dynamic loads of the internal partition kit "CereWall" was assessed in accordance with clause 5.7.1 of ETAG 003, edition 1998, with reference to the following standards: ISO 7892:1988, ISO/DIS 7893.2:1991 and ISO/DIS 8413:1990. The classification was carried out through reference to ETAG 003, edition 1998 use categories.

registance to	resistance to	
	functional failure	
	from hard body	
•	impact load – 0,5 kg steel ball	
= 50 kg bag	- 0,5 kg steel ball	
1 2 × 60 Nm	I 1 v C Nm	
	1 x 6 Nm	
	IV	
	1 x 6 Nm	
resistance to functional failure from		
eccentric vertical loa	ds – short-term load	
а		
500 N		
а		
500 N		
	resistance to	
	functional failure	
	from point loads	
 10 kg perpendicular 	25 kg parallel	
NPD	NPD	
	111 D	
NPD	NPD	
	deflection after	
•	impact soft body	
impact load	impact load	
50 kg bag	50 kg bag	
NDD	NPD	
NFD	INFU	
NDD	NPD	
NFD	INFU	
max residual deflection ≤ 5 mm		
no dan	00000	
	eccentric vertical load a 500 resistance to functional failure from point loads 10 kg perpendicular NPD NPD deflection after impact soft body impact load 50 kg bag NPD NPD NPD NPD NPD NPD	

2.15 Resistance to deterioration caused by physical agents

Acceptable without specific tests.

2.16 Resistance to deterioration caused by chemical agents

Acceptable without specific tests.

2.17 Resistance to deterioration caused by biological agents

Acceptable without specific tests.



3 Evaluation of conformity and CE marking

3.1 Attestation of conformity system

The attestation of conformity applied to this product is given by the European Commission in mandate Construct 97/243 REV.1, Annex 3 and specified in EC decision 98/213/EC, revised by EC decision 2001/596/EC.

For all product properties except for reaction to fire of autoclaved aerated concrete blocks system 3 shall apply.

The system of attestation of conformity 3 is described in Council Directive 89/106/EEC Annex III, 2 (ii), Second possibility and is detailed as follows:

- a) Tasks of the manufacturer
 - factory production control
- b) Tasks of the approved body
 - initial type-testing of the product

For reaction to fire of autoclaved aerated concrete blocks system 4 shall apply.

The system of attestation of conformity 4 is described in Council Directive 89/106/EEC Annex III, 2 (ii), Third possibility and is detailed as follows:

- a) Tasks of the manufacturer
 - factory production control
 - initial type-testing of the product

3.2 Responsibilities

3.2.1 Tasks for the manufacturer

3.2.1.1 Factory production control

The manufacturer has a factory production control system in his plant and exercises permanent internal control of production.

All the elements, requirements and provisions adopted by the manufacturer are documented in a systematic manner in the form of written policies and procedures. The factory production control system ensured that the products are always in conformity with the European technical approval.

In the framework of factory production control the manufacturer shall carry out tests and controls in accordance with the control plan⁶ which is fixed with this European technical approval.

Details of the extent, nature and frequency of testing and controls to be performed within the factory production control shall correspond to this control plan which is part of the technical documentation of this European technical approval.

The results of factory production control are recorded and evaluated. The records include at least the following information:

- designation of the products and of the basic materials
- type of control or testing
- date of manufacture of the products and date of testing of the products or basic materials or components
- result of control and testing and, if appropriate, comparison with requirements
- signature of person responsible for factory production control

The control plan has been deposited at the Österreichisches Institut für Bautechnik and is handed over only to the approved bodies involved in the attestation of conformity procedure



3.2.2 Tasks for the approved bodies

3.2.2.1 Initial type-testing of the products

For initial type-testing the results of the tests performed as part of the assessment for the European technical approval shall be used unless there are changes in the production line or plant. In such cases the necessary initial type-testing has to be agreed between the Österreichisches Institut für Bautechnik and the approved bodies involved.

On request the records shall be presented to the Österreichisches Institut für Bautechnik.

3.3 CE Marking

The CE marking shall be affixed on the internal partition kit/components itself/themselves, an attached label, the packaging, or the accompanying commercial documents. The symbol "CE" shall be accompanied by the following information:

- > the name or identifying mark and address of the ETA-holder
- > the last two digits of the year in which the CE marking was affixed
- > number of the ETAG (ETAG N° 003)
- > number of the European technical approval
- > the designation of the internal partition kit (trade name)
- > the resistance to fire class according to clause 2.5 of the ETA
- > the use category according to clause 1.2 of the ETA

4 Assumptions under which the fitness of the product for the intended use was favourably assessed

4.1 Manufacturing

The "CereWall" components shall correspond, as far as their composition and manufacturing process is concerned, to the products subject to the approval tests.

4.2 Installation

4.2.1 General

It is the responsibility of the ETA-holder to guarantee that the information about design and installation of the kit "CereWall" are effectively communicated to the concerned people. Besides, all the data concerning the execution shall be indicated clearly on the packaging and/or on the enclosed instruction sheets using one or several illustrations.

In any case, it is suitable to comply with national regulations and particularly concerning fire.

Only the components described in clause 1.1 with characteristics in accordance with clause 2 of this ETA can be used for the kit "CereWall". The requirements given in ETAG 003, edition 1998, clause 7, have to be considered.

4.2.2 Design

The internal partition kit design shall comply with characteristics of the kit "**CereWall**" as well as the national regulations. The kit has to be installed into indoor spaces with normal indoor temperature and moisture conditions (see clause 1 of the ETA).



4.2.3 Installation

The recognition and preparation of floor, ceiling and walls in a work, as well as the installation of the internal partition kit "CereWall" with respect to the peculiarities in joints between partition and main structure and admitted tolerances of the system itself, which are fully described in the current version of the ETA-holder's installation manual, shall be carried out in compliance with:

- clause 7 of the ETAG 003, edition 1998
- national regulations in force, if any

For connection joints between partition and the main structure, the 1-component polyurethane adhesive – as tested – or a technically equal grout that is appropriate for the intended use can be used.

5 Recommendations

5.1 Packaging, transport and storage

Packaging, transport and storage of the components and the ancillary materials have to be such that the products are protected from moisture during transport and storage.

The components have to be protected against damage and well identified as part of the internal partition kit "CereWall".

5.2 Maintenance and repair of the product

Except for aesthetic reasons no special maintenance is required. Damages however should principally be repaired, if might occur. In general the partition wall can be easily repaired using the components of the internal partition kit as described in clause 1.1 of the ETA.

On behalf of Österreichisches Institut für Bautechnik

The original document is signed by:

Rainer Mikulits Managing Director