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No. 3041

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CLASSIFICATION REPORT OF FIRE RESISTANCE

Object of classification: *Non-loadbearing wall in accordance with
ČSN EN 13501-2+A1:2010, cl. 7 5.2*

Identification number:

PK2-05-14-902-E-1

**Name and type of
element:**

*Non-loadbearing interior glazed wall Pyrobel EI60/25
in a wooden frame*

Sponsor:

AGC Glass Europe
4, Avenue Jean Monnet
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Belgium

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. 353/2016

Prosecká 412/74
190 00 PRAGUE 9

Order No. 514031/Z220140082

Date of issue: 2016-06-29

Copies in total: 4

Copy number: 1

Page in total: 6

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.
- 1.2. This classification report consists of 6 pages and it may only be used or reproduced in its entirety.
- 1.3. This Classification Report supersedes and repeals the Classification Report No. PK2-02-14-902-A-0 of 2014-04-02. Compared to the previous version, glass dimensions are corrected.

2. DETAILED INFORMATION OF CLASSIFIED PRODUCT

2.1. General

The subject of classification report is *Non-loadbearing interior glazed wall Pyrobel EI60/25 in a wooden frame* 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

Wooden frame, type Meranti, is assembled of perimeter profiles 95 x 60 mm and inner profiles 95 x 100 mm. Overall dimension of specimen is 2950 x 2776 mm (width x height). Test specimen is divided into two parts with vertical joint. Frames are connected together by using steel screws. Joint between frames is covered by wooden bar with dimension 44 x 12 mm which is fixed to frames by steel screws.

Glazing is made of fire-resistant glass boards from Pyrobel EI60/25, thickness 25 mm. Dimensions of the boards are (height x width): 1) - 1800 x 542 mm; 2) - 1800 x 800 mm; 3) - 844 x 1398 mm; 4) - 2700 x 1400 mm. Boards are bordered with wooden profile, type Meranti, with dimension 27 x 30 mm. Bars are connected to the frame by screws. Glazed boards No. 1, 2 and 3 have bars on the unexposed side of fire and glazed board No. 4 has bars on the exposed side of fire. Glazing is fixed in vertical direction by distance pad Promatec H, dimension 70 x 25 x 5 mm. In horizontal direction is fixing by both-side intumescent seal Vito Vorlegeband, dimension 15 x 5 mm and the joint is closed by silicon Dow Corning.

Supporting structure is from lightweight concrete blocks with thickness 250 mm.

Description and drawings of the glazed wall is mentioned in Test report No. Pr-01-02.053, dated 2001-06-06.

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

3.1. Test reports / extended application reports

Name of the lab Address Accreditation number	Sponsor name of document	Document number Date of issue	Test standard
PAVUS a.s. Testing lab in Veselí nad Lužnicí ATL No. 1026	Glaverbel Parc Industriel Zone C B-7180 Seneffe Belgium	Pr-01-02.053 2001-06-06	ČSN EN 1364-1
PAVUS, a.s. Prague 9 Czech republic AO 216	AGC Glass Europe 4, Avenue Jean Monnet B-1348 Louvain-la- Neuve Belgium	PRA2-05-14-902-E-1 2016-06-29	ČSN EN 15254-4+A1

3.2. Stress conditions and test results

Test method Test report number Date of issue	Parameter	
ČSN EN 1364-1 Pr-01-02.053 2001-06-06	Thermal exposure Number of exposed sides Direction of loading Dimension of tested specimen (width x height) Dimension of glazing (height x width)	standard curve time / temperature 1 symmetrical structure 2950 x 2776 mm 1800 x 542 mm; 1800 x 800 mm; 844 x 1398 mm; 2700 x 1400 mm
	Type of glazing Type of frame Supporting structure	Pyrobel EI60/25 wooden - Meranti from lightweight concrete blocks of thickness 250 mm, one vertical free edge
ČSN EN 15254-4+A1 PRA2-05-14-902-E-1 2016-06-29	Integrity (E)	77 minutes, no failure
	Insulation (I) - average temperature - maximum temperature	77 minutes, no failure 76 minutes
ČSN EN 15254-4+A1 PRA2-05-14-902-E-1 2016-06-29	It solves changes of parameters and classification conditions for product non-loadbearing interior glazed wall Pyrobel EI60/25 in wooden frame.	

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1. Reference

This classification has been carried out in accordance with clause 7.5.2 of ČSN EN 13501-2+A1:2010.

4.2. Classification

Non-loadbearing interior glazed wall Pyrobel EI60/25 in a wooden frame is classified in accordance with the following combinations of attribute parameters and fire resistance classes:

EI 60

E 60

achieved prolonged classification time

4.3. Direct field of application

The results of fire resistance tests are directly applicable *Non-loadbearing interior glazed wall Pyrobel EI60/25 in a wooden frame* and on similar structures in accordance with ČSN EN 13501-2+A1:2010 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:

- decrease in linear dimensions of panes
- change in pane proportions providing the biggest dimension of pane and its area isn't increased
- decrease in distance of fixing mullion/ transom
- decrease in distance of fixing centres
- increase in dimensions of frame elements
- change in angle of mounting up to 10 degrees from the vertical

4.4. Extended field of application

Extended field of application is work out in report of extended application of fire resistance No. PRA2-05-14-902-E-1, dated 2016-06-29.

4.4.1 Specific changes to glazing system

- it is not possible to use alternative fire resistant glass without additional test
- increase in height and width of individual glass pane is possible up to 20 % because there was achieved prolonged classification time.
- increase in area of individual glass pane is possible up to 21 % because there was achieved prolonged classification time.
- circular, triangular or four-sided shapes shall be cut from within the extended rectangular pane size. All other non-rectangular shapes shall only be cut from the original sized rectangular pane in the reference test, and cannot be extended further.
- changes of side proportions of rectangular panes are allowed providing new extended panes confirm enlargement dimension mentioned above. Changes of pane side proportion, rotation of pane from portrait to landscape and from landscape to portrait is possible providing:
 - maximal tested width and height aren't exceed
 - area of new pane is smaller than: $0,5 * (A_{\text{portrait}} + A_{\text{landscape}})$

- increase of pane dimensions is possible if the frame manufacturer should issue confirmation that the framing system is able to support the additional weight due to the increase of pane area.
- change in type of material is not allowed (i.e. from wooden to metal)
- change in type of wood is possible providing calculation in accordance with ČSN EN 1995-1-2 or by reference test. Fire resistance parameters have to be equal or better than parameters of tested wood.
- it is not allowed to change manner of mounting (screwed bars shall not be mounted by pins or clips without additional tests)
- interchange from oblique or cut profiles to plane profiles with the same height is possible without additional test for fire resistant glazed elements with classification EI
- it is not allowed to use alternative glazed material without additional tests
- it is possible to add decorative finishes of glazing bars with reaction to fire A1 or A2 in accordance with ČSN EN 13501-1+A1. Additionally it has to be declared that fire resistance parameters will not be influenced

4.4.2 Specific changes to framing system

- change of material type of frame is not allowed
- change in wooden type is allowed. Tested timber should be replaced by timber with equal or higher density and / or equal or higher moisture and with equal or lower char rate and identical profile.
- increase in thickness of frame is allowed
- laminated timber frames shall not be used
- junction of frame shall be used only in accordance with tested details. It was tested:
 - Type B: three panes coming together at one point, only double mullion, including pane height 2700 mm
 - Type C: three panes coming together at one point, including pane width 1378 mm
 - Type E: corner junction
- it is possible to add decorative finishes with reaction to fire A1 or A2 in accordance with ČSN EN 13501-1+A1. Additionally it has to be declared that fire resistance parameters will not be influenced
- it is possible to use rigid supporting structure with equal or better thickness and density

4.4.3 Specific changes to glazed element

- increase in height and width of individual glass pane is possible up to 20 % because there was achieved prolonged classification time
- increase in area of individual glass pane is possible up to 21 % because there was achieved prolonged classification time
- circular, triangular or four-sided shapes shall be cut from within the extended rectangular pane size. All other non-rectangular shapes shall only be cut from the original sized rectangular pane in the reference test, and cannot be extended further
- changes of side proportion of rectangular panes are allowed providing new extended panes confirm enlargement dimension mentioned above
- rectangular fire resistant glazed element tested with one vertical edge without restraint, a wider construction achieved by replicating the fire resistant glazed element as tested, by adding more units of the same fire resistant glazed element side by side, is allowed for E and EI classified elements

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.

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