

Classification Report

Number	21-003682-PR01 (NW-E01-02-en-02)
Owner	GLASSCON S.A. Façade engineering & Contracting Kifisias Avenue162 11525 Athen Greece
Product	External vertically pivoting blind
Designation	System: Prodea Shipping name: External Louver Glasscon - Prodea Fragoklisia
Details	Manufacturer GLASSCON S.A., - Athen; Material Aluminium; Overall dimensions (W x H) 1320 mm x 3137 mm; Clear opening 1320 mm x 2868 mm; Cross section (H x D) 2868 mm x 85 mm
Special features	Nominal load tested up to 1,100 Pa Safety load tested up to 1,650 Pa

Result **)

EN 13659:2008-10



B_{1,320} X H_{2,868}

Class 6

Basis *)

EN 13659-2004+A1:2008-10

EN 13659:2015-05

*) and corresponding national versions
(e.g. DIN EN)

Test report: 21-003682-PR01 PB-E01-02-en-02

Replaces ift-Nachweis: 21-003682-PR01 NW-E01-02-en-01 dated 17.11.2021.

Representation



Instructions for use

The results obtained can be used by the manufacturer for preparing the Declaration of Performance in accordance with the Construction Products Regulation 305/2011/EU. The provisions of the applicable product standard have to be observed.

**) Decision rule: For the conformity assessment, the determined measurement results were assumed to be error-free values.

Validity

There is no time limit.

When using this document the up-to-dateness of above basis and the conformity of the product have to be observed.

Notes on publication

The ift-Guidance Sheet "Conditions and Guidance for the Use of ift Test Documents" applies.

Identity-Check



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27.11.2021



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Test Report



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Special features	Nominal load tested up to 1,100 Pa Safety load tested up to 1,650 Pa
Order	Resistance to wind loads - shutters
Contents	The test report contains a total of 7 pages and annexes (8 pages).
Note	This test report replace Test Report no. 21-003682-PR01 PB-E01-02-en-01 dated 17.11.2021. The test report shall only be published in its unabbreviated form. The "Guidance Sheet for the Use of ift Test Documents" ap- plies.

Ve-PB0-4390-en/ (01.11.2019

Resistance to wind loads - shutters

2 Detailed results

Resistance to wind load according to EN 1932:2013-06

Project-No.	21-003682-PR01
Basis	EN 1932:2013-06 External blinds and shutters - Resistance to wind loads - Method of testing and performance criteria
Test equipment	EPst/026348 - Window and facade test rig
Test specimen	External shutter
Test specimen No.	54633-001
Date of test	22.10.2021
Test engineer in charge	Dimitrios Moustakidis
Test engineer	Alexandros Simeonidis

Implementation of tests
 Deviations: There have been no deviations from the test method as specified in the standard/basis.

Ambient conditions: Temperature 18.3 °C Air humidity 57,7 %
 The ambient conditions are in accordance with the standard/basis requirements.

Measurement data/Results

Overall size W x H	1320	x	3137 mm
Venetian blind size W x H	1320	x	2868 mm
Area of test specimen	3.61 m ²		
Distance film/lamella (x)	144 mm		

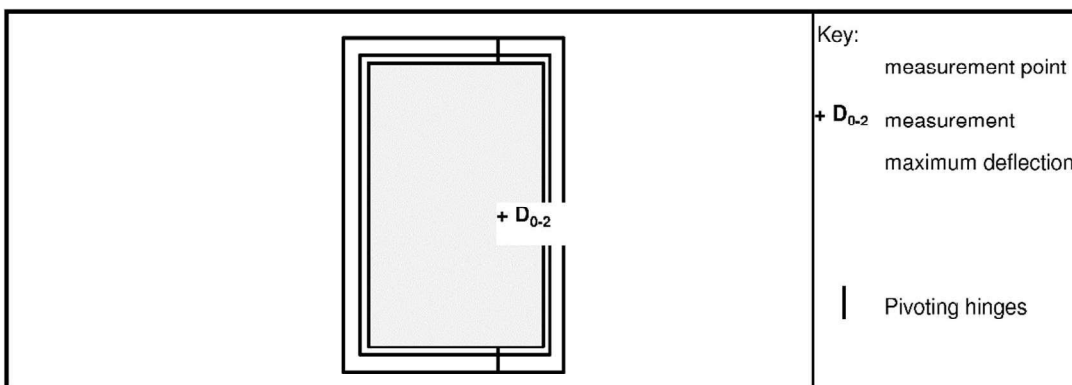


Fig. 1 test specimen



Calculation nominal load: $F_N = p \times L \times H$

Table 1 Conversion test loads nominal load

Class	0	1	2	3	4	5	6
Nominal test pressure p_N [N/m²]		50	70	100	170	270	400
Nominal load F_N [N]		181	253	361	614	976	1445

Requirements:

The conclusion must not be deformed or damaged that it no longer functions properly. (No slipping, no breaking, no deformation according to the standard specification)

Deflection under nominal load:

$D_1 - D_0 < L/10$ $L = 1320 \text{ mm}$ $L/10 = 132 \text{ mm}$

Permanent deformation on single components:

$D_x < L/75$ $L = 300 \text{ mm}$ $L/75 = 4 \text{ mm}$

Calculation safety load: $F_S = \gamma \times F_N$

Safety factor γ : 1.5

Table 2 Conversion test loads, safety load

Class	0	1	2	3	4	5	6
Safety test pressure p_S [N/m²]		75	105	150	255	405	600
Safety load F_S [N]		271	379	542	921	1464	2168

Requirments:

No damage that can be dangerous to persons
 (by breaking or slipping from the mounting or guiding devices)

Calculation film size:

$H_f = H + 1250 + 2x$ $H_f = 4406 \text{ mm}$

$L_f = L + 1000 + 2x$ $L_f = 2608 \text{ mm}$

1.1 Direct nominal load (positive pressure)

Table 3 Reference distance

Reference distance without pre load [mm]	D_0	220
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Table 4 Test results horizontal shift at measurement point D

Test load $-p_N$ [Pa] (2 min.)	Horizontal shift under load [mm]			Observation
50	D_1		$D_1 - D_0$	
70	D_1		$D_1 - D_0$	
100	D_1		$D_1 - D_0$	
170	D_1	247,2	$D_1 - D_0$ 27	No damage
270	D_1		$D_1 - D_0$	
400	D_1	179	$D_1 - D_0$ 41	No damage



Resistance to wind loads - shutters

Note

Nominal load up to 1100 Pa

Achieved classification at direct nominal load p_N	400 N/m ²	Class	6
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1.2 Reversed nominal load (negative pressure)

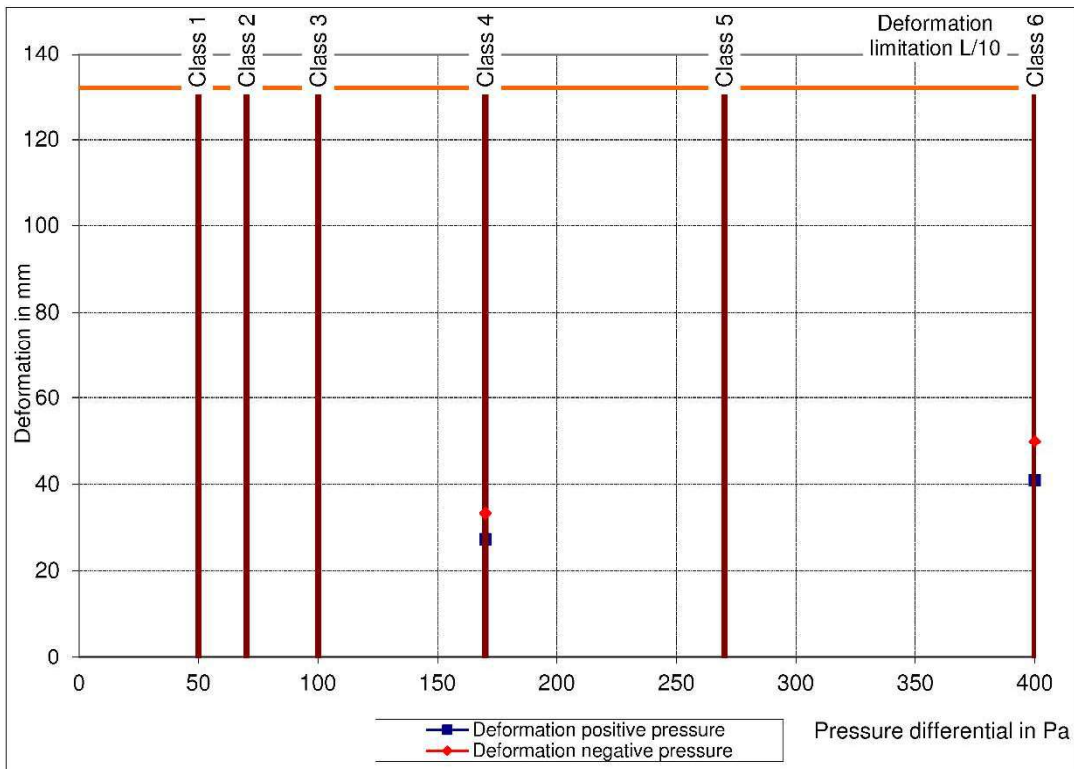
Table 5 Reference distance

Reference distance without pre load [mm]	D_0	414
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Table 6 Test results horizontal shift at measurement point D

Test load $-p_N$ [Pa] (2 min.)	Horizontal shift under load [mm]			Observation	
	D_1		$D_1 - D_0$		
50	D_1		$D_1 - D_0$		
70	D_1		$D_1 - D_0$		
100	D_1		$D_1 - D_0$		
170	D_1	447,1	$D_1 - D_0$	33	No damage
270	D_1		$D_1 - D_0$		
400	D_1	364	$D_1 - D_0$	50	No damage

Achieved classification at reversed nominal load $-p_N$	400 N/m ²	Class	6
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Graph 1 Deformation under wind load at positive pressure and negative pressure