BUtgb vzw - UBAtc asbl

MAIN WORKS – MASONRY AND RELATED PRODUCTS

INNOVATIVE MASONRY UNIT

HEMP CONCRETE UNIT

ISOHEMP

Valid from 06/02/2026 to 05/02/2031

Approval holder:

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ATG 3169 UBAtc BUtgb

A technical approval is a favourable assessment of a construction product by a competent, independent and impartial approval operator appointed by the UBAtc, for a specified intended use.

The technical approval documents the results of the approval examination. This examination is organised as follows:

- identification of the relevant product properties taking into account its intended use and method of installation (or execution),
- product conception,
- production reliability.

The technical approval provides a high level of reliability, due to the statistical interpretation of control results, recurrent monitoring, adjustments in order to keep abreast of the latest technical developments and quality control by the approval holder.

For technical approval to be maintained, the approval holder must continuously provide evidence that he is taking all necessary steps to demonstrate that the product is fit for the intended use. In this respect, monitoring the conformity of the product with the technical approval is essential. This monitoring is entrusted by the UBAtc to a competent, independent and impartial certification operator.

The technical approval and certification of conformity of the product with the technical approval are independent of individual construction works. The contractor and/or architect remain fully responsible for the conformity of the completed works with the provisions contained in works' specifications.

Apart from specifically introduced provisions, the technical approval does not cover site related safety provisions, health aspects and the sustainable use of raw materials. As a result, the UBAtc cannot be held responsible, under any circumstances, for any damage caused by the failure of the approval holder, contractor(s) and/or architect to respect provisions relating to site related safety, health aspects and the sustainable use of raw materials.

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FOREWORD

This document concerns a modification of the technical approval text ATG 3169, valid from 2/09/2024 until 01/09/2029. The modifications in comparison with the previous version are the followings:

Modifications in comparison with the previous version
– Modification of the components and other materials. – Modification of the gross dry density and the thermal conductivity for unit B07 and of the height for unit B30 (Table 1). – Modification of the fixing resistance (§ 8.2 and Table 4). – Editorial corrections.

The technical approvals are regularly updated. It is recommended that you always use the version published on the UBAtc website (www.butgb-ubatc.be).

The most recent version of the technical approval can be consulted by scanning the QR code on the cover page.

NORMATIVE AND OTHER REFERENCES

AGCR-RGAC	30/06/2022	UBAtc General Approval and Certification Regulations
NBN EN 1996-1-1 + ANB	2016	Eurocode 6 - Design of masonry structures - Part 1-1 : General rules for reinforced and unreinforced masonry structures - National annex
NBN EN 1996-2 + ANB	2010	Eurocode 6 - Design of masonry structures - Part 2 : Design considerations, selection of materials and execution of masonry - National annex
NBN EN 206+A2	2021	Concrete - Specification, performance, production and conformity + National complement
NBN B 15-001	2022	Concrete – Specification, performance, production and conformity – National supplement to NBN EN 206:2013+A2:2021
NBN EN 459-1	2015	Building lime - Part 1: Definitions, specifications and conformity criteria
NBN EN 771-1+A1	2015	Specification for masonry units - Part 1: Clay masonry units
NBN EN 771-2+A1	2015	Specification for masonry units - Part 2: Calcium silicate masonry units
NBN EN 771-3+A1	2015	Specification for masonry units - Part 3: Aggregate concrete masonry units (Dense and lightweight aggregates)
NBN EN 771-4+A1	2015	Specification for masonry units - Part 4: Autoclaved aerated concrete masonry units
NBN EN 771-6+A1	2015	Specification for masonry units - Part 6: Natural stone masonry units
NBN EN 845-1+A1	2016	Specification for ancillary components for masonry - Part 1: Wall ties, tension straps, hangers and brackets
NBN EN 998-1	2016	Specification for mortar for masonry - Part 1: Rendering and plastering mortar
NBN EN 998-2	2016	Specification for mortar for masonry - Part 2: Masonry mortar
NBN EN 13967+A1	2017	Flexible sheets for waterproofing - Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet - Definitions and characteristics
NBN B 14-210	2022	Renders and plasters testing – Bond strength by pull-off test (in-situ)
NBN EN 772-1+A1	2015	Methods of test for masonry units - Part 1: Determination of compressive strength
NBN EN 772-11	2011	Methods of test for masonry units - Part 11: Determination of water absorption of aggregate concrete, autoclaved aerated concrete, manufactured stone and natural stone masonry units due to capillary action and the initial rate of water absorption of clay masonry units

NBN EN 772-13	2000	Methods of test for masonry units - Part 13: Determination of net and gross dry density of masonry units (except for natural stone)
NBN EN 772-14	2002	Methods of test for masonry units - Part 14: Determination of moisture movement of aggregate concrete and manufactured stone masonry units
NBN EN 772-16	2011	Methods of test for masonry units - Part 16: Determination of dimensions
NBN EN 772-20/A1	2005	Methods of test for masonry units - Part 20: Determination of flatness of faces of masonry units
NBN EN 846-5	2012	Methods of test for ancillary components for masonry - Part 5: Determination of tensile and compressive load capacity and load displacement characteristics of wall ties (couplet test)
NBN EN 1052-3/A1	2007	Methods of test for masonry - Part 3: Determination of initial shear strength
NBN EN 1745 ANB	2024	Masonry and masonry products - Methods for determining thermal properties - National annex
NBN EN 12664	2001	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Dry and moist products of medium and low thermal resistance
NBN EN 13501-1	2019	Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests
NBN EN 13823	2014	Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item
NBN EN 14581	2005	Natural stone test methods - Determination of linear thermal expansion coefficient
NBN EN ISO 12571	2013	Hygrothermal performance of building materials and products - Determination of hygroscopic sorption properties
NBN EN ISO 12572	2001	Hygrothermal performance of building materials and products - Determination of water vapour transmission properties - Cup method
STS 22-1	2019	Masonry for low construction – Materials
STS 22-2	2019	Masonry for low construction – Stability
EAD 150008-00-0301	2017	Rapid setting cement
EAD 330232-01-0601	2019	Mechanical fasteners for use in concrete

1 Object

The ISOHEMP hemp concrete block is innovative masonry unit made from lime-hemp concrete. The ISOHEMP hemp concrete block is used as a masonry element in non-load-bearing infill or facing (counter-wall) masonry to contribute to the building's thermal and acoustic performance.

This technical approval ONLY concerns solid ISOHEMP hemp concrete blocks, bonded with the ISOHEMP thin-layer mortar. Special ISOHEMP hemp concrete blocks (U-blocks and perforated blocks) are NOT covered by this technical approval.

Lintels, beams, and footings are NOT covered by this technical approval.

This technical approval does not, in any way, assess the quality of the on-site installation (e.g., appropriate protection against moisture) of ISOHEMP hemp concrete blocks.

2 Application

This technical approval concerns solid ISOHEMP hemp concrete blocks used in non-load-bearing construction elements that are not subjected to loads, considering the product's performance as mentioned in Table 1 and § 10, and properly protected from moisture (see sections 7.6 and 7.7).

ISOHEMP hemp concrete blocks can, for example, be used as masonry elements in infill and partition walls of steel, wood, or concrete beam-column structures, or as facing (counter-wall) for masonry walls.

ISOHEMP hemp concrete blocks must be placed on a stable and sufficiently rigid surface, such as:

- Heavy and light concrete (NBN EN 206 + NBN B 15-001), with the BENOR mark or equivalent.
- Precast concrete components.
- Masonry (NBN EN 771 series).
- Metal profiles.

The suitability of ISOHEMP hemp concrete blocks for use as an exterior support to be plastered (ETICS with plaster) or cladded with tiles/slips (ETICS with hard cladding) was NOT assessed during the approval review.

The suitability of ISOHEMP hemp concrete blocks for use as an interior support to be tiled was NOT assessed during the approval review.

3 Components and other material

3.1 Hemp concrete

The hemp concrete used for manufacturing ISOHEMP hemp blocks is composed of hemp shives (chènevotte), a mixture of aerial and hydraulic lime, and water.

3.2 ISOHEMP thin-layer mortar

ISOHEMP thin-layer mortar is a prescribed masonry mortar composed of natural gypsum, aerial lime, and sand, in accordance with NBN EN 998-2. It is supplied in 25 kg bags.

Add 7 to 8 litres of water per bag and mix manually or mechanically (at low speed) until a homogeneous paste is obtained. The workability period of ISOHEMP thin-layer mortar is 1 hour. During application, the temperature must be between 5 and 30°C (free from frost and rain).

3.3 Bed joint reinforcement

Bed joint reinforcement for masonry Murfor® Compact I.

3.4 Fiberglass mesh reinforcement

Fiberglass reinforcement mesh for coatings, with a tensile strength of 1100 N/50 mm.

4 ISOHEMP hemp concrete block

ISOHEMP hemp concrete blocks are made of hemp concrete and are illustrated in Figure 1.

ISOHEMP hemp concrete blocks are available in various widths, ranging from 75 to 360 mm. The 300 mm and 360 mm wide blocks are additionally equipped with an interlocking system featuring tongue-and-groove joints on their headers.

ISOHEMP hemp concrete blocks are certified by the certification body according to Product Certification Scheme 5 of NBN EN ISO/IEC 17067.

The properties of ISOHEMP hemp concrete blocks are given in Table 1. As part of the continuous product evaluation, the characteristics of ISOHEMP hemp blocks will be adjusted whenever new knowledge is acquired or when information is collected through external monitoring for ATG certification. For example, the evaluation of long-term conductivity is included in this monitoring process.

Fig. 1 – Types of ISOHEMP hemp concrete blocks

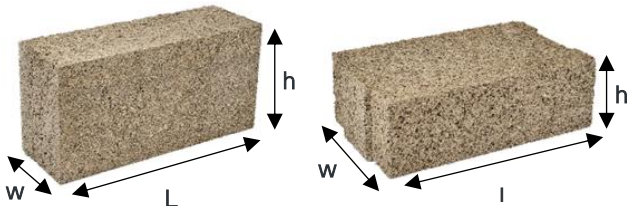

Table 1 – ISOHEMP hemp concrete blocks

Characteristic	Masonry unit							
Type	B07	B09	B12	B15	B20	B25	B30	B36
Length L [mm] (NBN EN 772-16)	596							
Width w [mm] (NBN EN 772-16)	75	90	120	150	200	250	300	360
Height h [mm] (NBN EN 772-16)	300						200	
Dimensional tolerance (L;w;h) (NBN EN 772-16)	Dm(± 4 ; ± 4 ; -1,5/+1,0)							
Flatness of bed faces (NBN EN 772-20) [%]	≤ 2							
Plane parallelism of bed faces (NBN EN 772-16) [mm]	≤ 2							
Configuration (NBN EN 772-16 and NBN EN 1996-1-1)	Group 1							
Gross dry density (50/50-value) [kg/m^3] (NBN EN 772-13)	310	270						
Tolerances on gross dry density [%]	±5							
Mean compressive strength [(1)] (50/95) [N/mm^2] (NBN EN 772-1)	0,20							
Reaction to fire (NBN EN 13823 and NBN EN 13501-1)	Class B-s1, d0							
Water absorption by capillary [g/m^2.s] (NBN EN 772-11)	8,1 (stretcher)							
Initial rate of water absorption [kg/m^2.min] (NBN EN 772-11)	2,9 (bed face)							
Moisture movement (shrinkage and expansion) [mm/m] (NBN EN 772-14[(2)])	≤ 3,2							
Water vapour diffusion resistance coefficient (μ) [-] (NBN EN ISO 12572)	< 3,0							
Linear thermal expansion coefficient [m/mK] (NBN EN 14581)	15,3 x 10^{-6} (mean – C.o.V : 15 %)							
Moisture content volume by volume $\psi_{23\text{-}50}$ [m^3/m^3] (NBN EN ISO 12571)	0,012							
Thermal conductivity (NBN EN 12667 – 50/50-value – method S2)								
– $\lambda_{10,dry,unit}$ [W/m.K]	0,073	0,066						
– $\lambda_{10,23\text{-}50,unit}$ [W/m.K]	0,075	0,069						
Thermal conductivity (NBN EN 1745 ANB – 90/90-value – method S2)								
– λ_D [W/mK]	0,077	0,068						
– λ_{Ui} [W/mK]	0,080	0,071						

(1) : The compressive strength is determined on samples on the date of release of the products.

(2) : Specimens were delivered unsealed in a bag, deviating from the standard. The age of the specimens at the start of the test was 34 and 36 weeks instead of 22 days, as prescribed by the standard.

5 Manufacturing and marketing

The ISOHEMP hemp concrete blocks are marketed by IsoHemp SA and manufactured by IsoHemp SA at its factory in Fernelmont.

The average compressive strength of ISOHEMP hemp concrete blocks is at least 0.20 N/mm^2 upon delivery.

The ISOHEMP hemp concrete blocks are packaged on pallets in accordance with Table 2.

6 Using the ATG mark

The approval holder is entitled to display the ATG logo, together with the ATG number, on the insert (packaging) or accompanying documents.

Table 2 – ISOHEMP hemp concrete blocks

Type	Nombre
PAL07	84
PAL09	72
PAL12	54
PAL15	42
PAL20	30
PAL25	24
PAL30	30
PAL36	25

7 Application of the product

For the application, we refer to the installation guidelines provided by the approval holder. These guidelines are monitored by the certification body as part of the certification process.

7.1 Preparation

Masonry walls built with ISOHEMP hemp concrete blocks must be placed on a stable and sufficiently rigid support.

Before masonry work begins, profiles and a mason's string should be used to check the vertical alignment of both surfaces perpendicular to the ground, as well as the level of the layers.

7.2 Base layer

The base layer is the first layer at the bottom of the wall.

The ISOHEMP hemp concrete blocks must be protected from the risk of rising damp. To prevent capillary rise issues, the base layer should be placed on a waterproof membrane according to NBN EN 13967. The waterproofing membrane must be wide enough to extend on both sides of the base layer. If a discontinuous membrane is used, an overlap of at least 20 cm must be provided between membranes.

A masonry mortar for general purpose according to NBN EN 998-2 should be applied between the waterproofing membrane and the base layer to create a 1 to 2 cm thick mortar joint.

For blocks without tongue-and-groove joints, the head joint between blocks is fully filled, with a thickness of approximately 3 mm. For blocks with tongue-and-groove joints, the head joint remains open.

The flatness of the upper bed face of the base layer must be checked using a level (both transversely and along the length of the wall, ensuring no misalignment between adjacent blocks).

If rising damp is not an issue, the base layer can be laid directly on the floor, for concrete slabs, using a 1 to 2 cm bed joint with a masonry mortar for general purpose or, for timber/OSB floors, using an appropriate adhesive foam.

7.3 Upper layers

The surface where ISOHEMP thin-layer mortar is applied (upper bed face of the blocks layer beneath) must always be scraped, sanded, and brushed using a plaster scraper and a soft-bristle brush.

The following layers are laid using ISOHEMP thin-layer mortar with a 3 mm joint thickness (bed and head joints). However, for tongue-and-groove blocks, head joints remain open. The blocks must be laid in a staggered pattern, with a minimum bed joint offset of at least one block width between successive layers.

Any excess thin-layer mortar should be removed with a trowel.

For facing walls (Counter-Walls) attached to an existing wall, the ISOHEMP hemp concrete block wall must be mechanically fixed to the existing wall with at least 5 fixings (3 fixings) per square meter if the blocks are placed on the external (internal) side of the wall. One mechanical fixing per block is recommended for less stable areas, such as above an opening.

Note: If the existing wall (or the inner leaf) is not plumb (see NBN EN 1996-2 + ANB), the gap between the two walls must be filled with a suitable mixture (1 bag of ProKalk lime for 1 bag of HempBag) or with HLMIX.

7.4 Top layer

The top layer of ISOHEMP hemp concrete blocks should be cut to leave a minimum gap (maximum 2 cm) between the blocks and the ceiling. This gap should then be filled with a masonry mortar, a flexible insulation or an adhesive foam.

7.5 Wall fixings

Light objects can be fixed to a wall made of ISOHEMP hemp concrete blocks using wood screws with a minimum diameter of 6 mm (anchorage depth: 7 cm). The weight per attachment point must not exceed 5 kg.

Heavier objects can be fixed to a wall made of ISOHEMP hemp concrete blocks using wood screws with a minimum diameter of 8 mm (anchorage depth: 95 mm) or special plugs recommended by IsoHemp. The weight per attachment point must not exceed 10 kg.

For very heavy objects, a chemical anchoring sealing is required (anchorage depth 90 mm). The weight per attachment point must not exceed 50 kg.

7.6 Application in external masonry

External masonry refers to using ISOHEMP hemp concrete blocks as part of cavity walls.

In this case, the ties (anchors) must be directly fixed into the inner and outer leaves of the walls, passing through the ISOHEMP hemp concrete blocks placed against the inner wall.

Additionally, ISOHEMP hemp concrete blocks must be protected from capillary rise using one of the following methods:

- Installing a waterproofing membrane that extends at least 20 cm above ground level.
- Using a rot-proof insulating masonry element for the base layer, with a waterproofing membrane placed on top to protect the upper layers from capillary rise.
- Using a base angle bracket as a support for the wall made out ISOHEMP hemp concrete blocks. The bracket must be fixed at least 20 cm above ground level into a stable and strong existing wall. Each block must be fixed to the bracket with a 6 mm diameter, 80 mm long screw, and to the existing wall using a hook or bracket connector.

7.7 Exposure to moisture

Due to the hygrometric shrinkage-swelling behaviour of ISOHEMP hemp blocks (see Table 1), they must be protected from moisture using an appropriate method.

8 Performance

The performance of ISOHEMP hemp concrete blocks and masonry walls made out ISOHEMP hemp concrete blocks and ISOHEMP thin-layer mortar is determined based on test results from standardized test performed in laboratories recognized by the approval operator.

8.1 Adhesion of plasters

The adhesion of plasters to the ISOHEMP hemp concrete block has been determined in accordance with NBN B 14-210 (80 mm diameter patch, speed of 1 bar/s) and NBN EN 1015-12 (50 mm diameter patch, speed of 15 N/s). The results (mean values) are presented in Table 3.

Table 3 – Adhesion of plasters

Patch diameter	Adhesion to ISOHEMP hemp concrete block
[mm]	[N/mm^2]
50	0,09
80	0,06

Failure: within the ISOHEMP hemp concrete block.

The characteristic value (60% of the average value) must be divided by a partial safety factor γ_M of 2.0 to obtain the design value.

8.2 Fixing resistance

The transversal and axial (tensile) resistance of fixings in the ISOHEMP hemp concrete block has been determined using an adapted method based on Annex B of EAD 330232-01-0601, see Figure 2.

The characteristic resistances, presented in Table 4 and Table 5, are determined with a confidence level of 75%.

The tests were carried out with anchor lengths shown in Table 4 and Table 5.

Fig. 2 – Types of ISOHEMP hemp concrete blocks

(a) (b)

Table 4 – Axiale (tensile) characteristic strength of fixings

Fixing type	Anchorage length	Axial (tensile) characteristic strength
-	[mm]	[N]
Wood screw (diameter 6 mm, length 100 mm)	60	227
Wood screw (diameter 8 mm, length 160 mm)	95	554
Porous concrete screw (diameter 10 mm, length 160 mm)	80	576
Wood screw (diameter 8 mm, length 160 mm) + Plug HempFix (diameter 27 mm x 90 mm)	90	935
Bolt M 10 x 120 mm + chemical anchoring	90	1782

Table 5 – Transversal characteristic strength of fixings

Fixing type	Anchorage length	Transversal characteristic strength
-	[mm]	[N]
Wood screw (diameter 6 mm, length 100 mm)	80	582
Wood screw (diameter 8 mm, length 160 mm)	130	846
Porous concrete screw (diameter 10 mm, length 160 mm)	130	1125
Wood screw (diameter 8 mm, length 160 mm) + Plug HempFix (diameter 27 mm x 90 mm)	90	1369
Bolt M 10 x 120 mm + chemical anchoring	90	1115

The characteristic value must be divided by a partial safety factor γ_M of 2.0 to obtain the design value.

The tensile and compressive resistance of fasteners placed in the adhesive mortar joint between two blocks (with the bent end embedded in the block) has been determined in accordance with NBN EN 846-5, see Figure 3. The results are given in Table 5.

Fig. 3 – Test Configuration – Tensile/Compressive resistance of fixings in the ISOHEMP thin-layer mortar joint between two ISOHEMP hemp concrete blocks

Table 6 – Tensile and compressive strength of fixings

Resistance	Bent end (in joint)	
	Tensile	Compression
	[N]	[N]
Mean value	670	770
Minimum value	500	430

Based on the test results given in Table 5 and in accordance with NBN EN 845-1, the following characteristics should be considered for the resistance of fixings in the ISOHEMP thin-layer mortar joint between two ISOHEMP hemp concrete blocks:

- Tensile resistance: 670 N
- Compressive resistance: 610 N

A partial safety factor must be applied to these values (see NBN EN 1996-1-1 ANB) to obtain the design value:

- Execution class S: γ = 2.2.
- Execution class S: γ = 2.7.

8.3 Bending strength

The characteristic bending resistances in the horizontal direction (failure surface parallel to the horizontal joints) and vertical direction (failure surface perpendicular to the horizontal joints), f_{xk1} and f_{xk2}, respectively, have not been evaluated.

8.4 Shear strength

The initial characteristic shear strength (f_{vk0}) was determined by testing in accordance with NBN EN 1052-3 on a series of six samples with nominal dimensions (L x W x H) of 300 x 200 x 600 mm.

Result: f_{vk0} = 0.04 N/mm^2.

A partial safety factor must be applied to these values (see NBN EN 1996-1-1 ANB) to obtain the design value:

- Execution class S: γ = 2.5.
- Execution class S: γ = 3.0.

8.5 Acoustics

The technical approval does not provide information on the acoustic properties of infill or facing walls made out ISOHEMP hemp concrete blocks.

8.6 Impact resistance

Impact resistance tests were performed on walls made out ISOHEMP hemp concrete blocks according to the EOTA technical report TR 001: "Determination of impact resistance of panels and panel assemblies".

The tests were performed on two interior masonry walls, each measuring 1.5 x 1.5 m, made out ISOHEMP hemp concrete blocks with dimensions of 600 x 150 x 300 mm. One wall (Wall 1) was reinforced with bed joint reinforcement of the Murfor Compact I-50 type.

The walls were plastered using the natural "ISOHEMP" render, reinforced with Knauf GITEX mesh.

8.6.1 Impact resistance – hard body

The impact resistance was determined by the impact of a small hard body (steel ball) with energies of 2.5 J and 6 J (3 impacts – serviceability limit state (SLS)) and 10 J (1 impact – ultimate limit state (ULS)). The observations are provided in Table 6.Table 7 – Impact resistance (hard body)

Level	Energy	Drop height	Observation
	[J]	[cm]	
Wall 1 – reinforced masonry			
ELS	2,5	50	Imprint (diameter 19-21 mm)
ELS	6	120	Imprint (diameter 28-29 mm)
ELU	10	100	Imprint (diameter 35 mm)
Wall 2 – unreinforced masonry			
ELS	2,5	50	Imprint (diameter 21-22 mm)
ELS	6	120	Imprint (diameter 27-28 mm)
ELU	10	100	Imprint (diameter 34 mm)

8.6.2 Impact resistance – soft body

The impact resistance was determined by the impact of a soft body (sandbag) weighing 50 kg with energies of 60 J and 120 J (3 impacts – serviceability limit state (SLS)) and 100 J, 200 J, 300 J, 400 J, and 500 J (1 impact – ultimate limit state (ULS)). The observations are provided in Table 7.

Table 8 – Impact resistance (soft body)

Level	Energy	Drop height	Observation
	[J]	[cm]	
Wall 1 – reinforced masonry			
ELS	60	12	No penetration No degradation
ELS	120	24	
ELU	100	20	No penetration No degradation
ELU	200	40	
ELU	300	60	
ELU	400	80	
ELU	500	100	No penetration Cracked wall (barely visible) No dangerous projection
Wall 2 – unreinforced masonry			
ELS	60	12	No penetration No degradation
ELS	120	24	
ELU	100	20	No penetration No degradation
ELU	200	40	
ELU	300	60	No penetration Cracked wall (1 barely visible crack) No dangerous projection
ELU	400	80	No penetration Cracked wall (extension of the crack – barely visible) No dangerous projection
ELU	500	100	No penetration Cracked wall (3 cracks, 2 barely visible and 1 more pronounced) No dangerous projection

8.6.3 Impact resistance – conclusions

Table 9 – Impact resistance

	Criterium UBAtc	Result
Unreinforced masonry with ISOHEMP hemp concrete blocks (150 mm) and reinforced plaster coating	I, II, III or IV	I and II
Reinforced masonry with ISOHEMP hemp concrete blocks (150 mm) and reinforced plaster coating	I, II, III or IV	I, II and III
Type I :	Zones accessible primarily to those with high incentive to exercise care. Small risk of accidents occurring and of misuse (100 Nm).	
Type II :	Zones accessible primarily to those with some incentive to exercise care. Some risk of accidents occurring and of misuse (200 Nm).	
Type III :	Zones readily accessible to public and others with little incentive to exercise care. Risk of accidents occurring and of misuse (300 Nm).	
Type IV :	Zones and risk as II and III. In case of failure, risk includes the fall to a floor at a lower level (400 or 500 Nm, depending on regulatory requirements)	

CONDITIONS FOR THE USE AND MAINTENANCE OF THE ATG

A. This technical approval applies exclusively to the construction products referred to on the cover page of this document.

B. The approval holder and, if applicable, the distributor are not permitted to make any use of the name of the UBAtc, its logo, the ATG mark, the technical approval or the approval reference to claim assessments of products which do not comply with the technical approval or for a product (and its properties or characteristics) which is not the subject of the technical approval.

C. The technical approval is based on the available technical and scientific knowledge and information, together with the information provided by the applicant and completed by an approval examination taking into account the specific nature of the product. Nevertheless, users remain responsible for selecting the product as described in the technical approval, for specific uses intended by the user.

D. Only the approval holder and, if applicable, the distributor may assert rights based on the technical approval.

E. Any references to the technical approval shall be accompanied by the ATG reference 3169 and the validity period.

F. The approval holder and, if applicable, the distributor obliged to comply with the examination results specified in the technical approval when making information available to third parties. The UBAtc or the certification operator may take any appropriate action if the approval holder [or the distributor] fails to do so (sufficiently) on its own initiative.

G. Information made available in any way by the approval holder, distributor or a recognized contractor or by their representatives to (potential) users of the product covered by the technical approval (e.g. for clients, contractors, architects, consultants, designers, etc.), may not be incomplete or contradict the content of the technical approval or information referred to in the technical approval.

H. The UBAtc, the approval operator and the certification operator cannot be held responsible for any damage or adverse consequences caused to third parties as a result of the failure of the approval holder or distributor to comply with the provisions of this document.

I. This technical approval shall remain valid, provided that the product, its manufacture and all related processes:

- are maintained, in order to achieve, as a minimum, the examination results specified in this technical approval;
- are continuously monitored by the certification operator, which confirms that the certification continues to be valid.

If these conditions are no longer met, the technical approval shall be suspended or withdrawn and the technical approval shall be removed from the UBAtc website. Technical approvals are regularly updated.

J. The approval holder is at all times obliged to inform in advance the UBAtc, the approval operator and the certification operator of any possible adjustments made to raw materials and products, installation instructions and/or the manufacturing and installation processes and equipment. Depending on the information provided, the UBAtc, the approval operator and the certification operator will assess whether or not it is necessary to adapt the technical approval.

This technical approval has been published by UBAtc, under the responsibility of the approval operator, SECO/Buildwise, and based on a favourable opinion by specialised group "MAIN WORKS & CONSTRUCTION SYSTEMS", expressed on 17 June 2024.
In addition, the certification operator, BCCA, confirmed that the production process meets the conditions for certification and that a certification agreement has been signed by the ATG holder.

Date of issue: 6 February 2026.

For the UBAtc, as validating the approval process

Bart De Pauw
General Manager

For the operators

Buildwise

Olivier Vandooren
Director

SECO Belgium

Bernard Heiderscheidt
Director

BCCA

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