

CLASSIFICATION REPORT OF FIRE RESISTANCE

**Subject of
classification:**

*Non-loadbearing walls
in accordance with ČSN EN 13501-2:2024, cl. 7.5.2*

Report No.:

PK2-05-14-904-E-2

Product name:

*Non-loadbearing wall - prefab glass brick wall
Symmetrical construction*

Sponsor:

*Seves Glass Block s.r.o.
Bílinská 782/42
419 01 Duchcov
Czech Republic*

Prepared by:

*PAVUS, a.s.
Certification body for product certification No. 3041
– Accreditation issued by Czech Accreditation Institute, p. s. c.,
– Certificate of Accreditation No. 16/2024*

*Prosecká 412/74
190 00 PRAGUE 9
Czech Republic*

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1 INTRODUCTION

- 1.1 This classification report defines the resistance to fire classification assigned to element - *Non-loadbearing wall - prefab glass brick wall* - in accordance with the procedures given in ČSN EN 13501-2:2024.
- 1.2 This classification report consists of 4 pages and may only be used or reproduced in its entirety.
- 1.3 This classification report supersedes and cancels classification report No. PK2-05-14-904-A-1 from 2019-09-25.

2 DETAILS OF CLASSIFIED PRODUCT

2.1 General

The element - *Non-loadbearing wall - prefab glass brick wall* – is defined as a non-loadbearing wall. It has to perform the function of a fire separating structure with regard to the fire characteristics of the properties mentioned in cl. 5 ČSN EN 13501-2.

2.2 Description

The glass brick wall consists of 196 glass brick, placed in fourteen rows of fourteen bricks each. Glass brick WECK SHS (manufacturer SEVES GLASS BLOCK s.r.o.) with a hollow inner space of 50 mm thick, exterior dimensions: (190 x 190) mm, thickness: 100 mm (new marking 1919/10 30F). There is a 10 mm joint between the glass brick; this joint is filled with BEAMIX VERHAERT 932 mortar (manufacturer SAINT-GOBAIN), density 2 072 kg/m³. The edge of the glass brick wall is also made of mortar and has a width of 90 mm and a thickness of 100 mm. Two reinforcement bars (smooth steel, Ø 8 mm) are placed in each horizontal and vertical joint between the glass bricks. Two reinforcement bars (smooth steel, Ø 8 mm) are placed in the wall edges, both horizontally and vertically. The dimensions of a prefab glass brick wall: (2 980 x 2 980 x 100) mm (height x width x thickness).

At the top and at two vertical sides, the glass brick wall is attached to the supporting construction in four places by means of a steel fixing plate (galvanized steel, thickness: 3 mm, dimensions: (40 x 270) mm) which is attached to the glass brick wall by means of bolts (M10, length 20 mm) placed in a fixing sleeve (VEMO, interior diameter: M10) in the wall.

The fixing sleeve is anchored into the wall by means of a steel wire (Ø 3.5 mm, l = 130 mm). The fixing plate is attached to the supporting construction by means of a screw (Ø 4.5 mm, l = 80 mm, with matching steel pinion and PVC plug). The gaps between the glass brick and the supporting construction are filled with SOUDAL SOUDAFOAM FR insulation foam (manufacturer SOUDAL FR) and finished off with PROMAT FIRECRYL FR silicone paste (manufacturer PROMAT FR).

Name and address of the manufacturer of the glass bricks: VITRABLOK, a.s.*, Bílinská 42, 419 14 Duchcov, Czech Republic.

Name and address of the manufacturer of the test specimen – glass brick wall: Verheart & Co, Ter Stratenweg 35, KMO-zone Ter Straten, B-2520 OELEGEM (RANST), Belgium.

Description and drawings of the product is mentioned in Test report No. 11861A, issued WFRGENT NV, dated 2006-02-22.

** On the basis of the document "Transfer of business plant and business contracts of VITRABLOK, s.r.o." the transfer was made to the company Seves Glass Block s.r.o. from 1.7.2024.*

3 TEST REPORTS / EXTENDED APPLICATION REPORTS AND TEST RESULTS IN SUPPORT OF THE CLASSIFICATION

3.1 Test reports / extended application reports

Name of laboratory Address Accreditation No.	Name of sponsor	Report ref. No. Date of issue	Test standard and date / field of extended application standards and dates
WFRGENT NV OttergemsesteenwegZuid 711 B-9000 Ghent, Belgium BELTEST 256-T	VITRABLOK a.s.* Bílinská 42 419 14 Duchcov Czech Republic	11861A 2006-02-22	EN 1364-1:1999

* On the basis of the document "Transfer of business plant and business contracts of VITRABLOK, s.r.o." the transfer was made to the company Seves Glass Block s.r.o. from 1.7.2024.

3.2 Test results

Test method Report number Date of issue	Parameter	Results, details of load
EN 1364-1 11861A 2006-02-22	Exposure conditions Direction of exposure Number of exposed faces Support conditions	<i>standard curve time / temperature symmetrical structure 1 Rigid standard supporting construction with high density from concrete with thickness of 100 mm, anchored around the perimeter</i>
	Integrity (E) - cotton pad - gap gauges - sustained flaming	<i>73 minutes 120 minutes, no failure 120 minutes, no failure</i>
	Insulation (I) - average temperature - maximum temperature	<i>31 minutes 31 minutes</i>
	Radiation (W) - het flux 15 kW.m ⁻²	<i>71 minutes</i>

4 CLASSIFICATION AND FIELD OF APPLICATION

4.1 Reference of classification

This classification has been carried out in accordance with Clause 7.5.2 of ČSN EN 13501-2:2024.

Test was carried out in accordance with EN 1364-1:1999; test procedure and test conditions complied with requirements of ČSN EN 1364-1:2017.

4.2 Classification

The element - *Non-loadbearing wall - prefab glass brick wall* - is classified according to the example of the following combinations of performance parameters and classes as appropriate.

Fire resistance classification:

E 60 / EI 30 / EW 60

Symmetrical construction

4.3 Field of application

This classification is valid for the following end use application in accordance with ČSN EN 1364-1. The results of the fire test are directly applicable to similar constructions where one or more of the changes listed below are made and the construction continues to comply with the appropriate design code for its stiffness and stability:

- increase the height is not allowed;
- the width of identical construction cannot be increased.

The result is applicable to high density rigid supporting constructions with at least the same fire resistance as the test specimen.

5 LIMITATIONS

This classification is valid unless the conditions, under which it was issued, have been changed (i.e., until the materials used, the composition or design of the product or the technical regulations relating to the product change).

The sponsor may request the issuing authority to review the influence of changes on the classification validity.

This classification document does not represent type approval or certification of the product.

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