# CERTBUD Sp. z o.o.

**00-543 Warszawa, ul. Mokotowska 46/8**
**tel: +48 535-733-933, +48 535-833-933, +48 881-616-887**
**e-mail: biuro@certyfikacja-certbud.pl**

## Testing and Calibration Laboratories

**Bukowiecka 92, 03-893 Warsaw**


# Classification of fire resistance in accordance with

# PN-EN 13501-2:2023-09

# nr 2075/C/2023/K/2

**Sponsor:**

**VITRINTEC Sp. z o.o.**

**Karola Olszewskiego 23, 25-663 Kielce**

**NIP (TIN): 959-196-70-51**

Date of issue: 07.04.2025

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

| | |
|---|---|
| **Sponsor:** | VITRINTEC Sp. z o.o.<br>ul. Karola Olszewskiego 23, 25-663 Kielce<br>NIP: 959-196-70-51 |
| **Prepared by:** | CERTBUD Sp. z o.o.<br>Testing and Calibration Laboratories<br>Bukowiecka 92, 03-893 Warszawa |
| **Product name:** | Drzwi CLASSIC FS |
| **Classification report no:** | 2075/C/2023/K/2 |
| **Issue number:** | 2 (replaced 2075/C/2023/K/1) |
| **Date of issue:** | 07.04.2025 |

This classification report consists of 20 pages and may only be used or reproduced in its entirety.

## 1 Introduction

This classification report specifies the fire resistance classification given to the element: CLASSIC FS doors, which was submitted in accordance with the procedures given in PN-EN 13501-2:2023-09.

## 2 Details of classified product

### 2.1 General

The element - CLASSIC FS doors are described in section 2.2. The tested structures are described in detail in the corresponding test reports given in section 3.

### 2.2 Description of door construction

CLASSIC FS doors and their construction are described below. The specific tested construction solutions are described in the test report contained in section 3.1.

### 2.2.1 Number of leaves

It is allowed to use single and double leaf doors.

### 2.2.2 Supporting construction and fixing method

The door can be installed in the following constructions:
In a standard flexible supporting construction in accordance with EN 1363-1:2020-07 section 7.2.2.4, with a minimum thickness of 100 mm:

- made of steel profiles with a width in the range 75 - 100 mm, filled with 50 mm thick mineral wool with a density in the range 50 - 60 kg/m$^3$ and covered on both sides with one or two layers of 12.5 mm thick GKF board.,
- made of steel profiles with a width in the range 75 - 100 mm, filled with 50 mm thick mineral wool with a density in the range 85 - 115 kg/m$^3$ and clad on both sides with two layers of 12.5 mm thick GKF board,
- made of steel profiles 75 - 100 mm wide, filled with 60 - 70 mm thick mineral wool with a density of 85 - 115 kg/m3 and covered on both sides with two layers of 15 mm thick GKF board.

In a standard rigid fixing construction in accordance with EN 1363-1:2020-07 section 7.2.2.2, with a minimum thickness of 240 mm and a minimum density of 600 kg/m$^3$:

The installation gap is filled with WURTH-FOAM FP fire-resistant polyurethane foam with a density of 1.9 g/cm$^3$.

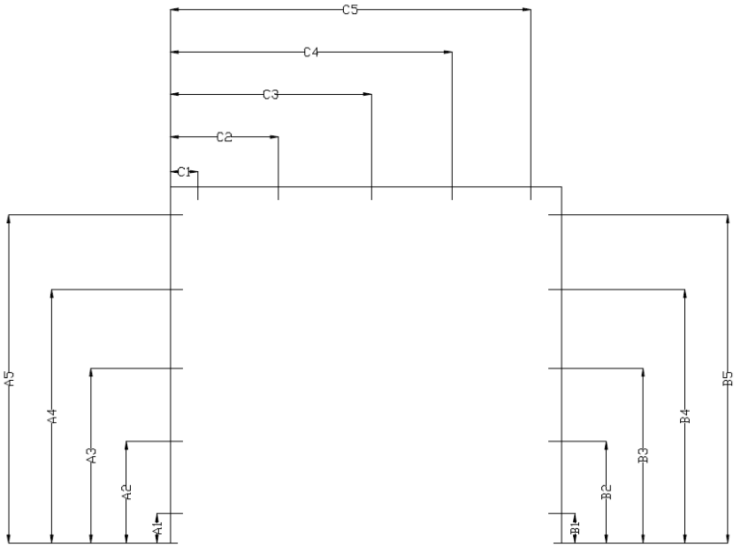
Two A2 steel rivets (TZ0410), measuring Ø4 x 10 mm, are fastened to the frame profiles on the attachment side with mounting plates (KWIE67), through which Wurth AMO III mounting screws, measuring a minimum of Ø7.5 x 82 mm, are inserted at a rate of 1 screw per mounting plate.
Minimum number of fixing screws:

- 5 on each frame stand;
- 5 in the frame lintel - for double doors;
- 3 in the frame lintel - for single leaf doors.

The number of elements fixing the frame to the supporting construction can be increased, but not reduced.

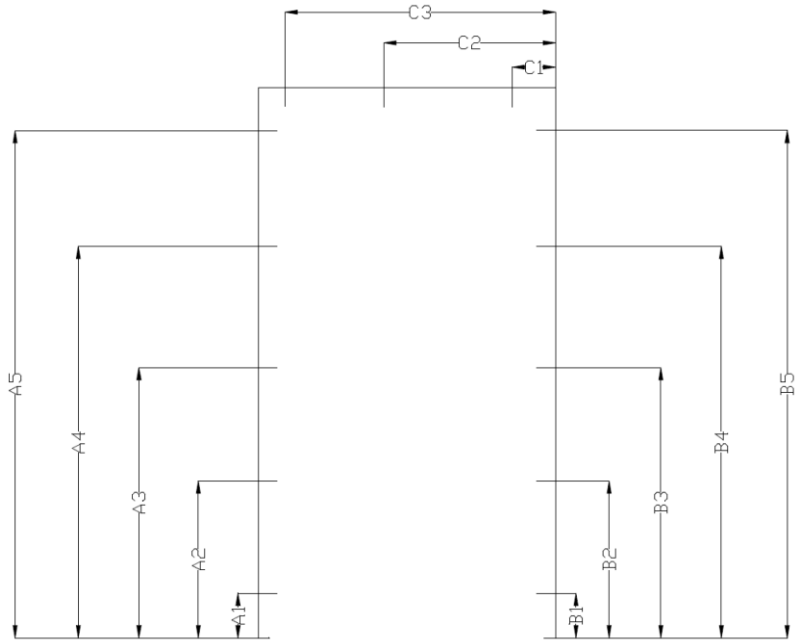
The maximum dimensions between fixings must be in accordance with the figures below.

Figure no 1: Maximum permitted spacing of frame fixings for double-leaf doors




| No. | A | B | C |
|---|---|---|---|
| 1 | 200 | 200 | 250 |
| 2 | 790 | 790 | 705 |
| 3 | 1380 | 1380 | 1165 |
| 4 | 1965 | 1965 | 1620 |
| 5 | 2530 | 2530 | 2070 |

Figure no 2: Maximum permitted spacing of frame fixings for single leaf door




| No. | A | B | C |
|---|---|---|---|
| 1 | 200 | 200 | 200 |
| 2 | 800 | 800 | 710 |
| 3 | 1400 | 1400 | 1215 |
| 4 | 2000 | 2000 | - |
| 5 | 2600 | 2600 | - |

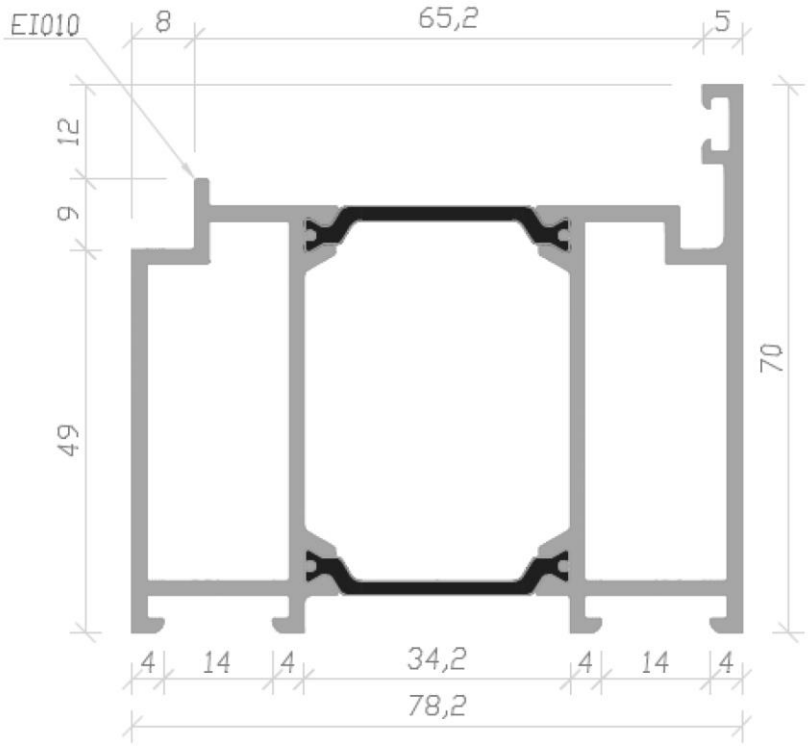
The distance between fixing screws can be reduced but not increased.
The maximum distance between fixing screws is 590 mm for double doors and 600 mm for single doors.

### 2.2.3 Frame construction

#### 2.2.3.1 Frame construction

The outer-size frame is constructed from profiles (EI010) made of AW6063 T5 aluminium alloy sections with a construction depth of 78.2 mm, separated by thermal breaks. The profiles have a three-chamber construction.

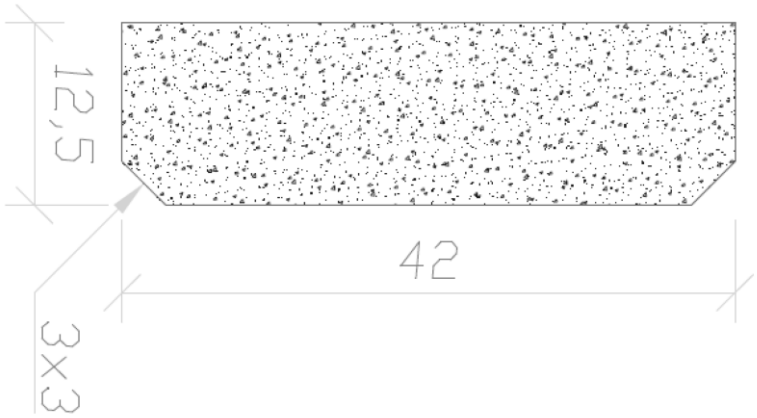
Figure no. 3: (EI010) – frame profile



### 2.2.3.2 Infill of frame profile

The central chamber contains 2 F-type GK board inserts (KG1242) with dimensions of 12.5 x 42 mm.

Figure no. 4: (KG1242) – insert of central profile chamber (EI010)




### 2.2.3.3 Connection method

The corners of the frame are cut at an angle of 45° and joined by crimping using corners (EI005) made of AW6063 T5 aluminium alloy and infill (KG104L) made of F-type GK boards, placed in the outer chambers of the profiles, two per joint.

Figure no. 5: Corner connection

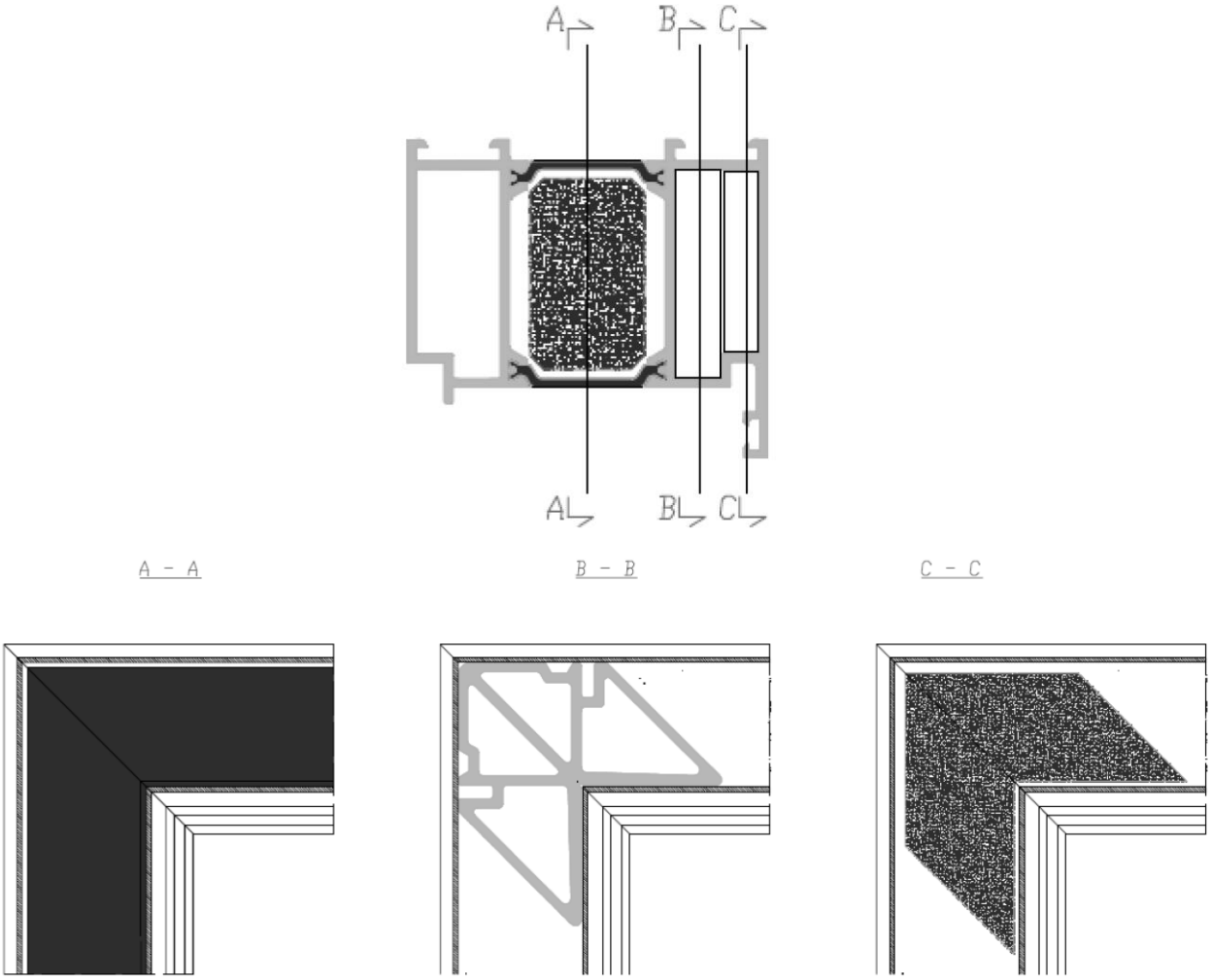


Figure no. 6: (EI005) – aluminium connector

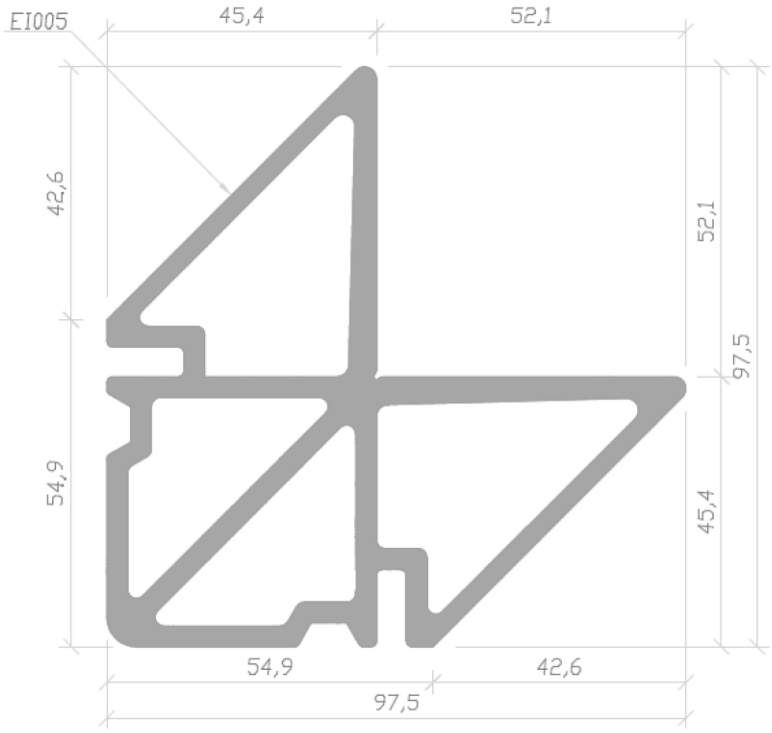
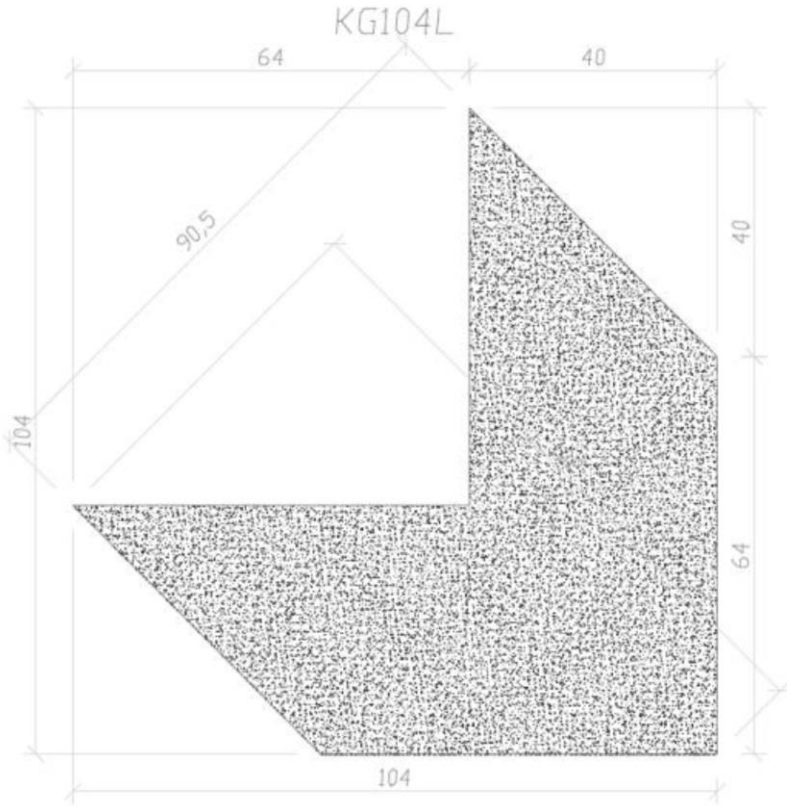



Figure no. 7: (KG104L) – infill

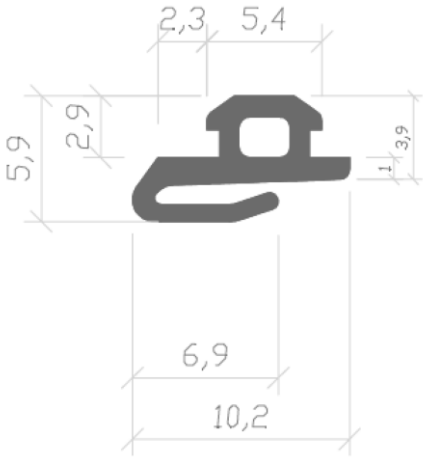



### 2.2.3.4 Gaskets

#### 2.2.3.4.1 Rebate gaskets

On the vertical stands and the lintel of the frame, rebate gaskets (KULA10) type KA-15 from manufacturer AiB are placed in specially shaped grooves. A drawing with dimensions is shown below.

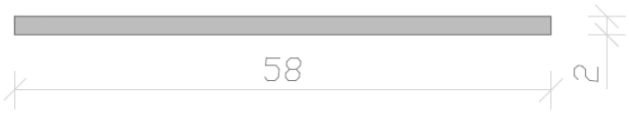
Figure no. 8: (KULA10) – rebate gasket




#### 2.2.3.4.2 Intumescent seal

A 2 x 58 mm intumescent seal (KF0258) type KERAFIX FXL 200 from the manufacturer ROLF KUHN is glued to the stand profiles and lintel from the inside.

Figure no. 9: (KF0258) – intumescent seal




### 2.2.4 Door leaf construction

#### 2.2.4.1 Door leaf dimensions

Maximum dimensions of a single door leaf:
- Leaf height: 2740 mm,
- Leaf width: 1414 mm,
- Area: 3,85 m$^2$,

Minimum dimensions limited by the minimum dimensions of the glazing given in section 2.2.5.

Maximum dimensions of a double door leaf:
- Leaf height: 2720 mm,
- Leaf width: 1114 mm,
- Area: 3,03 m$^2$,
- Total width of active and passive leaves: 2212 mm.

Minimum dimensions limited by the minimum dimensions of the glazing given in section 2.2.5.

#### 2.2.4.2 Door leaf construction

The leaf is made of AW6063 T5 aluminium alloy profiles with a construction depth of 78.2 mm, separated by thermal breaks. Hinge, lock and lintel frame profiles are made of 70 mm wide profiles (EI010). The threshold frame is made of a profile (EI001) 49 mm wide. It is necessary to use a supplementary profile (EI003) on both sides or a supplementary profile set consisting of a supplementary profile (NLR02502) installed on the hinge side and a supplementary profile (NLN05025) installed on the side opposite the hinges. Two intumescent gaskets with part number KF0222 are required when using the supplementary profile set.

Figure no. 10: (EI010) – hinge, lock and lintel frame profile

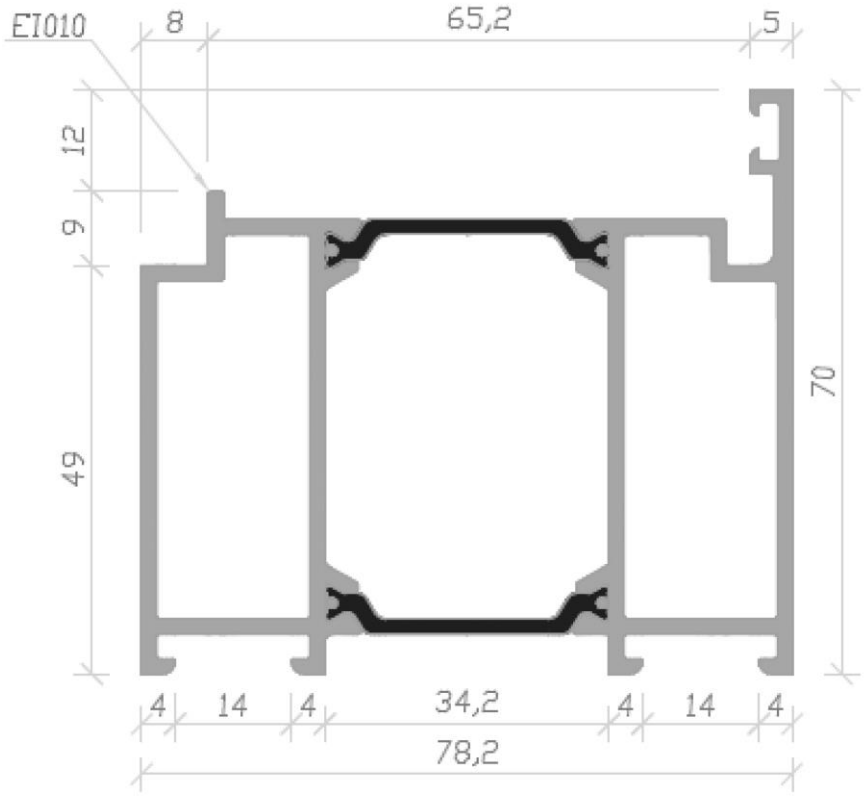



Figure no. 11: (EI001) – threshold frame profile

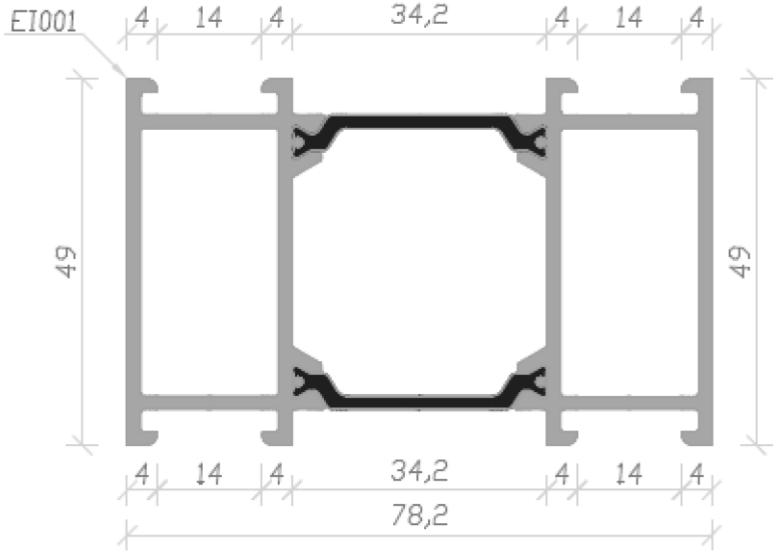



Figure no. 12: (EI003) – supplementary profile

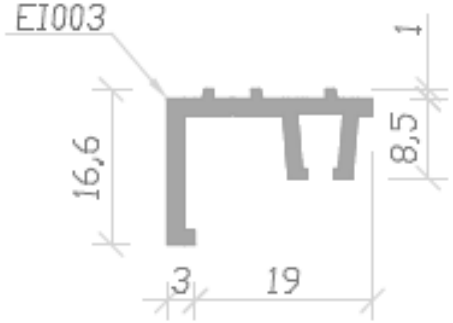


Figure no. 13: (NLR02502) – supplementary profile

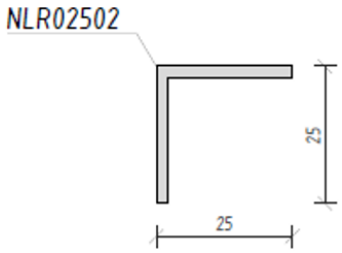
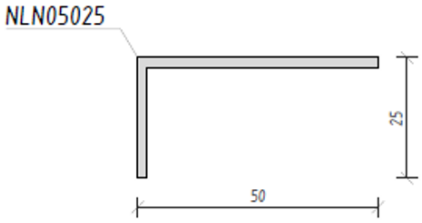



Figure no. 14: (NLN05025) – supplementary profile




### 2.2.4.3 Leaf profile infill

Two plasterboard infills (KG1242) measuring 12.5 x 42 mm are placed in the central profile chambers (EI010). 2 GKF (KG1232) infills measuring 12.5 x 32 mm are placed in the central profile chamber (EI001).

Figure no. 15: (KG1242) – Infill of central profile chamber (EI010)

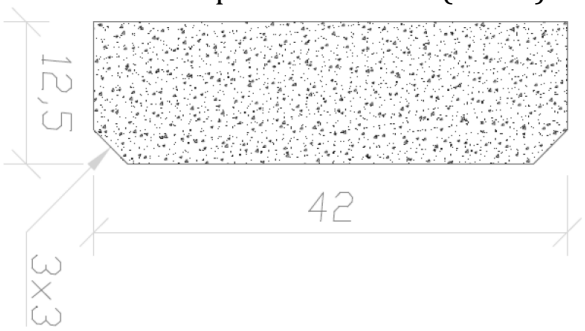
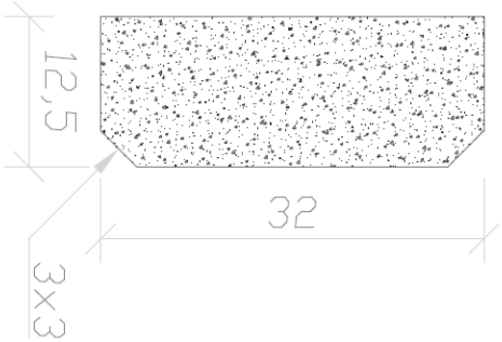



Figure no. 16: (KG1232) – Infill of central profile chamber (EI001)




### 2.2.4.4 Leaf surface coating

It is permissible to use paint on the frame and door leaf that does not affect the fire resistance of the door.

It is permissible to add decorative laminates and wood veneers with a maximum thickness of 1.5 mm on the surface, but not on the edges of the profiles.

### 2.2.4.5 Connection method

#### 2.2.4.5.1 Connection type „L”

The corners of the frame are cut at an angle of 45° and joined by crimping using corners (EI005) made of AW6063 T5 aluminium alloy and infill (KG104L) made of F-type GK boards, placed in the outer chambers of the profiles, two per joint., placed in the outer chambers of the profiles, two per joint.

Figure no. 17: Corner connection

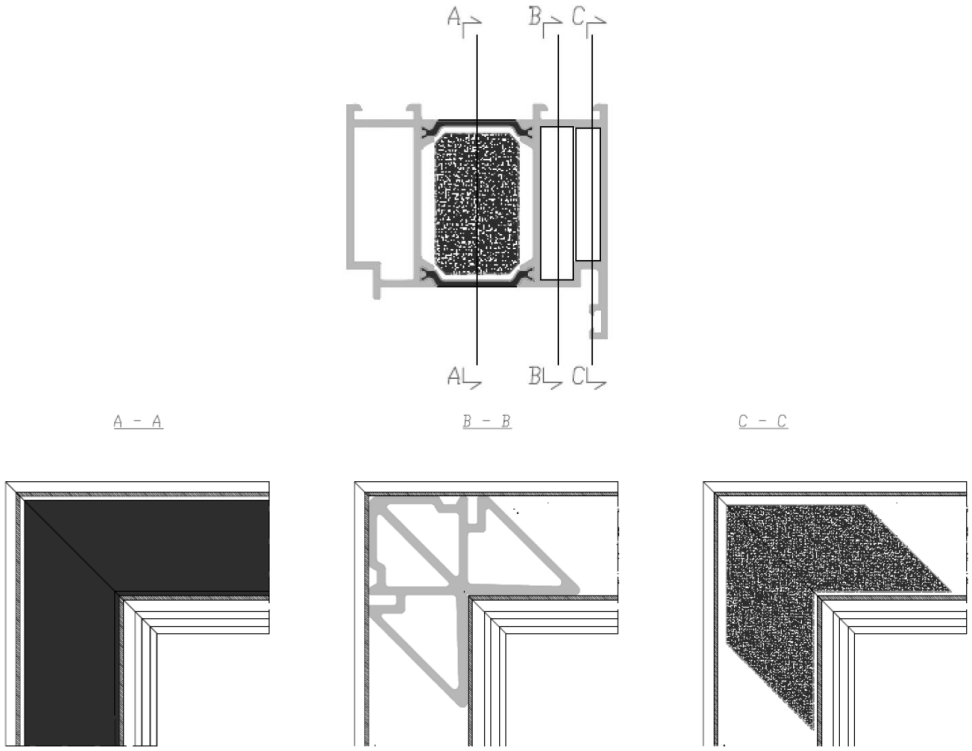



Figure no. 18: (EI005) – aluminium corner

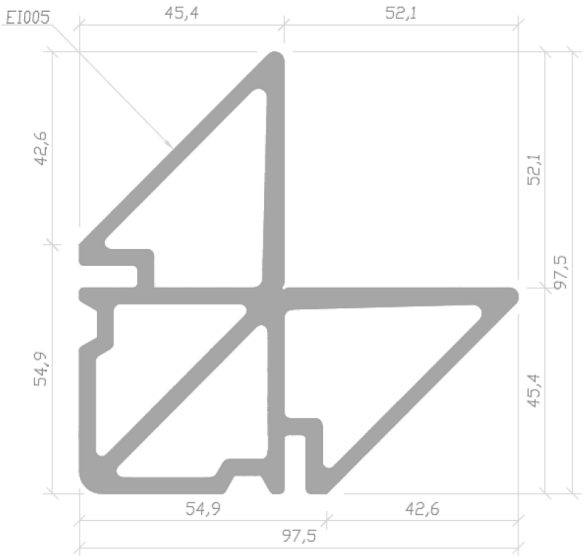
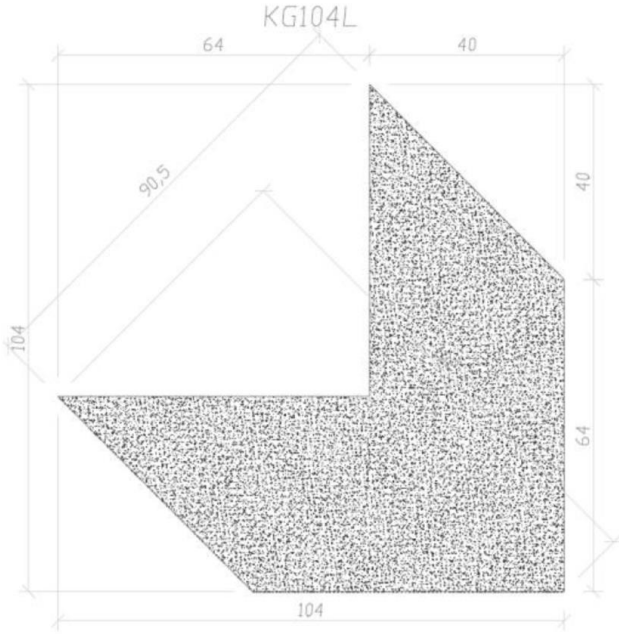


Figure no. 19: (KG104L) – corner infill




#### 2.2.4.5.2 Connection type „T"

The bottom corners of the leaf are connected by pinning using two connectors (KMEI06) screwed with screws (TS16M5) Ø5 x 16 mm (one screw per connector). The connectors are screwed into the outer chambers of the stand profiles (EI010), onto which the threshold frame profile (EI001) is slipped. The connection is pinned using two dowels (TC0106-OA2).

Figure no. 20: Corner connection

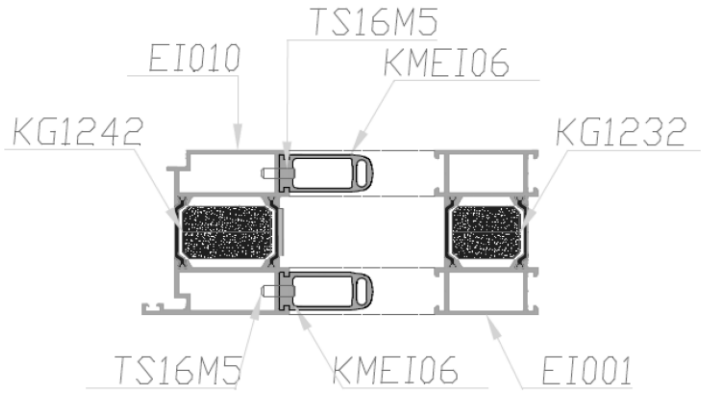



Figure no. 21: (KMEI06) – connector type „T"

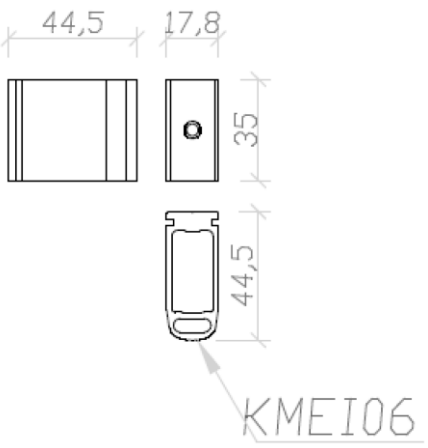
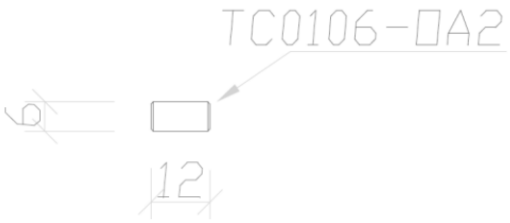


Figure no. 22: (TC0106-OA2) – pin for connection type „T"

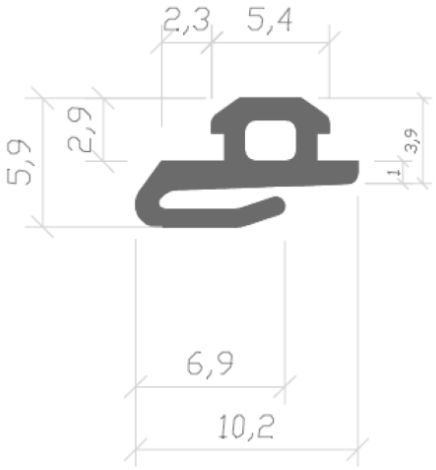



#### 2.2.4.6 Gaskets

##### 2.2.4.6.1 Rebate gasket

On the vertical stands and the lintel of the leaf, rebate gaskets (KULA10) type KA-15 from manufacturer AiB are placed in specially shaped grooves.

Figure no. 23: (KULA10) – rebate gasket




##### 2.2.4.6.2 Intumescent seal

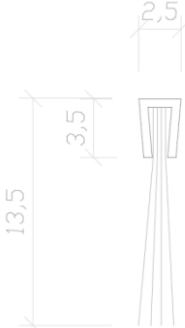
A 2 x 58 mm intumescent seal (KF0258) type KERAFIX FXL 200 from the manufacturer ROLF KUHN is glued to the stand profiles and lintel from the outside.

Figure no. 24: (KF0258) – intumescent seal


##### 2.2.4.6.3 Brush seal

Two brush gaskets (KMSM05) type 5 from the manufacturer Industrie Bursten are placed on the supplementary profile (EI003) located on the threshold edge of the leaf in specially shaped grooves.

Figure no. 25: (KMSM05) – brush seal



### 2.2.5 Drop seal

It is permissible to use Igloo DA0551 drop seals from the manufacturer Fapim DOMATIC with part number (OU00E) and the manufacturer Planet type RO with part number (OU78R). It is necessary to install the drop seals on the side opposite the hinges.

### 2.2.6 Glazing system

In the door leaf, glazing of the type and maximum dimensions contained in Table 1 shall be used. The minimum dimensions of the glazing are 250 x 250 mm.

Table no. 1 Permissible single leaf glazing

| Manufacturer | Trade name of single glazing | Thickness [mm] | Maximum dimensions | | |
|---|---|---|---|---|---|
| | | | width [mm] | height [mm] | area [m²] |
| AGC | Pyrobel 16 | 17,3 | 1264 | 2575 | 3,25 |
| Vetrotech | Contraflam 30 | 16 | 1022 | 2585 | 2,64 |
| Reglas | Pyrobat 15 | 15,3 | 1022 | 2585 | 2,64 |

The panes are set on steel plates (KWIE40-A), to which steel holders (KWIE40-B) are fixed on both sides using screws (one per holder) with dimensions Ø3.9 x 16 mm. Ceramic gaskets (KH0410) with dimensions of 4 x 10 mm are glued to the steel holders on both sides of the glazing. The glazing beads including the holders are fixed 150 mm from the corner of the glass with a maximum spacing of 570 on the vertical edges and 482 mm on the horizontal edges. In addition, an intumescent seal (KF0222) with a cross-sectional dimension of 2 x 22 mm is glued to the inner surface of the leaf frame. The infill is placed on wooden glazing washers (KXI4005) with dimensions of 80 x 38 x 2 mm and (KXI3205) with dimensions of 80 x 34 x 5 mm. The glazing closure is made of aluminium glazing beads (EI002) press- fitted to the frame on both sides of the glazing, to which the glazing seal (KULA17) or (KULA16) is press-fitted.

Figure no. 26: (KWIE40-A), (KWIE40-B) – steel glazing plates and handles

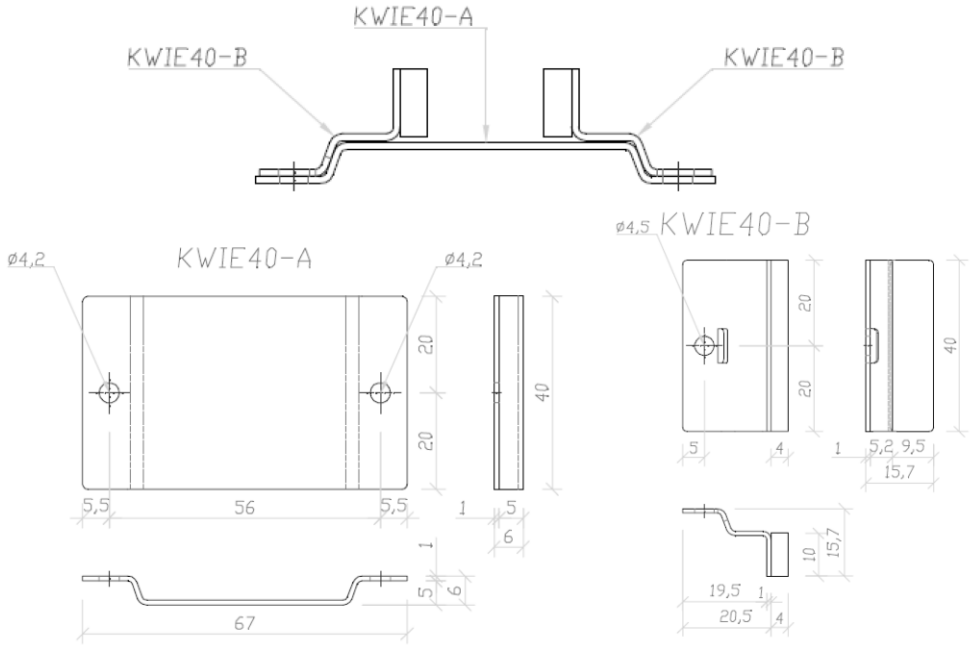


Figure no. 27: (KF0222) – intumescent seal


Figure no. 28: (KH0410) – ceramic gasket

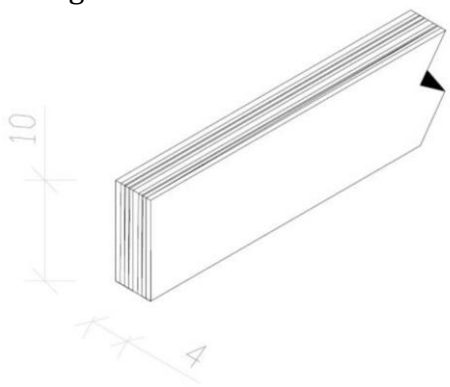



Figure no. 29: (EI002) – glazing bead

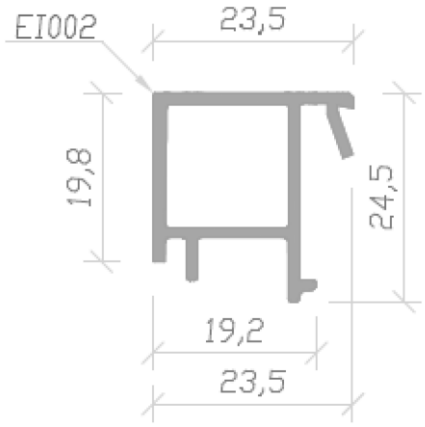



Figure no. 30: (KULA17) – glazing gasket

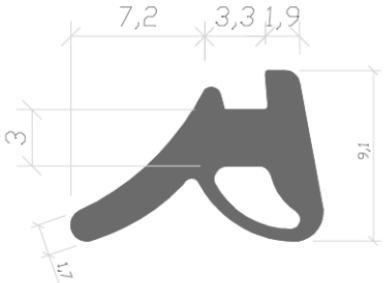



Figure no. 31: (KULA16) – glazing gasket

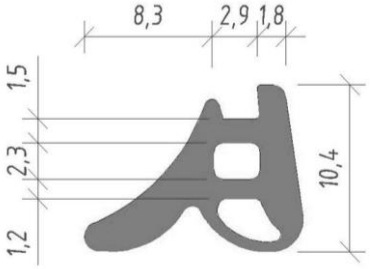


Figure no. 32: (KXI4005) – wooden washer

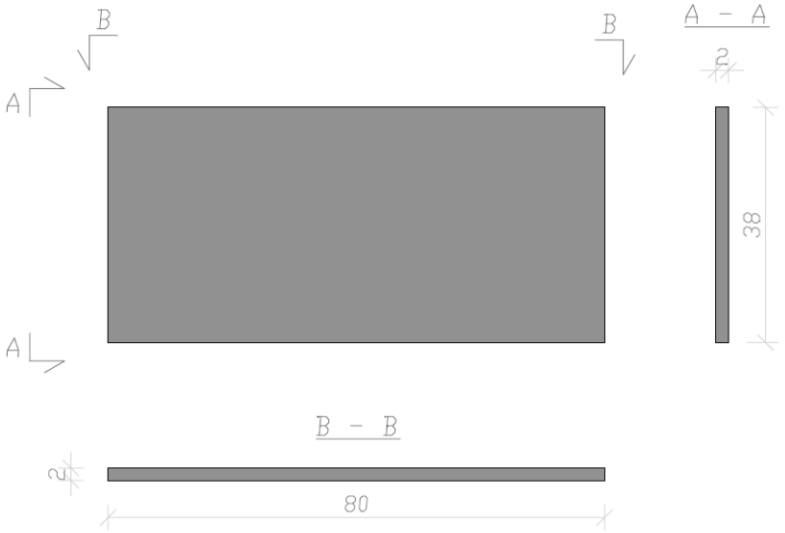
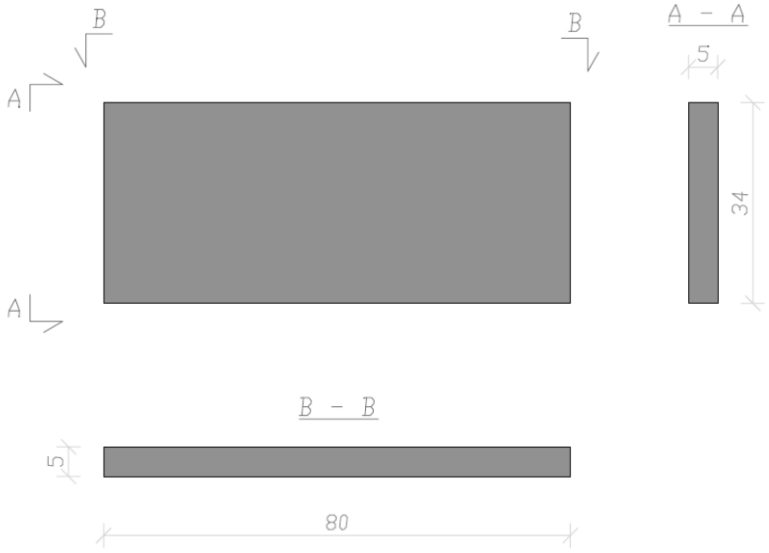



Figure no. 33: (KXI3205) – wooden washer




### 2.2.7 Hardware

#### 2.2.7.1 Hinges

It is possible to use hinges:
– hinge (KZIWA3-S) surface three-part type WX manufacturer WALA.
– hinge (KZISM3-S) surface three-part type 1145 manufacturer SAVIO.
– hinge (KZIDH3) surface three-part type 60AT manufacturer Dr Hahn.
– hinge (KZIFL3) surface three-part type Loira+ manufacturer Fapim.

Four or more hinges per leaf are permitted.

The following maximum distances are possible:
– distance between top edge of upper hinge and top edge of leaf not more than 135 mm;
– distance between bottom edge of lower hinge and bottom edge of leaf no more than 135 mm.

Reduction of the distance from the top of the upper hinge to the top edge of the leaf and from the bottom of the lower hinge to the bottom edge of the leaf is possible without restriction when respecting the fixing requirements.
Maximum distance between the lower edge of one hinge and the upper edge of the other: 1220 mm.

#### 2.2.7.2 Locks/electric strikers/strike plates

It is possible to use locks:

- single-point lock (OZ35WK) type 1438 manufacturer WILKA.
- single-point lock (OZ35WKI) type 638N manufacturer WILKA.
- single-point lock (OZ35AA-460) type EL460 manufacturer Assa Abloy.
- single-point lock (OZ00AA) type 807-10 manufacturer Assa Abloy.
- single-point lock (OZ30LP) type CVL 196R manufacturer Lockpol.
- single-point lock (OZ30LP) type systeQ 1438 manufacturer ESCO.
- three-point lock (OZ35AA-466) type EL466 manufacturer Assa Abloy.

It is permissible to install the locks at a handle height of between 850 mm and 1250 mm measured from the bottom of the construction.

It is possible to use electric strikers:

- Reversing electric strike (OERWAA-332.238) type 332.238 manufacturer Assa Abloy.
- Reversing electric strike (OERWAA-138F.13) type 138F.13 manufacturer Assa Abloy.

It is possible to use strike plate:
- (KBE01-WKI) type systeQ manufacturer ESCO
- (OZB0AA-EA322) type EA 322 manufacturer Assa Abloy.
- (OZB0AA-EA306) type EA306 manufacturer Assa Abloy.
- (KBE01-AA) manufacturer Vitrintec

#### 2.2.7.3 Lock cylinder

For the locks described in point 2.2.3.6 it is necessary to use a cylinder (OW5050) type WY500 50/50 YETI from the manufacturer LOB.

#### 2.2.7.4 Bolt

The passive leaf requires the use of a bolt (OBE002) type Capri 488 from the manufacturer Savio.

#### 2.2.7.5 Handle

A handle/knob set (OKPU0L) type Pure 8906 from DORMAKABA is required for the active leaf.

#### 2.2.7.6 Cable conduit

The use of a cable conduit (ODPK02) manufacturer Assa Abloy is permitted..

#### 2.2.7.7 Dog bolt

Dog bolts (KWIE57-R) manufacturer Vitrintec are used in the leaf.
It is possible to use two or more dog bolts per leaf.

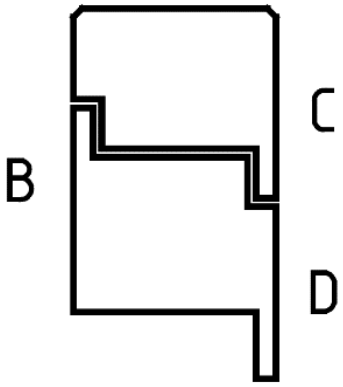
The following maximum distances are possible:
- the distance between the bottom edge of the leaf and the bottom dog bolt is 200 mm;
- the distance between the top edge of the leaf and the top dog bolt is 200 mm;
- the distance between the individual dog bolts is no greater than 2320 mm.

If these distances cannot be maintained, it is necessary to add another dog bolt.

#### 2.2.7.8 Door closer

It is possible to use door closers:
- door closer (OS0091) with rail (OS02SS) type TS91 manufacturer DORMAKABA;
- door closer (OS0093) with rail (OS01SS) type TS93 manufacturer DORMAKABA;
- door closer (OS0098) typ3 TS98 XEA manufacturer DORMAKABA;
- door closer type GR 200 manufacturer DORMAKABA;
- door closer type DC250 manufacturer Assa Abloy;
- door closer type DC300 manufacturer Assa Abloy;
- door closer type DC340 manufacturer Assa Abloy;
- door closer type DC500 manufacturer Assa Abloy;
- door closer (OSA700) type DC700 manufacturer Assa Abloy;

The door closer can be placed in the positions marked by the letters B, C and D in the figure below:




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

## 3.1 Test reports

| Name of laboratory | Name of sponsor | Test report ref. no. | Test standard and date |
|---|---|---|---|
| CERTBUD Sp. z o.o. Testing and Calibration Laboratories, Bukowiecka 92, 03-893 Warsaw | VITRINTEC Sp. z o.o. ul. Karola Olszewskiego 19C, 25-663 Kielce NIP: 959-196-70-51 | 1666/B/2022/S5A/1 | PN-EN 1363-1:2020-07 PN-EN 1634-1+A1:2018-03 31.03.2022 |
| CERTBUD Sp. z o.o. Testing and Calibration Laboratories, Bukowiecka 92, 03-893 Warsaw | VITRINTEC Sp. z o.o. ul. Karola Olszewskiego 19C, 25-663 Kielce NIP: 959-196-70-51 | 1665/B/2022/S5A/1 | PN-EN 1363-1:2020-07 PN-EN 1634-1+A1:2018-03 27.04.2022 |
| CERTBUD Sp. z o.o. Testing and Calibration Laboratories, Bukowiecka 92, 03-893 Warsaw | VITRINTEC Sp. z o.o. ul. Karola Olszewskiego 19C, 25-663 Kielce NIP: 959-196-70-51 | 1664/B/2022/S5A/1 | PN-EN 1363-1:2020-07 PN-EN 1634-1+A1:2018-03 15.06.2022 |

| Name of laboratory | Name of sponsor | Test report ref. no. | Test standard and date |
|---|---|---|---|
| CERTBUD Sp. z o.o. Testing and Calibration Laboratories, Bukowiecka 92, 03-893 Warsaw | VITRINTEC Sp. z o.o. ul. Karola Olszewskiego 19C, 25-663 Kielce NIP: 959-196-70-51 | 3068_1070/S5A/2 | PN-EN 1363-1:2020-07 PN-EN 1634-1+A1:2018-03 04.12.2024 |
| CERTBUD Sp. z o.o. Testing and Calibration Laboratories, Bukowiecka 92, 03-893 Warsaw | VITRINTEC Sp. z o.o. ul. Karola Olszewskiego 19C, 25-663 Kielce NIP: 959-196-70-51 | 2075/C/2023/R/2 | PN-EN 1634-1+A1:2018-03 PN-EN 15269-5+A1: 2016-11 |

## 3.2 The achieved test results

| Report ref. no. | Parameter | Result |
|---|---|---|
| 1666/B/2022/S5A/1 ( double door opening outside the furnace ) **Base report** | Supporting construction | Standard 100 mm thick flexible supporting construction made of 75 mm wide, 0.6 mm thick steel U-profiles, 75 mm wide, 2 mm thick steel U-profiles and 75 mm wide, 0.6 mm thick C-profiles, filled internally with mineral wool (50 mm thick, density approx. 50 kg/m$^3$) and faced on both sides with 12.5 mm thick F-type plasterboard. |
| | Integrity E | 43 minutes |
| | Insulation $I_1$ | 35 minutes |
| | Insulation $I_2$ | 35 minutes |
| | Radiation | Not applicable |
| | Self-closing | Maintained |
| | Overrun | $EI_1$ 30 – 5 minutes<br>$EI_2$ 30 – 5 minutes |
| | Effective rebate depth | 2,6 % (low) |
| 1665/B/2022/S5A/1 (double door opening inside the furnace) **Base report** | Supporting construction | Standard 100 mm thick flexible supporting construction made of 75 mm wide, 0.6 mm thick steel U-profiles, 75 mm wide, 2 mm thick steel U-profiles and 75 mm wide, 0.6 mm thick C-profiles, filled internally with mineral wool (50 mm thick, density approx. 50 kg/m$^3$) and faced on both sides with 12.5 mm thick F-type plasterboard. |
| | Integrity E | 46 minutes |
| | Insulation $I_1$ | 39 minutes |
| | Insulation $I_2$ | 39 minutes |
| | Radiation | Not applicable |
| | Self-closing | Maintained |
| | Overrun | $EI_1$ 30 – 9 minutes<br>$EI_2$ 30 – 9 minutes |
| | Effective rebate depth | 4,4 % (low) |

| Report ref. no. | Parameter | Result |
|---|---|---|
| 1664/B/2022/S5A/1 (single leaf door opening outside the furnace ) | Supporting construction | Standard 100 mm thick flexible supporting construction made of 75 mm wide, 0.6 mm thick steel U-profiles, 75 mm wide, 2 mm thick steel U-profiles and 75 mm wide, 0.6 mm thick C-profiles, filled internally with mineral wool (50 mm thick, density approx. 50 kg/m$^3$) and faced on both sides with 12.5 mm thick F-type plasterboard. |
| | Integrity E | 36 minutes |
| | Insulation $I_1$ | 28 minutes |
| | Insulation $I_2$ | 33 minutes |
| | Radiation | 36 minutes |
| | Self-closing | Maintained |
| | Overrun | $EI_1$ 30 – Not applicable<br>$EI_2$ 30 – 3 minutes |
| | Effective rebate depth | 7,1 % (low) |
| 3068_1070/S5A/2 (single leaf door opening outside the furnace ) | Supporting construction | Standard rigid low-density supporting construction made of 240 mm thick cellular concrete with a density of 600 kg/m$^3$ |
| | Integrity E | 34 minutes |
| | Insulation $I_1$ | 33 minutes |
| | Insulation $I_2$ | 33 minutes |
| | Radiation | Not applicable |
| | Self-closing | Maintained |
| | Overrun | $EI_1$ 30 – 3 minutes<br>$EI_2$ 30 – 3 minutes |
| | Effective rebate depth | 6,5 % (low) |
| 3068_1070/S5A/2 (single leaf door opening outside the furnace ) | Supporting construction | Standard rigid low-density supporting construction made of 240 mm thick cellular concrete with a density of 600 kg/m$^3$ |
| | Integrity E | 34 minutes |
| | Insulation $I_1$ | 32 minutes |
| | Insulation $I_2$ | 34 minutes |
| | Radiation | Not applicable |
| | Self-closing | Maintained |
| | Overrun | $EI_1$ 30 – 3 minutes<br>$EI_2$ 30 – 3 minutes |
| | Effective rebate depth | 4,8 % (low) |

# 4 Classification and field of application

## 4.1 References of classification

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

### 4.1.1 Classification

#### 4.1.1.1 Classification according to PN-EN 13501-2:2023-09

The element: Door CLASSIC FS, is classified according to the example of the following combinations of performance parameters and classes as appropriate:

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R | **E** | **I** | **W** | | ***t*** | ***t*** | **-** | M | S | - | **C** | IncSIow | sn | ef | r |

**Fire resistance classification:**

**$EI_2$ 30-C / EW 30-C / E 30-C**

## 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 15269-5+A1:2016-11. 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 03.07.2027 under the condition that the product described in the element classification, testing standards, classification standards, and extended standards shall remain unchanged.

**SIGNED**

Maciej Seta
KIEROWNIK PROCESU
Laboratoria Badawcze i Wzorcujące
CERTBUD Sp. z o.o.

**APPROVED**

CERTBUD

Signed by / Podpisano przez:
Rafał Dariusz Czyż
Date / Data: 2025-04-08 15:48

***End of the report***