

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 (Projektuksetehas 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: **EI₁30 – Sa/S₂₀₀ – C5**

Essential characteristics	Performance								
Resistance to fire	E15	E20	E30	E45	E60	E90	E120	E180	E240
	EI ₁ 15	EI ₁ 20	EI ₁ 30	EI ₁ 45	EI ₁ 60	EI ₁ 90	EI ₁ 120	EI ₁ 180	EI ₁ 240
	EI ₂ 15	EI ₂ 20	EI ₂ 30	EI ₂ 45	EI ₂ 60	EI ₂ 90	EI ₂ 120	EI ₂ 180	EI ₂ 240
	-	EW20	EW30	-	EW60	-	-	-	-
Smoke control	S _a				S ₂₀₀				
Self closing	C0		C1 *	C2 *	C3 *	C4 *	C5 *		

* 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 ²	EI ₁ 30	Sa	S ₂₀₀	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						

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 ≤ 6 mm) or stainless-steel sheet on the floor.	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 ≤ 6 mm) or stainless-steel sheet on the floor. In case of S ₂₀₀ the single leaf doorset may be installed with mechanical threshold Planet FT or with wooden threshold.
Double leaf doorset may be installed only with wooden threshold.	

Glass panes	Max dimensions of panes			Performance		
	W, mm	H, mm	A, m ²	EI ₃₀	Sa	S ₂₀₀
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. 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	multi-point lock 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 /2 pcs per leaf, if smoke control is declared 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 ≤ 50 mm ² . 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.	

