

## **FIRE RESISTANT INTERNAL DOOR** **FD18 Clima**

### **Description:**

Hinged timber leaf hung in timber frame.

The door is intended to use as an internal door in buildings where the difference of temperature of the separate rooms can be up to 20°C.

### **Performance characteristics:**

Fire resistance: EI<sub>30</sub>

Smoke control: Sa/S<sub>200</sub> (single-leaf, without glazing)

Self-closing: C0

Sound insulation: Rw 38dB (single-leaf, without glazing)\*

### **Technical data:**

**Dimensions:** Single-leaf: M7-M10 x M21 (max M10 x M22).  
Double-leaf: M15-M20 x M21 (max M20 x M22).  
Special dimensions available on request.

**Door leaf:** Door leaf thickness 54 mm. Decoration is flush, possible to order decorative boards and/or slits, grooved pattern (depth up to 1,7mm).

**Glazing:** Glass opening max dimensions 733 mm x 1920 mm, glass Fireswiss Foam 30-15, painted wooden glazing bead, fixing with screws.

**Frame:** Softwood frame 42x92 mm, profile FR435 or FR435N.

**Threshold:** In standard hardwood threshold, height 25 mm, type RO. Also available with height 22 mm or 20 mm and automatic threshold.

**Finishing:** Door leaf and frame painted white (NCS S 0502-Y), special colors by catalogues.

**Fittings:** In standard Assa 565 lock case and adjustable striker plate 0094 (see also alternative fittings for fire- and smoke resistant doors ASL-08-0001).

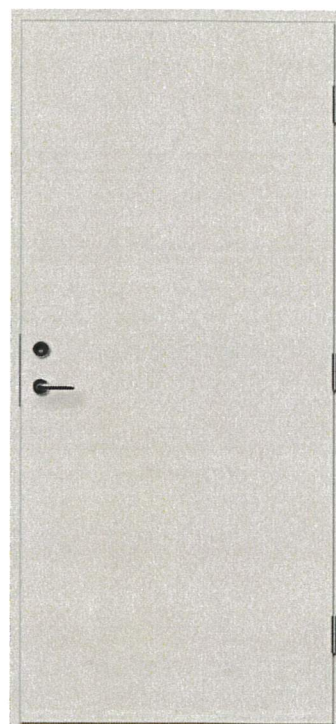
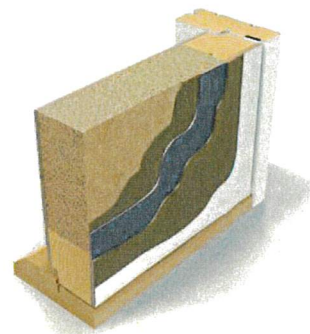
**Hinges:** Abloy 3248-110 TMKSS (3 pcs) or 110 x36 KSS (3 pcs)

**Accessories:**

- RST kick plate
- extra security lock ASSA 411 or Abloy 4181
- doorbell Abloy DF64
- door eye Y180
- door closer Abloy DC335+DC199, Dorma TS 73, TS 93 or ITS 96 2-4+G96 N20 P
- coordinator Oida 30DK
- lead cover and cable Abloy EA281
- key tube ASSA 88
- panic bar (surface mounted)
- flush bolt, automatic Oida 28HZ, Oida 30HZ or manual Oda 31HZ-C

**Certificates:** kiwa Certificate of Conformity no. ET-0221-18 (Inspecta Estonia OÜ)


**Packing:** Door leaf packed with frame. Edges covered with protective board and door coated with plastic.



KIWA certified  
ET-0221-18

**FD18**

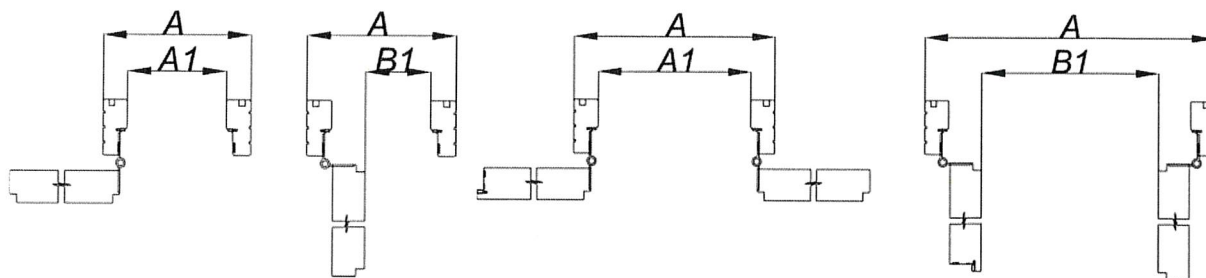
EI<sub>30</sub>  
C0  
S<sub>a</sub>/S<sub>200</sub>

**VILJANDI**   
Viljandi, Estonia  
2019  
ID:123456-1

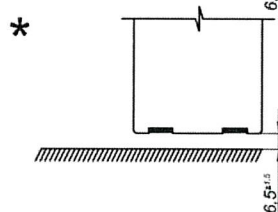
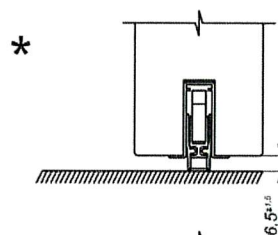
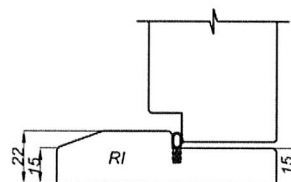
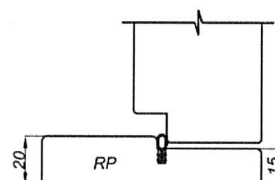
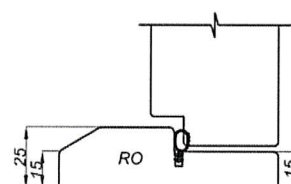
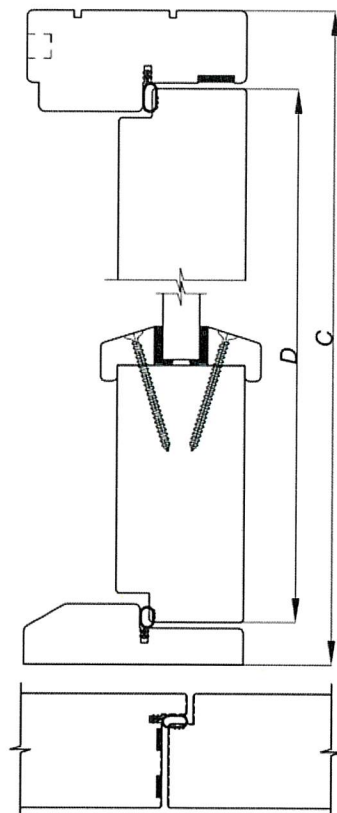
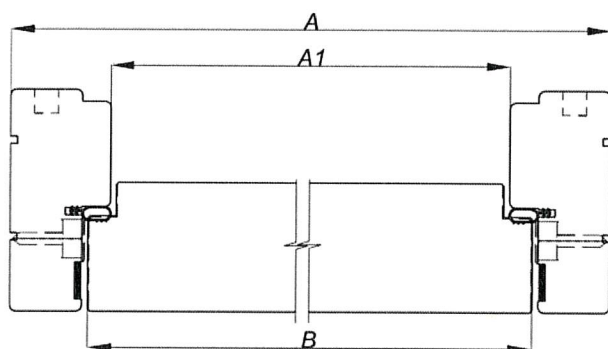
**FD18**

Rw 38dB

**VILJANDI**   
Viljandi, Estonia  
2019  
ID:123456-1



| Module                 | A (mm) | A1 (mm) | B (mm)  | B1 (mm) | C (mm) | D (mm) |
|------------------------|--------|---------|---------|---------|--------|--------|
| Single-leaf M9 x 21    | 890    | 806     | 825     | 750     | 2090   | 2040   |
| Single-leaf M10 x 21   | 990    | 906     | 925     | 850     | 2090   | 2040   |
| Double-leaf M19,3 x 21 | 1917   | 1833    | 925+925 | 1720    | 2090   | 2040   |
| Double-leaf M20 x 21   | 1990   | 1906    | 968+955 | 1793    | 2090   | 2040   |



\* Not allowed for double-leaf doors.

Construction without threshold is not allowed for single-leaf sound proof doors.

## Declaration of performance

**Producer:** AS VILJANDI AKEN JA UKS, reg no 10052966, Puidu 6, 71020 Viljandi, Estonia

Hereby declares that

**Product:** internal door **FD18 Clima**

**Product description:** hinged timber leaf hung in timber frame, fire resistant and sound insulation wooden door.

**Intended use or uses of the construction product:** for closing entrances between the fire compartments of heated working and living premises.

**Systems of assessment and verification of constancy of performance of the construction product:** system 1

**Produced:** AS Viljandi Aken ja Uks, Puidu 6, 71020, Viljandi, Estonia

Confirms with following characteristics:

| No   | Characteristics  | Test or calculation standard  | Classification standard | Unit  | Class/ value           | Test report                      | Notified body* |
|------|--|-------------------------------|-------------------------|-------|------------------------|----------------------------------|----------------|
| 1.   | Fire resistance  | EN 1634-1                     | EN 13501-2              | Class | El,30<br>El,230<br>E30 | 735-18T2PAU<br>TEK-249/19        | 1526           |
| 2.1. | Single door with wooden threshold, key tube and doorbell                         | EN ISO 10140-2                | ISO 717-1               | dB    | 40                     | VTT-S-05870-14                   | 0809           |
| 2.2. | Single door with wooden threshold, key tube, letterbox, door viewer and doorbell |                               |                         | dB    | 39                     | VTT-S-05869-14                   | 0809           |
| 2.3. | Single door with drop down seal (Planet PU), key tube and doorbell               |                               |                         | dB    | 39                     | VTT-S-05870-14                   | 0809           |
| 3.   | Smoke control  | EN 1634-3                     | EN 13501-2              | Class | Sa/S <sub>200</sub>    | SD-181-19-0061<br>SD-181-19-0064 | 1336           |
| 4.   | Self-closing   | EN 1191                       | EN 13501-2              | Class | C5                     | DD-181-19-0065                   | 1336           |
| 5.   | Burglary resistance  | EN 1628<br>EN 1629<br>EN 1630 | EN 1627                 | Class | RC2                    | 2P06613                          | 0402           |

**\*Notified body:**

0809 – Eurofins Expert Services Oy

1526 – TÜV Eesti OÜ

1336 – Inspecta Estonia OÜ

0402 – RISE Research Institutes of Sweden AB

- Products are produced according to standardisation proposal SFS 4434 in case it is not in conflict with European standards.
- Products are installed according to the product installation and maintenance instructions.
- "Warranty conditions for doors and windows sold by AS Viljandi Aken ja Uks" apply to the sale of products.

AS Viljandi Aken ja Uks



Veiko Põldsaar  
R&D Manager  
22.01.2021

Certificate of conformity

ET-0221-18



Based on Estonian Regulation No. 49 of the Minister of Economic Affairs and Communications of 26.07.2013 „Requirements and procedure for attestation of the conformity for building materials and construction products“ § 4, it has been stated that the construction product

## Single- and double leaf fire resistant wooden door FD18

placed on the market by

### Viljandi Aken ja Uks AS

Puidu tn 6, 71020 Viljandi linn, Viljandi maakond, ESTONIA

and produced in the factory

### Viljandi Aken ja Uks AS

Puidu tn 6, 71020 Viljandi linn, Viljandi maakond, ESTONIA

(Projektskema: Pärnu mnt 20, 71012 Viljandi linn, Viljandi maakond, ESTONIA)

is submitted by the manufacturer to a factory production control and to the further testing of samples taken at the factory in accordance with a prescribed test plan and that Inspecta Estonia OÜ has performed type testing, the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

This certificate attests that all provisions concerning the attestation of conformity and the performances described in Annex ZA of the standard

## EN 16034:2014

were applied and that the product fulfils all the prescribed requirements.

This certificate is issued on **03.09.2018** and remains valid until **02.09.2023** as long as the conditions laid down in the standard in reference or the manufacturing conditions in the factory or the FPC itself are not modified significantly. The validity of the certificate can be checked on the Internet at [www.inspecta.com/et](http://www.inspecta.com/et). Classification and field of direct application is presented in the TS-ET-0221 Appendix Z.

German Virmas  
Head of the conformity assessment department

Tallinn 03.09.2018



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Teaduspargi 8  
12618 Tallinn  
EESTI  
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[www.inspecta.com/et](http://www.inspecta.com/et)



Approved technical description TS-ET-0221  
version 05, APPENDIX Z



**Certificate No:** ET-0221-18

**Name and address of the sponsor:** Viljandi Aken ja Uks AS, Puidu tn 6, Viljandi linn, 71020 Viljandi maakond, ESTONIA

**Name and address of the producer:** Viljandi Aken ja Uks AS, Puidu tn 6, Viljandi linn, 71020 Viljandi maakond, ESTONIA (Projekturetehas Pärnu mnt 20, Viljandi linn, 71012 Viljandi maakond, ESTONIA)

**Product:** Single- and double leaf fire resistant wooden door FD18

**Date:** 11.11.2019

## 1. Essential characteristics and performance

Classification of single leaf door according to EN 13501-2:2016: **EI<sub>1</sub>30 – Sa/S<sub>200</sub> – C5**

| Essential characteristics | Performance        |                    |                    |                    |                    |                    |                     |                     |                     |
|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|
| Resistance to fire        | E15                | E20                | E30                | E45                | E60                | E90                | E120                | E180                | E240                |
|                           | EI <sub>1</sub> 15 | EI <sub>1</sub> 20 | EI <sub>1</sub> 30 | EI <sub>1</sub> 45 | EI <sub>1</sub> 60 | EI <sub>1</sub> 90 | EI <sub>1</sub> 120 | EI <sub>1</sub> 180 | EI <sub>1</sub> 240 |
|                           | EI <sub>2</sub> 15 | EI <sub>2</sub> 20 | EI <sub>2</sub> 30 | EI <sub>2</sub> 45 | EI <sub>2</sub> 60 | EI <sub>2</sub> 90 | EI <sub>2</sub> 120 | EI <sub>2</sub> 180 | EI <sub>2</sub> 240 |
|                           | -                  | EW20               | EW30               | -                  | EW60               | -                  | -                   | -                   | -                   |
| Smoke control             | S <sub>a</sub>     |                    |                    |                    | S <sub>200</sub>   |                    |                     |                     |                     |
| Self closing              | C0                 |                    | C1 *               |                    | C2 *               |                    | C3 *                |                     | C4 *                |

\* The self-closing classifications C1-C5 cover only doors with a door leaf weight ≤ 80 kg.

## 2. Product specification and field of application

| Configuration allowed  | Max dimensions of leaf |       |                   | Performance        |    |                  |    |
|--|------------------------|-------|-------------------|--------------------|----|------------------|----|
|  | W, mm                  | H, mm | A, m <sup>2</sup> | EI <sub>1</sub> 30 | Sa | S <sub>200</sub> | C5 |
| Leaf of single leaf doorset without letter plate                   | 1113                   | 2461  | 2,48              | +                  | +  |                  |    |
|  | 1063                   | 2461  | 2,38              | +                  | +  | +                |    |
| Leaf of single leaf doorset with letter plate                      | 971                    | 2154  | 2,09              | +                  | +  | +                |    |
| Leaf of single leaf doorset (with or without letter plate)         | 967                    | 2140  | 2,06              | +                  | +  | +                | +  |
|  | 1063                   | 2472  | 2,38              |                    | +  | +                |    |
|  | 1480                   | 3440  | 3,57              |                    | +  |                  |    |
| Active leaf of double leaf doorset without letter plate            | 1113                   | 2461  | 2,48              | +                  | +  |                  |    |
|  | 1112                   | 2461  | 2,48              | +                  | +  | +                |    |
| Active leaf of double leaf doorset with letter plate               | 971                    | 2154  | 2,09              | +                  | +  |                  |    |
|  | 971                    | 2140  | 2,07              | +                  | +  | +                |    |
| Active leaf of double leaf doorset (with or without letter plate)  | 967                    | 2140  | 2,06              | +                  | +  | +                | +  |
|  | 1112                   | 2461  | 2,48              |                    | +  | +                |    |
|  | 1547                   | 3424  | 3,72              |                    | +  |                  |    |
| Passive leaf of double leaf doorset without letter plate           | 1098                   | 2461  | 2,45              | +                  | +  | +                |    |
| Passive leaf of double leaf doorset with letter plate              | 981                    | 2154  | 2,11              | +                  | +  |                  |    |
|  | 981                    | 2140  | 2,09              | +                  | +  | +                |    |
| Passive leaf of double leaf doorset (with or without letter plate) | 967                    | 2140  | 2,06              | +                  | +  | +                | +  |
|  | 1112                   | 2461  | 2,48              |                    | +  | +                |    |
|  | 1547                   | 3424  | 3,72              |                    | +  |                  |    |
| Thickness of the door leaf   | 54 mm                  |       |                   |                    |    |                  |    |
| Frame profile  | (42/30 x 92) mm        |       |                   |                    |    |                  |    |

Inspecta Estonia OÜ  
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Tel +372 659 9470  
estonia@kiwa.com

Vorm nr VHE025- TSZ-i 02.19

1/4



| Field of application for fire resistance  | Field of application for smoke control   |
|---|--|
| The mode of operation of leaves shall not be changed.   |  |
| The cross-sectional dimensions and/or the density of the timber frames (including rebates) shall not be reduced but may be increased.   |  |
| Single leaf doorset may be installed with wooden threshold, with mechanical threshold Planet FT, without threshold (gap at the lower edge of leaf $\leq 6$ mm) or stainless-steel sheet on the floor. | <p>In case of Sa the single leaf doorset may be installed with wooden threshold, with mechanical threshold Planet FT, without threshold (gap at the lower edge of leaf <math>\leq 6</math> mm) or stainless-steel sheet on the floor.</p> <p>In case of S<sub>200</sub> the single leaf doorset may be installed with mechanical threshold Planet FT or with wooden threshold.</p> |
| Double leaf doorset may be installed only with wooden threshold.  |  |

| Glass panes                           | Max dimensions of panes |       |                   | Performance       |    |                  |
|---------------------------------------|-------------------------|-------|-------------------|-------------------|----|------------------|
|                                       | W, mm                   | H, mm | A, m <sup>2</sup> | El <sub>130</sub> | Sa | S <sub>200</sub> |
| Fireswiss Foam 30-15, thickness 15 mm | 839                     | 2202  | 1,67              | +                 | +  | +                |
|                                       | 742                     | 1915  | 1,42              | +                 | +  | +                |
| Toughened glass, thickness 8 mm       | 742                     | 1915  | 1,42              | +                 | +  | +                |

| Field of application for fire resistance   | Field of application for smoke control   |
|--|--|
| Door may be produced up to 1 glazing or without glazing.   | Door may be produced up to 3 glazings or without glazing.                                  |
| The minimum permitted distance between the edge of glazing and the vertical edge of leaf is 110 mm.<br>The minimum permitted distance between the edge of glazing and the horizontal edge of leaf is 110 mm. |  |
| -  | The minimum permitted distance between vertical and horizontal edges of glazing is 100 mm. |

| Sealing of the door leaf and frame |   |
|------------------------------------|---|
| Intumescent sealing (2,0 x 15)     | On vertical frame members and on top frame member.  |
| Intumescent sealing (2,0 x 10)     | 2 stripes on the lock side edge of passive leaf or on the lower edge of leaf if there is no threshold used. |
| Silicone sealing Ø 10 mm           | On frame and on the lock side edge rebate of passive leaf.  |
| Silicone sealing Ø 6 mm            | On threshold if it exists.  |



| Hardware   |   |
|--|---|
| Lock   | multipointlock ASSA M5001*; ASSA 565*; Abloy EL580*; ASSA 410-50*; Vingcard Signature*; Vingcard Classic*; Rollock Smart Lock E111/E112**                       |
| Additional lock  | ASSA 411; Abloy 4181  |
| Striking plate   | ASSA 730 + 575; ASSA 1887-2; Abloy EL712; Multihela 0094; Rollock ISP-RH; Abloy 5995; EP SECELAS S+EFT-C-RACT9; ASSA 1487-2; Abloy 4691; Abloy LP712; ASSA 5144 |
| Hinges<br>/2 pcs per leaf, if smoke control is declared<br>3 pcs per leaf, if fire resistance is declared/ | Assa Abloy 3248-110; Abloy 110 x 36 TMKS; Tectus 340 3D***; ASSA 3248-01 FOP**; Otlav IN300120; Otlav IN303120  |
| Closer   | Dorma TS 73; Dorma TS 93; Assa Abloy DC 355 + DC 199; concealed closer Dorma ITS 96 2-4 + G96 N20 P   |
| Door coordinator   | Olda 30 DK  |
| Automatic flush bolt /2 pcs on passive leaf/   | Olda 28HZ; Olda 31HZ-C**  |
| Manual flush bolt /2 pcs on passive leaf/  | Olda 30HZ**   |
| Quick bolt /1 pc on passive leaf/  | Abloy DF3000**  |
| Panic bar  | Abloy PBE001; Abloy PBE002  |
| Door viewer  | Y180; Amig 180  |
| Door bell  | Abloy DF 64A  |
| Letter plate   | Primo 31  |
| Lead cover   | Abloy EA281   |
| Key tube   | ASSA 88   |

\* Self-closing C1 – C5 is assured only with strike plates defined in the product family.

\*\* Hardware is not permitted if self-closing C1 – C5 is declared.

\*\*\* Hardware is not permitted if fire resistance is declared.

| Field of application for fire resistance   | Field of application for smoke control  |
|--|---|
| 995 ± 200 mm variation from lower edge is allowed. Additional lock if it exists is positioned 400 mm from the main lock.       |   |
| The number of hinges may be increased. The number of hinges may be decreased provided the distance between hinges is ≤ 820 mm. | The number of hinges may be increased.  |
| Distance between the centre of the endmost hinges and edge of doorleaf is 100 mm – 250 mm.                                     | Distance between the centre of the endmost hinges and edge of doorleaf is ≤ 350 mm. |
| If self-closing characteristics are not required, the doorset may be installed without door closing device.                    |   |

### 3. General field of application

| Field of application for fire resistance   | Field of application for smoke control  |
|--|---|
| Doorset may be mounted in standard high density rigid, in standard low density rigid and in standard flexible supporting construction. |   |
| The installation gap may be sealed with mineral wool, with fire rated PU foam or using combined sealing with wool and foam.            |   |
| Installation gap ≤ 25 mm.  | Installation gap ≤ 15 mm, if wool or combined sealing is used. Installation gap for single leaf door ≤ 40 mm and for double leaf door ≤ 25 mm, if foam is used. |



| Field of application for fire resistance   | Field of application for smoke control   |
|--|--|
| The door leaf and the door frame may be painted.   |  |
| Timber veneer up to 3 mm thick or decorative laminate, plastic or cloth up to 2 mm thick may be added to the faces (but not the edges) of leaves.  | Decorative laminates and timber veneers up to 1,5 mm thickness may be added to the faces (but not the edges) of leaves |
| Decorative facings such as glass sheet, marble, stone or ceramic tile with a reaction to fire class A1 or A2 may be glued to the faces of leaves (but not to the area of the leaf behind the door frame rebates) providing the total increase in leaf weight is not more than 25 %.  | -  |
| Timber-based mouldings may be added to the faces of leaves providing they will not cover more than 25 % of the surface of one face. Timber-based mouldings may be added to the faces of leaves so they will cover more than 25 % of the surface of one face only if the mouldings are placed on both face of leaf and the mass of the leaf is not increased by more than 25 %. | -  |
| The doorleaf may be produced with grooves, if the depth of the groove is $\leq 2,5$ mm and cross-section area of the groove is $\leq 50$ mm <sup>2</sup> . The minimum distance between edges of parallel grooves is 112 mm. The total area of the grooves may be up to 13% of the area of leaf.   |  |
| 1,0 mm thick and 900 mm high protective stainless-steel sheet may be added on the lower part of leaf and/or frame.   |  |



# NDVK

NORWEGIAN DOOR-AND  
WINDOW-CONTROL

CERTIFIED

## Certificate

It's confirm that

**Viljandi Aken ja Uks AS, Doorfactory Estonia**

Fulfil the requirements according to

**NORWEGIAN DOOR- AND WINDOW CONTROL**

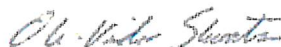
### ***NDVK-Rules***

The certificate include all production of windows and doors,  
and include the following products:

#### **Door types:**

- VU T1 HPL, outward opening timberdoor, with or without glazing.
- VU T1, outward opening timberdoor, with or without glazing.
- FD 14, one sided hinged timber leaf in timber frame, external door.

Oslo date: 05.03.2021



NDVK chairman

Date of issue first time: 02.01.201

Valid thru: 31.12.2021

Certificate NO.: 061

# NDVK

NORWEGIAN DOOR-AND  
WINDOW-CONTROL

CERTIFIED

Quality management in the production of windows and door fulfils the requirement to **NDVK Rules:**

**Requirements for doors and windows of 01/2019**

and

**Rules for certificate and inspection of 01/2019.**

The product at page 1 fulfil the requirement according to:

| Characteristic           | Classification/value |      |       |       |       |       |       |       |       |        | NDVK req. |
|--------------------------|----------------------|------|-------|-------|-------|-------|-------|-------|-------|--------|-----------|
| <b>Air permeability</b>  | 1                    |      | 2     |       | 3     |       | 4     |       | 4     |        |           |
| Class                    | 150                  |      | 300   |       | 600   |       | 600   |       |       |        |           |
| Max. test pressure (Pa)  | 150                  |      | 300   |       | 600   |       | 600   |       |       |        |           |
| <b>Watertightness</b>    |                      |      |       |       |       |       |       |       |       |        | 7A or 7B* |
| Class - Non-shielded (A) | 1 A                  | 2 A  | 3 A   | 4 A   | 5 A   | 6 A   | 7 A   | 8 A   | 9 A   | E      |           |
| Test pressure (Pa)       | (0)                  | (50) | (100) | (150) | (200) | (250) | (300) | (450) | (600) | (>600) |           |
| Class - Shielded (B)     | 1 B                  | 2 B  | 3 B   | 4 B   | 5 B   | 6 B   | 7 B   |       |       |        |           |
| Test pressure (Pa)       | (0)                  | (50) | (100) | (150) | (200) | (250) | (300) |       |       |        |           |

\* Requirement for windows and balcony-doors

\*\* ) Requirement for Pedestrian doors