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Fire resistance classification report with accordance PN-EN 13501-2:2023-09

No. 3028_1023/K/2

Sponsor:

FAKRO Sp. z o.o.

Węgierska 144a, 33-300 Nowy Sącz

NIP: 734-100-14-87

Date of issue: 19.05.2025



CLASSIFICATION OF FIRE RESISTANCE IN ACCORDANCE WITH PN-EN 13501-2:2023-09

Sponsor:	FAKRO Sp. z o.o. Węgierska 144a, 33-300 Nowy Sącz NIP: 734-100-14-87
Prepared by:	CERTBUD Sp. z o.o. Testing and Calibration Laboratories Bukowiecka 92, 03-893 Warsaw
Product name:	Single-leaf wooden door DWF60
Classification report No:	3028_1023/K/2
Issue number:	2 (replaced 3028_1023/K/1)
Date of issue:	19.05.2025

This classification report consists of 9 pages and may only be used or reproduced in its entirety.

1 Introduction

This classification report defines the resistance to fire classification assigned single-leaf wooden door DWF60 in accordance with the procedures given in PN-EN 13501-2:2023-09.

2 Details of classified product

2.1 General

The element: Single-leaf wooden door DWF60 is defined as an internal fire resistance door.

2.2 Description of the specimen

The single-leaf wooden door DWF60 and their construction are shortly described below. The tested doors are described in detail in the relevant test reports given in section 3.1.

2.2.1 Number of leaves

It is permissible to use single-leaf door.
It is not allowed to use double leaf door.

2.2.2 Changing the dimensions of the leaf (height, width, area)

- Maximum dimension door leaf:
 - Height : 1170 mm,
 - Width: 966 mm,
 - Area: 1,10 m²,
 - Thickness: 86 mm.
- It is permissible to decrease the height, width and area the door leaf.

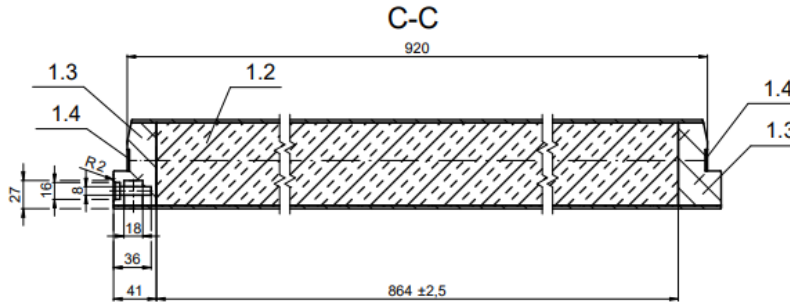
2.2.3 Changing thickness of the leaves

- It is permissible to increase thickness of the door leaf, under the condition the weight is not greater than 30 kg,
- It is not allowed to decrease thickness of the door leaf (the minimum thickness is 85 mm).

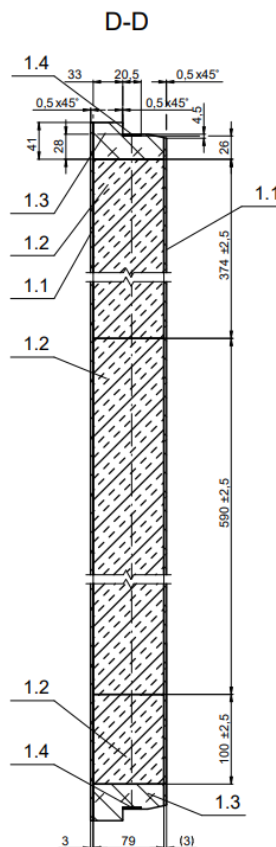
2.2.4 Construction of the door leaf

It is permissible construction the door leaf consists of a glued pine boards an average density of 520 kg/m³, which are glued in corners by the Jowacoll glue. Leaf filling consists of three part of the rock wool 170 kg/m³ which thickness is 79 mm and dimensions are: 100 x 864 mm, 590 x 864 mm and 374 x 864 mm. From the side of both surfaces of the leaf, the HDF boards 860±20 kg/m³, thickness 3 mm, are glued by the Jowacoll glue.

Drawing no. 1: Horizontal cross- section of the door leaf



Drawing no. 2: Vertical cross- section of the door leaf

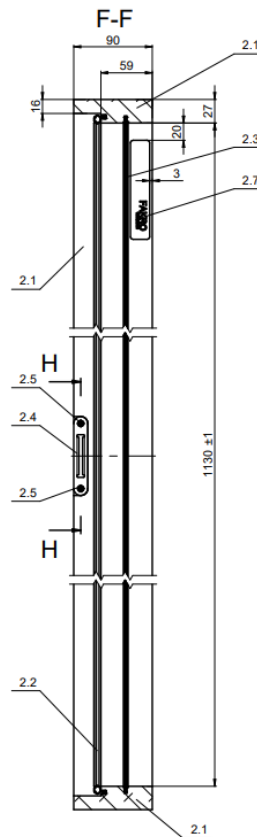


● **Elements of the leaf:**

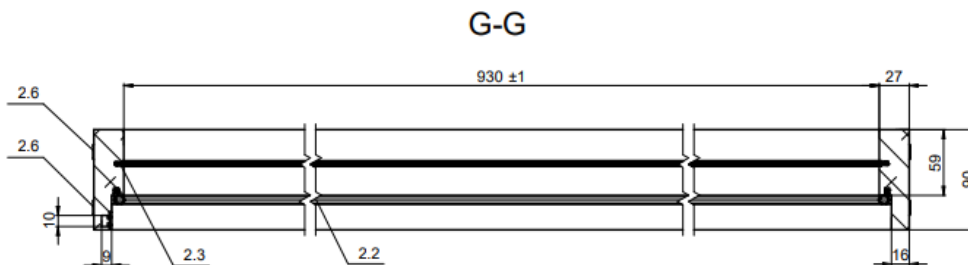
- 1.1 HDR board (producer, density, thickness): KRONOSPAN, 860±20 kg/m³, 3 mm
- 1.2 Rock wool (producer, type, density, thickness): ROCKWOOL, RW-CEE-0130, 170 kg/m³, 79 mm
- 1.3 Board side (material, average density): pine wood, 520 kg/m³
- 1.4 Intumescent seal (producer, type, material, dimension): Promat, Promaseal-PL-SK, graphite, 2 mm x 20 mm
- 1.5 Water glue (producer, type): Jowat, 103.15

2.2.5 Construction of the door frame

Drawing no. 3: Vertical cross- section



Drawing no. 4: Horizontal cross- section



- **Elements of the frame:**

- 2.1 Door frame (material): Glued pine wood an average density of 520 kg/m³
- 2.2 Rebate seal (producer, type, material)- AiB, Fakro 12128ZZ, SEBS
- 2.3 Rebate seal (producer, type, material)- Plastarte, Fakro 18375ZZ, Santoprene 8201-60 + Santoprene 201-87
- 2.4 Strike plate (producer, material)- MET-PLAST, galvanized steel
- 2.5 Screw fixing the strike plate (producer, material, type, dimension)- Solvera, galvanized steel, PZ2, 3,5 mm x 16 mm
- 2.6 Steel staple (producer, material, type, dimension)- Bizea, steel, 10P13650, 14 mm x 35 mm
- 2.7 Nameplate (material): aluminium

Masking strips made of glued pine wood with an average density of 520 kg/m³ are attached to the door frame around the entire perimeter with stud which dimension is 1,6 mm x 30mm.

2.2.6 Decorative panel

- It is permissible decorative panel, made of: timber veneer, laminate, plastic, cloth, leather on the front side of the door leaf, which thickness cannot be greater than 3 mm,
- It is not allowed to use the metal as decorative panel,
- It is not allowed to use decorative panel on the door leaf edges.

2.2.7 Rebate seal

- It is permissible use rebate seals on door frame periphery: manufacturer Plastarte, type Fakro 18375ZZ (closer hinge side) and manufacturer AiB, type Fakro 12128ZZ (closer opposite side to hinge side).

2.2.8 Hardware

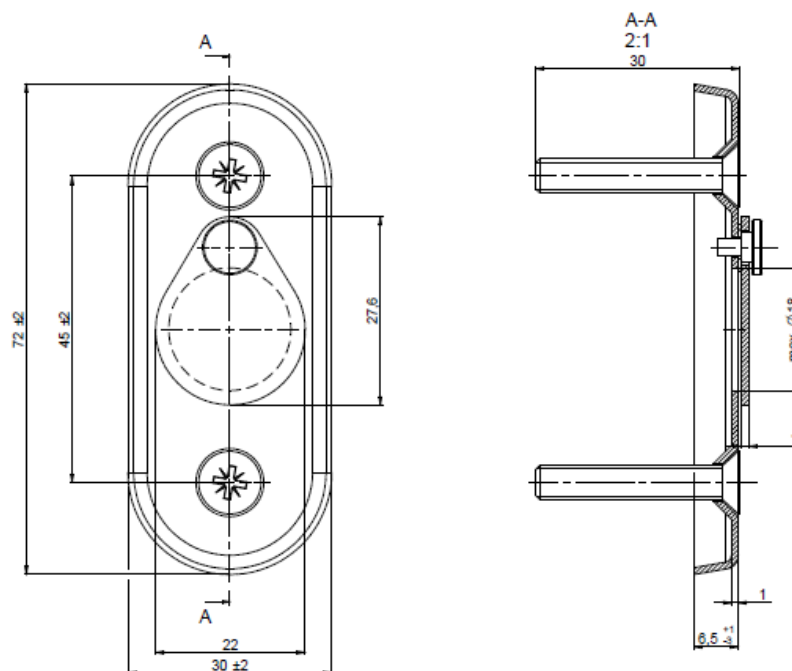
2.2.8.1 Lock/Strike plate

- It is permissible to use one point lock manufacturer MET-PLAST, type Fakro 21047A0 (MG230),
- It is permissible to use strike plate manufacturer MET-PLAST, type Fakro 19241A0 (MG231), which is installation to the door frame by two screws, which dimension is 3,5 x 16 mm.

2.2.8.2 Handle

- It is permissible to use handle (opening and closing side), manufacturer Visberg, type KA10 white PL00L01,
- It is permissible to remove handle under the condition, must to save the lock and must to applicate plug which made of steel (according of drawing no. 5), so that the hole for the handle is covered.

Drawing no. 5: The plug



2.2.8.3 Quantity of the hinges

- It is permissible to use minimum two one-axis pin 3-wings hinges , manufacturer OTLAV, type CI 300 130 H0 03,
- Permissible hinges spacing:
 - maximum spacing from the top of the leaf to the top of the top hinge 55 mm,
 - maximum spacing from the bottom edge of the leaf to the bottom of the bottom hinge 56 mm.

2.2.9 Supporting construction

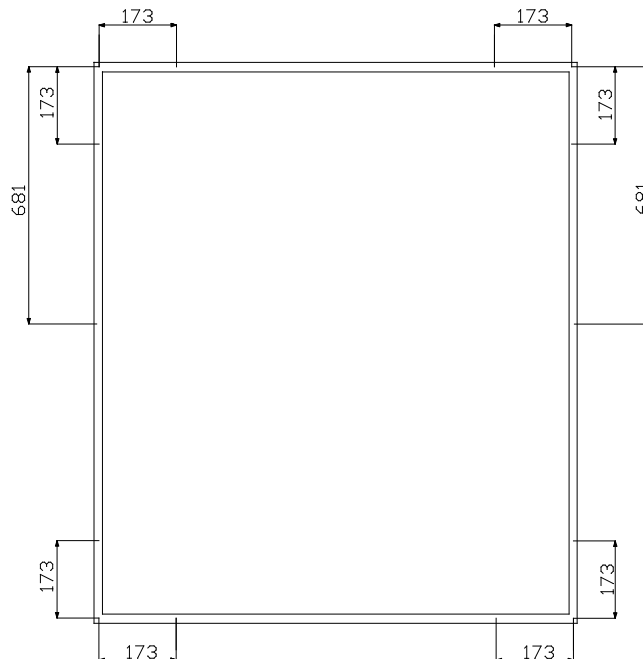
2.2.9.1 Type of the supporting construction

- It is permissible to install the door in standard low rigid construction with minimum density of 600 kg/m³ and thickness of 180 mm and in flexible supporting construction with steel or timber studs and with a minimum fire resistance class EI60.

2.2.9.2 Type fixings

- It is permissible to install door to the supporting construction by minimum 10 fixings: 3 pieces each for vertical frame and 2 pieces each for the horizontal frame (minimum fixings dimension is 5 x 80 mm).
- Maximum dimension between fixings is accordance with drawing below,

Drawing no. 6: Maximum dimension between fixings:



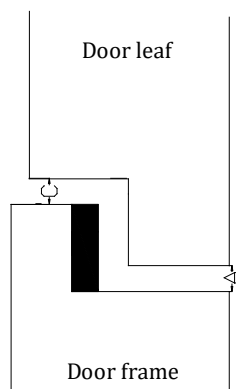
- In case of increase dimension between fixings must to applicate additional fixings.

2.2.9.3 Sealing the gap between the frame and the supporting construction

It is permissible to sealing the gap between the frame and the supporting construction by the rock wool and oraz sealing compound Polylack KG.

2.2.9.4 Maximum gaps size

Drawing no. 7: Door leaf and door frame section



Maximum gaps size between door leaf, door frame and threshold gap for gap A (opening side):

- Hinge gap: 6,0 mm,
- Top/lintel: 6,5 mm,
- Lock hinge: 5,5 mm,
- Threshold: 5,5 mm.

Maximum gaps size between door leaf, door frame and threshold gap for gap C (closing side):

- Hinge gap: 12,5 mm,
- Top/lintel gap: 12,5 mm,
- Lock hinge: 12,5 mm,
- Threshold: 10,5 mm.

3 Test reports/ extended application reports and test results in support of the classification

3.1 Test reports/ extended application reports

Name of laboratory	Name of sponsor	Test report ref. no.	Test standard and date
Testing and Calibration Laboratories „CERTBUD” Sp. z o.o. Bukowiecka 92 03-893 Warsaw	FAKRO Sp. z o.o. Węgierska 144a, 33-300 Nowy Sącz NIP: 734-100-14-87	3028_890/S5A/1	PN-EN 1363-1:2020-07 PN-EN 1634-1+A1:2018-03 Test date: 14.07.2023
Testing and Calibration Laboratories „CERTBUD” Sp. z o.o. Bukowiecka 92 03-893 Warsaw	FAKRO Sp. z o.o. Węgierska 144a, 33-300 Nowy Sącz NIP: 734-100-14-87	3028_1023/R/2	PN-EN 1634-1+A1:2018-03 PN-EN 15269-3:2023-05

3.2 The achieved test results

Report ref. no.	Parameter	Result
3028_890/S5A/1 (single-leaf door opening to the inside of the furnace) 13-07-2023/3028_890-1	Supporting construction	Rigid supporting construction with low density 600 kg/m ³ and thickness 180 mm
	Integrity E	65 minutes
	Insulation I ₁	65 minutes
	Insulation I ₂	65 minutes
	Radiation	Not applicable
	Self-closing	Not maintained
	Overrun	EI ₁ 60 - 5 minutes EI ₂ 60 - 5 minutes
	Effective rebate depth	High
3028_890/S5A/1 (single-leaf door opening to the outside of the furnace) 13-07-2023/3028_890-2	Supporting construction	Rigid supporting construction with low density 600 kg/m ³ and thickness 180 mm
	Integrity E	70 minutes
	Insulation I ₁	70 minutes
	Insulation I ₂	70 minutes
	Radiation	Not applicable
	Self-closing	Not maintained
	Overrun	EI ₁ 60 - 10 minutes EI ₂ 60 - 10 minutes
	Effective rebate depth	Medium

4 Classification and field of application

4.1 References of classification

This classification has been carried out in accordance with point 7 of PN-EN 13501-2:2023-09.

4.1.1 Classification the object

The element: Single-leaf wooden door DWF60 is classified according to the example of the following combinations of performance parameters and classes as appropriate:

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r	G	K
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Fire resistance classification:

**EI₁ 15, EI₁ 20, EI₁ 30, EI₁ 45, EI₁ 60,
EI₂ 15, EI₂ 20, EI₂ 30, EI₂ 45, EI₂ 60,
EW 15, EW 20, EW 30, EW 45, EW 60,
E 15, E 20, E 30, E 45, E 60**

4.2 Field of application

The scope of application contained in this classification is based on standards PN-EN 1634-1+A1:2018-03, PN-EN 13501-2:2023-09 This classification is valid for the following end use applications.

5 Limitations

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

6 Expiry date

The classification remains valid until 19.05.2028 under the condition that the product described in the element classification, testing standards, classification standards, and extended standards shall remain unchanged.

SINGED



Maciej Seta

KIEROWNIK PROCESU

Laboratoria Badawcze i Wzorcujące

CERTBUD Sp. z o.o.

APPROVED

End of the report