



TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.

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Order N° Z080150247

CLASSIFICATION REPORT

N° PKO-16-005/AO 204

(Revalidation PKO-11-014/AO 204)

For the product:

Non-loadbearing fire-separating walls

according to ČSN EN 13501-2 + A1: 2010, cl. 7.5.2

Product name and type:

Wall 80 mm thick from glass blocks type

"Seves Glassblock 1919/8 30F"

Carried out on the basis of:

Test Report

(3701/5955)-Mp of 2005-08-15

and of the Legal Document

Registration number: **080-020105**

Customer: **Vitrablok, s.r.o.**

Bílinská 42

419 14 Duchcov

Normative documents:

(ČSN) EN 1364-1: Fire resistance tests for non-loadbearing elements – Part 1: Walls

The document contains: 4 text pages

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1. Introduction

- 1.1. This Classification Report determines the classification of the given element in conformity with procedures given in ČSN EN 13501-2+A1.
- 1.2. This Classification Report contains 4 text pages and may be used as a whole only.

2. Detailed information on the classified element

2.1. General

The non-loadbearing wall 80 mm thick from glass blocks "Seves Glassblock 1919/8 30F" type has been defined as an element of a non-loadbearing construction. It shall fulfil the function of a fire-separating construction, regarding the fire characteristics of properties, given in clause 5 of (ČSN) EN 13501-2+A1.

2.2. Description

Elemental information

The wall construction consists of glass blocks "Seves Glassblock 1919/8 30F" type 80 mm thick (according to DIN EN 1051-1:2003-04); joints and facing is from a thermal insulating mortar.

Dimensions of the test specimen were 2960 mm × 2960 mm (width × height).

Construction of the glass blocks

The dimensions of glass blocks with the trade name "Seves Glassblock 1919/8 30F" are 190 mm × 190 mm × 80 mm. Block wall is 20 mm thick, the edge is 12 mm wide. Against the wall edges is the block edge set-off by 3 mm, thus creating a shallow mortar pocket (see drawings – Annex N° 3 of the Test Report (3701/5955)-Mp of 2005-08-15).

In the middle of the glass block is with "PACTAN 3040" adhesive (supplier: Heidelberger Baustofftechnik, Leimen) glued a coated flat float glass "PLANITHERM" (supplier: Vegla, Aachen) 4 mm thick (see Annex N° 3 of the Test Report (3701/5955)-Mp of 2005-08-15).

Joints and facing

In joints and facing has been used the "LM21" thermally insulating mortar.

Joints between the blocks are approximately 15 mm wide. The infill is on both sides set-off approximately by 2 mm against the glass surface.

The facing is along the whole perimeter approx. 55 mm wide and 80 mm thick.

Reinforcement

The facing is reinforced with 2 steel bars \varnothing 8 mm (steel BSt 500 S). The reinforcement is installed at faces of the facing.

Each horizontal joint between the blocks is reinforced with one steel bar \varnothing 6 mm (steel BSt 500 S) at each wall face. Every second vertical joint between the blocks is reinforced with one steel bar \varnothing 6 mm (steel BSt 500 S), extending into the facing reinforcement; rods are installed at external and internal wall face alternately, see Annex N° 2 of the Test Report (3701/5955)-Mp of 2005-08-15.

The reinforcement rods are at the crossing points not tied together.

Installation in the brickwork and transport hooks

For easy transport are on the top of each \varnothing 10 mm reinforcing bar (steel BSt 500 S) welded two threaded sleeves M12.

Fixing in the rigid supporting construction (thickness, density and fire resistance at least identical with the tested construction) is provided in the top part with steel mounting plates 50 mm × 8 mm × 200 mm, anchored by two hexagonal screws M10 × 35 mm, screwed into M12 threaded sleeves. At the ends is the fixing provided with two Fischer S 12 anchors and two 100 long hexagonal screws Ø 10 mm, see Annex N° 1 of the Test Report (3701/5955)-Mp of 2005-08-15.

Joint between the brickwork (rigid supporting construction) and facing may be supplementary sealed with mineral wool (reaction to fire A1).

Detailed description of the product, drawings inclusive, is given in the Test Report (3701/5955)-Mp of 2005-08-15.

3. Test Reports and test results used for this Classification

3.1. Test Reports / Extended Application Reports

Laboratory name Address Accreditation number	Order party of the Test Report	Report number Date of issue	Test procedure
iBMB MPA TU Braunschweig Germany DAP-PL-2204.01, DAP-PL-2204.02, DAP-PL-2204.03, DAP-PL-2204.04, DAP-PL-2204.05	SEVES S.p.A. Via Reginaldo Giuliani – 360 50141 Firenze , Italia	(3701/5955)-Mp of 2005-08-15	DIN EN 1364-1

Stress conditions and test results

Test procedure Report number Date of issue	Parameter	
(3701/5955)-Mp of 2005-08-15	Thermal stress Stress direction Tested wall dimensions Supporting conditions	Standard time/temperature curve Wall of symmetrical construction 2960 mm (width) x 2960 mm (height) One free side edge of the test wall
	Integrity (E) - Cotton pad - Gap gauges - Continuous combustion	36 minutes 36 minutes 36minutes
	Insulation (I) - Average temperature - Maximum temperature	36 minutes 36 minutes
	Radiation (W) < 5 kW.m⁻²	36 minutes

4. Classification and the field of application

4.1 Reference

This Classification was carried out in accordance with ČSN EN 13501-2+A1, clause 7.

4.2. Classification

This element has been classified according to the following parameters of properties and fire resistance classes.

EI 30/ EW 30

4.3. Field of application

Fire test results of the specimen – Non-loadbearing wall 80 mm thick from glass blocks "Seves 1919/8 30 F" type may be directly applied in compliance with ČSN EN 13501-2+A1 and ČSN EN 1364-1 to identical constructions, where one or more modifications given below have been done, provided that the construction with its rigidity and stability further meets the relevant standard:

- a) Decrease of glass blocks dimensions, but not of thickness;
- b) Change of the ratio of glass blocks sides, provided their maximum dimension and their surface will not be increased;
- c) Decrease of fixing centres distance;
- d) Change of installation angle up to 10° inclination from the vertical;

The height of the wall shall not be increased in comparison with the test (according to ČSN EN 1364-1).

The width of the wall shall not be increased in comparison with the test (according to ČSN EN 1364-1 and (3701/5955)-Mp of 2005-08-15).

5. Validity of the Classification Report

This Classification Report is valid up to **2021-01-21**, provided the product or standard provisions will not be changed.

Declaration:

This Classification Report is valid as a whole only, while each and every page shall be provided with the Classification Report identification number, page number from the total number of pages, and with the compiler stamp. This Classification Report does not substitute either the type approval or the product certification.

Legally valid is the Czech version of the Classification Report.



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Praha, 2016-01-21