



PAVUS, a.s.

AUTHORIZED BODY 216
NOTIFIED BODY 1391
Accredited certification body for product certification
No. 3041

Branch: FIRE TESTING LABORATORY
VESELÍ NAD LUŽNICÍ
Čtvrť J. Hybeše 879
CZ 391 81 Veselí nad Lužnicí
Czech Republic

Address:
Prosecká 412/74, CZ 190 00 Prague 9-Prosek
Phone: +420 286 019 587, Fax: +420 286 019 590
E-mail: mail@pavus.cz, http://www.pavus.cz

Phone: +420 381 477 418
Fax: +420 381 477 419
E-mail: veseli@pavus.cz

CLASSIFICATION REPORT OF FIRE RESISTANCE

Object of classification: *Non-loadbearing walls in accordance with
ČSN EN 13501-2+A1:2010, cl. 7.5.2*

Identification number:

PK2-05-14-904-A-0

**Name and type of
element:**

*Non-loadbearing wall
A glass brick wall*

Sponsor:

VITRABLOK, s.r.o.
Bílinská 42
419 14 Duchcov

Issuing organization:

PAVUS, a.s.
Authorized Body 216
Notified Body 1391
Accredited certification body for products No. 3041
- Accreditation issued by Czech Accreditation Institute, Public
Service Company
- Certificate of Accreditation No. 474/2013

Prosecká 412/74
190 00 PRAGUE 9

Order No. 514109 / Z220140257

Date of issue: 2014-08-18

Copies in total: 4

Copy number: 1

Page in total: 4

1. INTRODUCTION

- 1.1. This classification report determinates the classification of the given product in accordance with rules mentioned in ČSN EN 13501-2+A1:2010.
- 1.1. This classification report consists of 4 pages and it may only be used or reproduced in its entirety.

2. DETAILED INFORMATION OF CLASSIFIED PRODUCT

2.1. General

The subject of classification report is *Non-loadbearing wall – prefab glass brick wall* which is defined as fire resistance structure and it has function of fire resistance partition construction with respect to fire characteristics of properties stated in clause 5 of ČSN EN 13501-2+A1:2010.

2.2. Description

The glass brick wall consists of 196 glass brick, placed in fourteen rows of fourteen bricks each. Glass brick WECK SHS – with a hollow inner space of 50 mm thick, exterior dimensions: 190 x 190 mm, thickness: 100 mm. There is a 10 mm joint between the glass brick; this joint is filled with mortar (BEAMIX VERHAERT 932, volumetric weight: 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).

The glass brick wall is supported by two plastic adjusting blocks (PVC, dimensions: 75 x 45 x 10 mm). At the top and at the two vertical sides, the glass brick wall is attached to the frame in four places. This is done 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, length: 130 mm). The fixing plate is attached to the supporting construction by means of a screw (Ø 4.5 mm, length: 80 mm, with matching steel pinion and PVC plug). The gaps between the glass brick and the supporting construction are filled with insulation foam (SUDAL SOUDAFOAM FR) and finished off with a silicone paste (PROMAT FIRECRYL 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.

3. TEST REPORTS / EXTENDED APPLICATION REPORTS AND TEST RESULTS USED FOR THIS CLASSIFICATION

3.1. Test reports / extended application reports

Sponsor name of document	Name of the lab Address Accreditation number	Document number Date of fire test / issue	Test standard
WFRGENT NV OttergemsesteenwegZuid 711 B-9000 Ghent, Belgium BELTEST 256-T	VITRABLOK a.s. Bílinská 42 419 14 Duchcov	11861A 2005-11-02 2006-02-22	EN 1364-1

3.2. Stress conditions and test results

Test method Test report number Date of issue	Parameter	
EN 1364-1 11861A 2006-02-22	Thermal exposure Direction of loading Number of exposed sides Dimension of test specimen Dimension of glass brick Supporting structure	<i>standard curve time / temperature symmetrical structure 1 2 980 mm (width) x 2 980 mm (height) x 100 mm (thickness) 190 x 190 mm high density rigid construction from concrete, anchored around the perimeter</i>
	Integrity (E) - the ignition of a cotton pad - cracks or holes exceeding given limits - unstained flaming on unexposed surface	<i>73 minutes 120 minutes, no failure 120 minutes, no failure</i>
	Insulation (I) - average temperature rise (140 °C) - maximum temperature rise (180 °C)	<i>31 minutes 31 minutes</i>
	Radiation (W) - heat flux 15 kW.m ⁻²	<i>71 minutes</i>

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1. Reference

This classification has been carried out in accordance with clause 7 of ČSN EN 13501-2+A1:2010.

4.2. Classification

Non-loadbearing wall – prefab glass brick wall is classified in accordance with the following combinations of attribute parameters and fire resistance classes:

E60 / EI 30 / EW 60

4.3. Direct field of application

The results of fire resistance test are directly applicable *prefab glass brick wall* and on similar structures in accordance with ČSN EN 13501-2+A1 and ČSN EN 1364-1 in which one or more changes listed below are made and designed constructions with their stiffness and stability comply with the appropriate design code:

- a) decrease of a dimensions of glass brick, not including thickness;
- b) change in glass blocks proportions providing the biggest dimension of pane and its area isn't increased;
- c) decrease in distance of fixing centres;
- d) change in angle of mounting up to 10 degrees from the vertical
- e) increase the height is not allowed;
- f) the width of identical construction cannot be increased.

5. LIMITATIONS

This classification is valid unless the conditions under which it was issued have been changed. The sponsor may request the issuing authority to review the influence of changes to the classification validity.

The duration of the validity of this classification report is 5 years from the issue date.

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

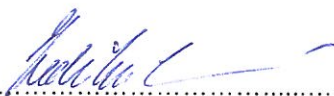
Prepared by:

Reviewed by:

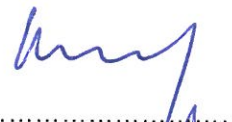
Approved by:



Magdaléna DUFKOVÁ



Zdeňka STARÁ



Jaroslav DUFEK

PAVUS, a.s.
Prosecká 412/74, 190 00 Praha 9
IČ: 60193174; DIČ: CZ60193174
(4)

