

## FIRE RESISTANCE CLASSIFICATION REPORT

**Object of classification:** *Non-loadbearing walls in accordance with  
ČSN EN 13501-2:2017, cl. 7.5.2*

**Identification number:**

**PK2-05-15-901-E-3**

**Name and type of  
element:**

*Glass concrete wall made of glass bricks 1919/8 Wave*

**Sponsor:**

**VITRABLOK, s.r.o.**  
Bílinská 42  
419 14 Duchcov  
Czech Republic

**Issuing organization:**

**PAVUS, a.s.**  
*Accredited certification body for products No. 3041  
- Accreditation issued by Czech Accreditation Institute,  
Public Service Company,  
Certificate of Accreditation No. 314/2021  
Prosecká 412/74  
190 00 PRAGUE 9*

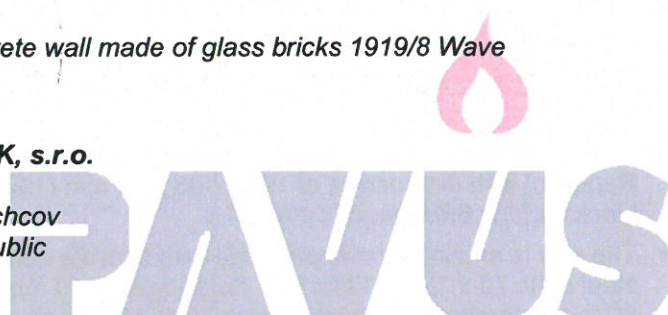
*Order No. Z220220082*

**Date of issue:** 2022-03-12

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## 1. INTRODUCTION

- 1.1. This Classification Report defines the resistance to fire classification assigned to the given element in accordance with procedures given in ČSN EN 13501-2: 2016.
- 1.2. This Classification Report includes 4 pages and may only be used or reproduced in its entirety.
- 1.3. This classification report supersedes Classification Report No. PK2-05-15-901-E-2 from the 04<sup>th</sup> April 2017.

## 2. DETAILED INFORMATION ON CLASSIFIED PRODUCT

### 2.1. General

*Glass concrete wall made of glass bricks 1919/8 Wave* has been defined as an element on non-loadbearing construction. It has been designated as a fire separating construction with regard to its fire resistance parameters mentioned in cl. 5 of ČSN EN 13501-2.

### 2.2. Description

- ◆ Prefabricated glass concrete wall symmetrical construction with dimensions of 2970 x 2970 x 80 mm
- ◆ Loadbearing reinforced concrete frame, width of rib between the glass blocks 15 mm, width of peripheral wall frame 55 mm, C16/20 concrete, B500B reinforcement in the vertical rib and frame 2x Ø 6 mm at the edges and in horizontal rib and frame 1x Ø 6 mm in axis
- ◆ Clear hollow glass blocks of 1919/8 Wave type with a ripple (supplier VITRABLOK s.r.o., Czech Republic) with dimensions of 190 x 190 x 80 mm (196 pcs in total), thickness of the glass of exposed block surface 6,6 mm
- ◆ The wall is anchored on upper edge with chasing nuts with the screw M10 x 40 mm and 2 pieces of steel plate 70 x 180 x 3 mm with distance of 1610 mm and 2x 2 pieces of screws into masonry 7,4 x 80 mm, laterals and bottom edges of wall without anchors (tested variant)
- ◆ The wall periphery sealed with ceramic wool strips Cerablanket 1260 °C (100 kg/m<sup>3</sup>) of 110 mm in width with a total thickness of about 20 mm (manufacturer Morgen Thermal Ceramics, Great Britain).

Manufacturer of the tested specimen: company SBP International s.r.o., Chotusice, Czech Republic.

For a detailed product description including drawings see Test Report No. Pr-12-2.105 from October 15<sup>th</sup> 2012.



### 3. TEST REPORTS / EXTENDED APPLICATION REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

#### 3.1. Test reports / extended application reports

Name of laboratory Address Accreditation number	Sponsor of the Test Report	Report number Date of test Date of issue	Test method
PAVUS, a. s. Veselí nad Lužnicí ATL No. 1026 Czech Republic	VITRABLOK, s.r.o. Bílinská 42 419 14 Duchcov Czech Republic	Pr-12-2.105 2012-07-31 2012-10-15	ČSN EN 1364-1: 2000

#### 3.2. Stress conditions and test results

Test method, Report number, Date of issue	Parameter	
ČSN EN 1364-1 Pr-12-2.105 2012-10-15	Fire scenario	Standard temperature / time curve
	Direction of fire exposure	Symmetrical construction
	Applied load	-
	Supporting conditions	Mounted in building opening from bricks YTONG P2-550 thickness of 250 mm, upper side anchored in test frame, both vertical and bottom sides unrestrained
	<b>Integrity (E)</b>	
	- cotton pad ignition	70 minutes, no failure
	- cracks or openings in excess of given limits	70 minutes, no failure
	- sustained flaming on unexposed face	70 minutes, no failure
	<b>Insulation (I)</b>	
	- average temperature	15 minutes
	- maximum temperature	13 minutes
	<b>Radiation (W)</b>	
	- reach 15 kW.m <sup>-2</sup>	46 minutes

### 4. CLASSIFICATION AND FIELD OF APPLICATION

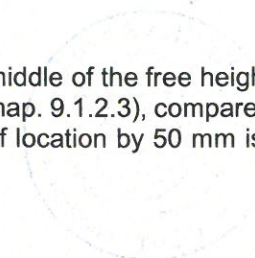
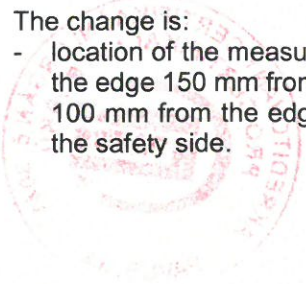
#### 4.1. Reference

This classification has been carried out in accordance with ČSN EN 13501-2: 2017 cl. 7.

The test was carried out according to ČSN EN 1364-1:2000; test procedures and conditions met the requirements of ČSN EN 1364-1:2017.

The change is:

- location of the measuring point to obtain the maximum temperature in the middle of the free height of the edge 150 mm from the edge exp. sample (see ČSN EN 1364-1: 2017, chap. 9.1.2.3), compared to 100 mm from the edge according to the standard from 2000, the change of location by 50 mm is on the safety side.



#### 4.2. Classification

This element has been classified according to the following combinations of performance parameters and classes.

**E 60 / EW 30 / EW 45<sup>\*)</sup>**

<sup>\*)</sup>The value of EW 45 was determined in accordance with ČSN EN 13501-2: 2017, national note NP4).

#### 4.3. Field of direct application

The fire resistance test results can be applied directly to similar construction – in accordance with ČSN EN 13501-2+A1 and ČSN EN 1364-1 – where one or more 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 can be increased for classification only E 60 / EW 20;
- using of any other supporting construction within the same type (low density rigid), that has a greater fire resistance (higher thickness, density).

### 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).

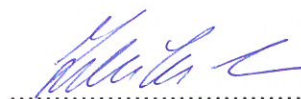
The sponsor may request the issuing authority to review the influence of changes on the classification validity.

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

Elaborated by:

Checked by:

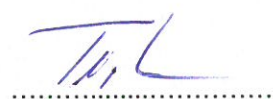
Approved by:



Ing. Zdeňka STARÁ



Ing. Magdaléna CHARVÁTOVÁ, Ph.D.



Ing. Jan TRIPES



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