BUtgb vzw - UBAtc asbl

MAIN WORKS – MASONRY AND RELATED PRODUCTS

INNOVATIVE MASONRY UNIT

HEMP CONCRETE UNIT

ISOHEMP

Valid from 03/09/2024 to 02/09/2029

Approval holder:

Isohemp sa
Rue Georges Cosse, 1
B-5380 FERNELMONT
Tel: +32 (0)81 39 00 13
Fax: +32 (0)81 39 00 14
Website: www.isohemp.be

ATG 3169 UBAtc BUtgb

A Technical Approval is based on a favourable evaluation of a construction product conducted by a skilled, independent and impartial approval body designated by UBAtc for a specific application.

The Technical Approval serves as a record of the approval inspection. This inspection consists of the following:

- identification of relevant properties of the system for the intended application, laying (or installation) method,
- product design,
- reliability of production.

The Technical Approval provides a high level of reliability, based on the statistical interpretation of inspection results, regular monitoring and adjustments, in order to keep abreast of the situation, the latest technical developments and quality monitoring by the Approval Holder.

In order to retain the Technical Approval, the approval holder must continuously provide evidence that he is taking all necessary steps to demonstrate that the system is suitable for use. In order to do so, it is vital that the conformity of the system with the Technical Approval is monitored. This monitoring is entrusted by the UBAtc to a skilled, independent and impartial Certification Body.

The Technical Approval and certification for conformity of the product to the technical approval are independent of tasks conducted individually. The contractor and/or architect remain fully responsible for the conformity of the completed work with the provisions contained in the specifications.

The Technical Approval is not concerned, except in specifically included provisions, with on-site safety, health aspects and the sustainable use of raw materials. As a result, the UBAtc shall not be 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 on-site safety, health aspects and the sustainable use of raw materials.

Approval holders

Buildwise

Kleine Kloosterstraat 23 1932 Sint-Stevens-Woluwe
info@buildwise.be - www.buildwise.be

SECO Belgium

Head office: Cantersteen 47 1000 Bruxelles
Offices: Hermeslaan 9 1831 Diegem
mail@seco.be - www.groupseco.be

Certification body

BCCA

Head office: Cantersteen 47 1000 Bruxelles
Offices: Hermeslaan 9 1831 Diegem
mail@bcca.be - www.bcca.be

FOREWORD

This document concerns a modification of the technical approval text ATG 3169, valid from 16/01/2020 until 15/01/2025. The modifications in comparison with the previous version are the followings:

Modifications in comparison with the previous version
– update

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 § 8, 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.

3.1.1 Binder

The binder is a mixture of aerial lime, with a minimum CaO content of 80%, and hydraulic lime with a compressive strength of at least 20 N/mm² after 90 days.

3.1.2 Aggregate

The aggregates consist of hemp shives.

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 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

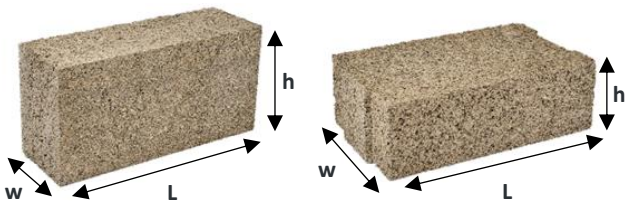

Table 1 – ISOHEMP hemp concrete blocks

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/m³] (NBN EN 772-13)	360	265						
Tolerances on gross dry density [%]	±5							
Mean compressive strength [(1)] (50/95) [N/mm²] (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/m².s] (NBN EN 772-11)	8,1 (stretcher)							
Initial rate of water absorption [kg/m².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 $\psi_{23\text{-}50}$ [m³/m³] (NBN EN ISO 12571)	0,012							
Thermal conductivity (NBN EN 12667 – 50/50-value – method S2)								
– $\lambda_{10,dry,unit}$ [W/m.K]	0,081	0,066						
– $\lambda_{10,23\text{-}50,unit}$ [W/m.K]	0,085	0,069						
Thermal conductivity (NBN EN 1745 ANB – 90/90-value – method S2)								
– λ_D [W/mK]	0,083	0,068						
– λ_{Ui} [W/mK]	0,087	0,071						

(1) : The compressive strength is determined on samples aged 12 weeks.
(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/mm² upon delivery.

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

Table 2 – ISOHEMP hemp concrete blocks

Type	Nombre
PAL07	84
PAL09	72
PAL12	54
PAL15	42
PAL20	30
PAL25	24
PAL30	18
PAL36	25

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.

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 dry (without mortar) inside a PVC U-profile or 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 HLMIX hemp).

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/mm²]
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 results are presented in Table 4.

Fig. 2 – Types of ISOHEMP hemp concrete blocks

(a) (b)

Table 4 – Characteristic strength of fixings

Fixing type	Characteristic strength	
	Transversal	Axial
	[N]	[N]
Wood screw (6 mm diameter)	146	102
Wood screw (8 mm diameter)	227	210
Aerated concrete screw (8 mm diameter)	363	312
Bolt M12 x 120 + chemical anchoring	1022	924

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 5 – 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/mm².

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 6 – 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 7 – 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 8 – 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 USE AND MAINTENANCE OF THE ATG

A. This technical approval refers exclusively to the construction product mentioned on the cover page of this document.

B. The approval holder and, if applicable, the distributor are not permitted, in any way, to use the name of the UBAtc, its logo, the technical approval mark, the technical approval or the approval number to demand the evaluation of products that fail to comply with the Technical Approval or products, including their properties or characteristics, which do not form the object of the technical approval.

C. The technical approval is based on the available knowledge and technical/scientific information, together with information provided by the applicant and complemented by an approval inspection, which takes account of the specific nature of the product. However, users remain responsible for selecting the product, equipment or system, as described in the technical approval, for the specific use 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 must be accompanied by an identification number (ATG 3169) and the validity period.

F. The approval holder and, if applicable, the distributor is required to adhere to the inspection results described in the technical approval if they make information available to third parties. The UBAtc or certification body may take any steps that become appropriate if the approval holder [or the distributor] intentionally fails to do so (to a sufficient extent).

G. Information provided in any way by the approval holder, distributor or an approved contractor or by their representatives for (potential) users of the product, which is described in the technical approval (e.g. for clients, contractors, architects, consultants, designers, etc.) must not be incomplete or contradict the content of the technical approval or information mentioned in the technical approval.

H. The UBAtc, the approval body and the certification body cannot be held responsible for any damage or adverse consequences suffered by third parties that result from the failure of the approval holder or distributor to respect the provisions of this document.

I. This technical approval shall remain valid, provided the product, its manufacture and all processes that are appropriate for this purpose:

- are maintained, in order to achieve, as a minimum, the inspection results defined in the approval document.
- are continuously monitored by the certification body, 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 approval document shall be deleted from the UBAtc website.

J. The approval holder is bound at all times to provide UBAtc, the approval body and the certification body with prompt or prior notification of any adjustments made to primary materials and products, installation instructions and/or the manufacturing, installation and equipment process. According to the information communicated, the UBAtc, the approval body and the certification body will judge whether it is necessary to adjust the technical approval.

This technical approval has been published by UBAtc, under the responsibility of the approval body SECO/Buildwise, and based on favourable feedback from the specialist “MAIN STRUCTURE AND CONSTRUCTION SYSTEMS” group, issued on 17 June 2024.
In addition, the BCCA certification body has confirmed that the production process meets the conditions for certification and that a certification agreement was signed by the approval holder.

Date of issue: 3 September 2024.

For **UBAtc**, declaration of the validity of the approval process

Eric Winnepenninckx
Director

Frederic De Meyer
Director

For the approval and certification bodies

Buildwise

Olivier Vandooren
Director

SECO Belgium

Bernard Heiderscheidt
Director

BCCA

Olivier Delbrouck
Director

BUtgb vzw - UBAtc asbl

The Belgian Union for Technical Approval in Construction asbl

Union belge pour l'Agrément technique de la construction asbl

Head office and other offices

Kleine Kloosterstraat 23
1932 Sint-Stevens-Woluwe

Tel.: +32 (0)2 716 44 12
info@butgb-ubatc.be
www.butgb-ubatc.be

VAT: BE 0820.344.539
Register of Legal Persons of Brussels

UBAtc asbl has been notified by the FPS Economy within the framework of Regulation (EU) 305/2011.

UBAtc asbl is an accredited body and member of: