

CS 77 Windows

PRODUCT PASS

Date: **22 April 2022**

Language: **English**



Together for better
www.reynaers.com

1 GENERAL EXPLANATION

The following paragraphs indicate the performances which can be declared on the Declaration of Performance (DoP) in accordance with Regulation (EU) no. 305/2011 of the European Parliament and of the Council of 9 March 2011.

The listed characteristics are the essential characteristics for external pedestrian doorsets according to hEN 14351-1:2006+A2:2016 Windows and doors - Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets.

All essential characteristics should be mentioned on the DoP. Where no performance is required, NPD (No Performance Declared) can be used.

The mentioned performances are performances which can be achieved for the given dimensions when the product is fabricated following the Reynaers instruction manual (catalogue). The performances as mentioned will meet the requirements of the majority of projects.

Higher performances for smaller dimensions or lower performances for larger dimensions might be possible. In this case contact your Reynaers office. For AWW performances, the maximum dimensions indicated in the system catalogue must be respected.

It is obviously allowed to declare lower performances than those mentioned in the product pass. E.g. when resistance to wind load of 1600 Pa was tested, also 1200 Pa can be declared.

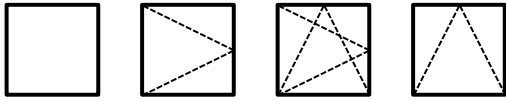
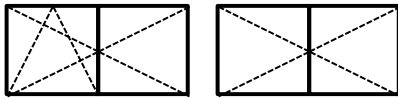
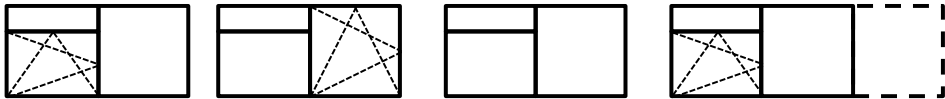
In the second part of the table the non-essential characteristics are indicated. These are the characteristics which give information about the performance of a product, but which are not legally required in any European country and thus not mandatory to declare.

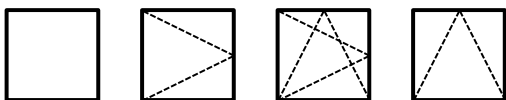
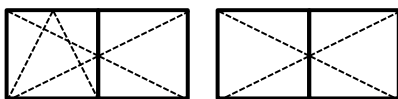

2 NOTIFIED BODIES

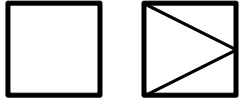

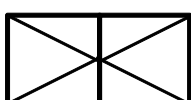
ID	Name	Address	Country
0074	CENTRE D'EXPERTISE DU BÂTIMENT ET DES TRAVAUX PUBLICS	Domaine De Saint-Paul – 102, Route de Limours 78471 Saint-Remy-Les-Chevreuse Cedex	France
0432	MATERIALPRÜFUNGSAMT NORDRHEIN-WESTFALEN	Auf den Thränen 2 59597 Erwitte	Germany
0679	CENTRE SCIENTIFIQUE ET TECHNIQUE DU BÂTIMENT	84, Avenue Jean Jaurès Champs-sur-Marne F-77447 Marne-la-Vallée Cedex 2	France
0744	SOCOTEC	Les Quadrants – 3,Avenue du Centre – Guyancourt 78182 St-Quentin en Yvelines	France
0749	BELGIAN CONSTRUCTION CERTIFICATION ASSOCIATION	Aarlenstraat 53 1040 Brussel	Belgium
0757	IFT ROSENHEIM	Theodor-Gietl-Strasse 7-9 83026 Rosenheim	Germany
0845	DANISH INSTITUTE OF FIRE AND SECURITY TECHNOLOGY	Jernholmen, 12 2650 Hvidovre	Denmark
0960	SKG-IKOB	Poppenbouwing 56 4191 NZ Geldermalsen	Netherlands
1136	BELGIAN BUILDING RESEARCH INSITUTE	Lombardstraat 42 1000 Brussel	Belgium
1234	EFFECTIS NEDERLAND	Brandpuntlaan Zuid 16, Postbus 554 2665 ZN Bleiswijk	Netherlands
1288	WINTech ENGINEERING LIMITED	Halesfield 2 Telford,Shropshire TF7 4QH	United Kingdom
1309	PRÜFINSTITUT SCHLÖSSER UND BESCHLÄGE, VELBERT	Wallstrasse 41 42551 Velbert	Germany
1488	INSTYTUT TECHNIKI BUDOWLANEJ	ul. Filtrowa 1 00-611 Warszawa	Poland
1671	PEUTZ	Lindenlaan 41, Molenhoek PO Box 66 6585 ZH MOOK	Netherlands
1749	TNO DEFENCE, SECURITY AND SAFETY	Lange Kleiweg 137, Postbus 45 2280 AA Rijswijk	Netherlands
1769	UNIVERSITY OF GENT	Sint-Pietersnieuwstraat 41 9000 Gent	Belgium
2211	INSTITUTO DE INVESTIGAÇÃO E DESENVOLVIMENTO TECNOLÓGICO PARA A CONSTRUÇÃO, ENERGIA, AMBIENTE E SUSTENTABILIDADE	Rua Pedro Hispano Pólo II da Universidade de Coimbra 3030-289 Coimbra	Portugal

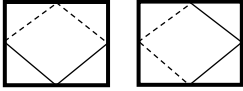
3 VARIANTS

Different variants have been grouped based on similar design and following the guidelines of the harmonised standard

Inward opening	
5.1	
5.2	
5.3	

Inward opening Hidden Vent	
5.4	
5.5	
5.6	

Outward opening	
5.7	
5.8	
5.9	

Pivot Window	
5.10	

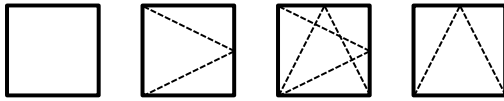
4 EXPLANATIONS AND SYMBOLS

H: Element Height
B: Element Width
Fh: Vent Height
Fb: Vent Width
npd: No Performance Declared
CWFT: Classification Without Further Testing

⁽⁴⁾ Fixed windows: Standard glazing beads: $p < 2000$ Pa, $W \times H < 1400 \times 2400$ mm; $p < 1200$ Pa, $W \times H < 3200 \times 3200$ mm. Tubular glazing beads: $p < 2000$ Pa, $W \times H < 3200 \times 3200$ mm.

5

5.1 Inward opening

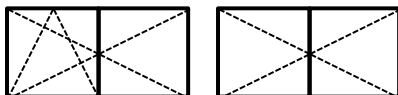


Characteristic		Performance		Notified body - Report	Limits (mm)	
Essential characteristics						
EN 14351-1	4.2	Resistance to wind load	C4 (1600 Pa) C5 (2000 Pa)	[0960] – 17.00889 Rev A [2211] - CXL 099/17	FbxFh < 1200x2800 FbxFh < 1300x1755 ⁽⁴⁾	
	4.5	Watertightness	E750 (750 Pa) E1200 (1200 Pa)	[0960] – 17.00889 Rev A [2211] - CXL 099/17	FbxFh < 1200x2800 FbxFh < 1300x1755	
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.			
	4.8	Load-bearing capacity of safety devices	Pass	0960] – 20.00012 rev A	FbxFh < 1200x2800	
	4.11	Acoustic performance	Glass: 34 (-1;-4) 42 (-1;-5) 50 (-2;-8) 40 (-1;-3) 45 (-2;-6) 47 (-1;-4) 49 (-2;-7) 52 (-1;-5)	Window: 36 (-1;-4) 40 (-2;-4) 42 (-2;-4) 38 (-1;-3) 43 (-2;-5) 44 (-1;-2) 45 (-1;-4) 46 (0;-2)	[1136] – AC 3724 [1136] – AC 3725 [1136] – AC 3726 [0960] – 17.01314 ⁽²⁾ [0960] – 17.01315 ⁽²⁾ [0960] – 17.01318 ⁽²⁾ [0960] – 17.01317 ⁽²⁾ [0960] – 17.01316 ⁽²⁾	WxH = 1230x1480
	4.12	Thermal transmittance	Uw to be calculated in function of the project. Pre-calculated U-values for dimensions 1230x1480mm and 1480x2180 can be found in the Uf-value tables. Uf-values are calculated under certification of BCCA: certificate BPCB-420-72-10077/2.			
	4.13	Radiation properties	These properties must be evaluated by the CE-label of the glass			
	4.14	Air permeability	4	[0960] – 17.00889 Rev A [2211] - CXL 099/17	FbxFh < 1200x2800 FbxFh < 1300x1755	
	Non-essential characteristics					
EN 14351-1	4.4.1	Reaction to fire	Anodized: A1 Painted: A2 Gaskets: E	EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6		
	4.7	Impact resistance	npd			
	4.16	Operating forces	1	[0960] – 10.135 ⁽¹⁾ 0960] – 20.00012 rev A	FbxFh < 1401x2396, 110 kg FbxFh < 1200x2800, 101 kg	
	4.17	Mechanical strength	4	[0960] – 10.135 ⁽¹⁾ 0960] – 20.00012 rev A	FbxFh < 1401x2396, 110 kg FbxFh < 1200x2800, 101 kg	
	4.18	Ventilation	npd			
	4.19	Bullet resistance (BP version)	FB4 FSG Kalashnikov	ES-210614a ES-210722b ES-210722a	Remark: classes S or NS depending on ammunition	
	4.20	Explosion resistance	npd			
	4.21	Resistance to repeated opening and closing	3 (20 000)	[0960] – 10.135 ⁽¹⁾ 0960] – 20.00012 rev A	FbxFh < 1401x2396, 110 kg FbxFh < 1200x2800, 101 kg	
	4.22	Behaviour between different climates	npd			
	4.23	Burglar resistance (AP version)	RC2 RC3	[0960] – SKGIKOB.0837.0285.06 [1136] - CAR 12056	See report	

⁽¹⁾ Because of the same profile design, characteristics are based on test results for CS68

⁽²⁾ Valid for a fixed window

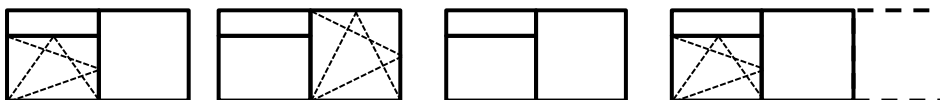
5.2 Inward opening



Characteristic		Performance	Notified body - Report	Limits (mm)	
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C3 (1200 Pa)	[0960] – 10.186	FbxFh < 1125x2258
	4.5	Watertightness	9A (600 Pa)	[0960] – 10.186	FbxFh < 1125x2258
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.		
	4.8	Load-bearing capacity of safety devices	Pass	0960] – 20.00012 rev A	FbxFh < 1200x2800
	4.11	Acoustic performance	npd		
	4.12	Thermal transmittance	Uw to be calculated in function of the project. Uf-values are calculated under certification of BCCA: certificate BPCB-420-72-10077/2.		
	4.13	Radiation properties	These properties must be evaluated by the CE-label of the glass		
	4.14	Air permeability	4	[0960] – 10.186	FbxFh < 1125x2258
Non-essential characteristics					
EN 14351-1	4.4.1	Reaction to fire	Anodized: A1 Painted: A2 Gaskets: E	EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6	
	4.7	Impact resistance	npd		
	4.16	Operating forces	1	[0960] – 09.1067 [0960] – 10.135 ⁽¹⁾	FbxFh < 1125x2258 FbxFh < 1401x2396, 110 kg
	4.17	Mechanical strength	4	[0960] – 09.1067 [0960] – 10.135 ⁽¹⁾	FbxFh < 1125x2258 FbxFh < 1401x2396, 110 kg
	4.18	Ventilation	npd		
	4.19	Bullet resistance (BP version)	npd		
	4.20	Explosion resistance	npd		
	4.21	Resistance to repeated opening and closing	2 (10 000) 3 (20 000)	[0960] – 09.1067 [0960] – 10.135 ⁽¹⁾	FbxFh < 1125x2258 FbxFh < 1401x2396, 110 kg
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	RC2	[0960] – SKGIKOB.0837.0285.06	See report

⁽¹⁾ Because of the same profile design, characteristics are based on test results for CS68

5.3 Inward opening



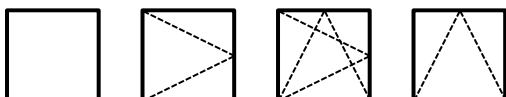
Characteristic		Performance	Notified body - Report	Limits (mm)	
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C4 (1600 Pa) ⁽¹⁾	[1488] – NL-0766/C/LL-219/K/08/1a	(3) (4)
	4.5	Watertightness	9A (600 Pa)	[1488] – NL-0766/C/LL-219/K/08/1a ⁽²⁾	(3)
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.		
	4.8	Load-bearing capacity of safety devices	See relevant test reports for opening parts		
	4.11	Acoustic performance	npd (See 6)		
	4.12	Thermal transmittance	U _w to be calculated in function of the project. U _f -values are calculated under certification of BCCA: certificate BPCB-420-72-10077/2.		
	4.13	Radiation properties	These properties must be evaluated by the CE-label of the glass		
	4.14	Air permeability	4	[1488] – NL-0766/C/LL-219/K/08/1a ⁽²⁾	(3)
Non-essential characteristics					
EN 14351-1	4.4.1	Reaction to fire	Anodized: A1 Painted: A2 Gaskets: E	EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6	
	4.7	Impact resistance	npd		
	4.16	Operating forces	See relevant test reports for opening parts		
	4.17	Mechanical strength	See relevant test reports for opening parts		
	4.18	Ventilation	npd		
	4.19	Bullet resistance (BP version)	npd		
	4.20	Explosion resistance	npd		
	4.21	Resistance to repeated opening and closing	See relevant test reports for opening parts		
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	RC2	[0960] – SKGIKOB.0837.0285.06	See report

⁽¹⁾ Deflection to be calculated in function of wind load and allowable deformation.

⁽²⁾ Test report proves the watertightness and air permeability of a T-connection.

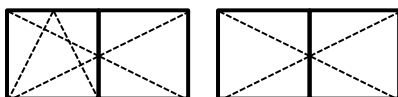
⁽⁴⁾ For dimensions of the opening parts: see relevant section for the opening elements.

5.4 Inward opening Hidden Vent



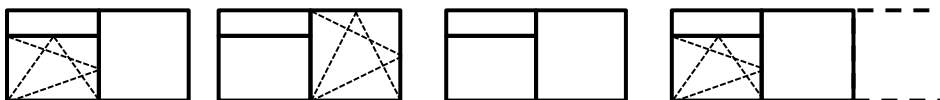
Characteristic		Performance		Notified body - Report	Limits (mm)	
Essential characteristics						
EN 14351-1	4.2	Resistance to wind load	C3/B4 (1200/1600Pa) C4 (1600 Pa) C4 (1600 Pa)	[1488] – LK-02344/09/3 [1488] – LK-02344/09/4 [1488] – NL-0766/C/LL-219/K/08/2a	FbxFh < 1250x1600 ⁽⁴⁾ FbxFh < 1008x1800 ⁽⁴⁾ FbxFh < 888x1758 ⁽⁴⁾	
	4.5	Watertightness	9A (600 Pa) 9A (600 Pa) E750 (750 Pa)	[1488] – LK-02344/09/3 [1488] – LK-02344/09/4 [1488] – NL-0766/C/LL-219/K/08/2a	FbxFh < 1250x1600 FbxFh < 1008x1800 FbxFh < 888x1758	
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.			
	4.8	Load-bearing capacity of safety devices	Pass		[1488] – LK-02344/09/3 [0960] – 09.1157	FbxFh < 1250x1600 FbxFh < 982x2283
	4.11	Acoustic performance	Glass: 34 (-1;-4) 41 (-2;-4) 48 (-2;-8) 51 (-1;-4)	Window: 34 (-1;-4) 39 (-1;-4) 47 (-3;-8) 46 (-1;-4)	[1488] – LA/1482_d1/07 [1488] – LA/1482_d2/07 [1488] – LA/1482_d3/07 [0757] – 14-002142-PR01	WxH = 1230x1480
	4.12	Thermal transmittance	Uw to be calculated in function of the project. Pre-calculated U-values for dimensions 1230x1480mm and 1480x2180 can be found in the Uf-value tables. Uf-values are calculated under certification of BCCA: certificate BPCB-420-72-10077/2.			
	4.13	Radiation properties	These properties must be evaluated by the CE-label of the glass			
	4.14	Air permeability	4		[1488] – LK-02344/09/3 [1488] – LK-02344/09/4 [1488] – NL-0766/C/LL-219/K/08/2a	FbxFh < 1250x1600 FbxFh < 1008x1800 FbxFh < 888x1758
Non-essential characteristics						
EN 14351-1	4.4.1	Reaction to fire	Anodized: A1 Painted: A2 Gaskets: E	EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6		
	4.7	Impact resistance	npd			
	4.16	Operating forces	1	[1488] – LK-02344/09/3 [0960] – 09.1157	FbxFh < 1250x1600 FbxFh < 982x2283, 108kg	
	4.17	Mechanical strength	4	[1488] – LK-02344/09/3 [0960] – 09.1157	FbxFh < 1250x1600 FbxFh < 982x2283, 108kg	
	4.18	Ventilation	npd			
	4.19	Bullet resistance (BP version)	npd			
	4.20	Explosion resistance	npd			
	4.21	Resistance to repeated opening and closing	3 (20.000)	[0960] – 09.1157	FbxFh < 982x2283, 108kg	
	4.22	Behaviour between different climates	npd			
	4.23	Burglar resistance (AP version)	RC2	[0960] – SKGIKOB.0837.0285.06	See report	

5.5 Inward opening Hidden Vent



Characteristic		Performance	Notified body - Report	Limits (mm)	
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C4 (1600 Pa)	[1488] – NL-0766/C/LL-219/K/08/2a	FbxFh < 888x1758
	4.5	Watertightness	E750 (750 Pa)	[1488] – NL-0766/C/LL-219/K/08/2a	FbxFh < 888x1758
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.		
	4.8	Load-bearing capacity of safety devices	Pass (350N/60s)	[1488] – LK-02344/09/3 [0960] – 09.1157	FbxFh < 1250x1600 FbxFh < 982x2283
	4.11	Acoustic performance	npd		
	4.12	Thermal transmittance	Uw to be calculated in function of the project. Pre-calculated U-values for dimensions 1230x1480mm and 1480x2180 can be found in the Uf-value tables. Uf-values are calculated under certification of BCCA: certificate BPCB-420-72-10077/2.		
	4.13	Radiation properties	These properties must be evaluated by the CE-label of the glass		
	4.14	Air permeability	4	[1488] – NL-0766/C/LL-219/K/08/2a	FbxFh < 888x1758
Non-essential characteristics					
EN 14351-1	4.4.1	Reaction to fire	Anodized: A1 Painted: A2 Gaskets: E	EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6	
	4.7	Impact resistance	npd		
	4.16	Operating forces	1	[0960] – 09.1157	FbxFh < 982x2283, 108kg
	4.17	Mechanical strength	4	[0960] – 09.1157	FbxFh < 982x2283, 108kg
	4.18	Ventilation	npd		
	4.19	Bullet resistance (BP version)	npd		
	4.20	Explosion resistance	npd		
	4.21	Resistance to repeated opening and closing	3 (20.000)	[0960] – 09.1157	FbxFh < 982x2283, 108kg
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	RC2	[0960] – SKGIKOB.0837.0285.06	See report

5.6 Inward opening Hidden Vent



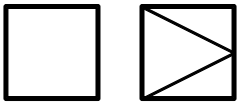
Characteristic		Performance	Notified body - Report	Limits (mm)	
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C3/B4 (1200/1600 Pa) ⁽¹⁾	[1488] - LK-02344/09/3	⁽³⁾ ⁽⁴⁾
	4.5	Watertightness	9A (600Pa)	[1488] - LK-02344/09/3 ⁽²⁾	⁽³⁾
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.		
	4.8	Load-bearing capacity of safety devices	See relevant test reports for opening parts		
	4.11	Acoustic performance	npd (See 6)		
	4.12	Thermal transmittance	Uw to be calculated in function of the project. Uf-values are calculated under certification of BCCA: certificate BPCB-420-72-10077/2.		
	4.13	Radiation properties	These properties must be evaluated by the CE-label of the glass		
	4.14	Air permeability	4	[1488] - LK-02344/09/3 ⁽²⁾	⁽³⁾
Non-essential characteristics					
EN 14351-1	4.4.1	Reaction to fire	Anodized: A1 Painted: A2 Gaskets: E	EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6	
	4.7	Impact resistance	npd		
	4.16	Operating forces	1	[1488] - LK-02344/09/3	⁽³⁾
	4.17	Mechanical strength	4	[1488] - LK-02344/09/3	⁽³⁾
	4.18	Ventilation	npd		
	4.19	Bullet resistance (BP version)	npd		
	4.20	Explosion resistance	npd		
	4.21	Resistance to repeated opening and closing	See relevant test reports for opening parts		
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	RC2	[0960] – SKGIKOB.0837.0285.06	See report

⁽¹⁾ Deflection to be calculated in function of wind load and allowable deformation.

⁽²⁾ Test report proves the watertightness and air permeability of a T-connection.

⁽³⁾ For dimensions of the opening parts: see relevant section for the opening elements.

5.7 Outward opening



Characteristic		Performance	Notified body - Report	Limits (mm)	
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C3 (1200 Pa)	TCD03_004 ⁽¹⁾	FbxFh < 698x1098 ⁽⁴⁾
	4.5	Watertightness	E1050 (1050 Pa)	TCD03_004 ⁽¹⁾	FbxFh < 698x1098
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.		
	4.8	Load-bearing capacity of safety devices	npd		
	4.11	Acoustic performance	npd (See 6)		
	4.12	Thermal transmittance	Uw to be calculated in function of the project. Uf-values are calculated under certification of BCCA: certificate BPCB-420-72-10077/2.		
	4.13	Radiation properties	These properties must be evaluated by the CE-label of the glass		
	4.14	Air permeability	4	TCD03_004 ⁽¹⁾	FbxFh < 698x1098
Non-essential characteristics					
EN 14351-1	4.4.1	Reaction to fire	Anodized: A1 Painted: A2 Gaskets: E	EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6	
	4.7	Impact resistance	npd		
	4.16	Operating forces	npd		
	4.17	Mechanical strength	npd		
	4.18	Ventilation	npd		
	4.19	Bullet resistance (BP version)	npd		
	4.20	Explosion resistance	npd		
	4.21	Resistance to repeated opening and closing	npd		
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	RC2	[0960] – SKGIKOB.0837.0285.06	See report

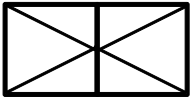
⁽¹⁾ Because of the same profile design, characteristics are based on test results for CS68

5.8 Outward opening



Characteristic		Performance	Notified body - Report	Limits (mm)	
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C5 (2000 Pa)	[1488] - LZE00-00948/18/R146NZE	FbxFh < 1000x1700
	4.5	Watertightness	9A (600 Pa)	[1488] - LZE00-00948/18/R146NZE	FbxFh < 1000x1700
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.		
	4.8	Load-bearing capacity of safety devices	npd		
	4.11	Acoustic performance	npd (See 6)		
	4.12	Thermal transmittance	U _f to be calculated in function of the project. U _f -values are calculated under certification of BCCA: certificate BPCB-420-72-10077/2.		
	4.13	Radiation properties	These properties must be evaluated by the CE-label of the glass		
	4.14	Air permeability	4	[1488] - LZE00-00948/18/R146NZE	FbxFh < 1000x1700
Non-essential characteristics					
EN 14351-1	4.4.1	Reaction to fire	Anodized: A1 Painted: A2 Gaskets: E	EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6	
	4.7	Impact resistance	npd		
	4.16	Operating forces	npd		
	4.17	Mechanical strength	npd		
	4.18	Ventilation	npd		
	4.19	Bullet resistance (BP version)	npd		
	4.20	Explosion resistance	npd		
	4.21	Resistance to repeated opening and closing	npd		
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	npd		

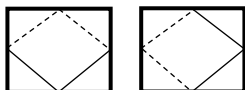
5.9 Outward opening



Characteristic		Performance	Notified body - Report	Limits (mm)	
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C3 (1200 Pa)	TCD03_004 ⁽¹⁾	FbxFh < 698x1098
	4.5	Watertightness	E1050 (1050 Pa)	TCD03_004 ⁽¹⁾	FbxFh < 698x1098
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.		
	4.8	Load-bearing capacity of safety devices	npd		
	4.11	Acoustic performance	npd		
	4.12	Thermal transmittance	Uw to be calculated in function of the project. Uf-values are calculated under certification of BCCA: certificate BPCB-420-72-10077/2.		
	4.13	Radiation properties	These properties must be evaluated by the CE-label of the glass		
	4.14	Air permeability	4	TCD03_004 ⁽¹⁾	FbxFh < 698x1098
Non-essential characteristics					
EN 14351-1	4.4.1	Reaction to fire	Anodized: A1 Painted: A2 Gaskets: E	EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6	
	4.7	Impact resistance	npd		
	4.16	Operating forces	npd		
	4.17	Mechanical strength	npd		
	4.18	Ventilation	npd		
	4.19	Bullet resistance (BP version)	npd		
	4.20	Explosion resistance	npd		
	4.21	Resistance to repeated opening and closing	npd		
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	RC2	[0960] – SKGIKOB.0837.0285.06	See report

⁽¹⁾ Because of the same profile design, characteristics are based on test results for CS68

5.10 Pivot Window



Characteristic		Performance	Notified body - Report	Limits (mm)	
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C4 (1600 Pa)	[1488] – 00948-14-R79NK [0960] – 03.154	FbxFh < 2200x2000 ^(*) FbxFh < 1490x1640
	4.5	Watertightness	9A (600 Pa)	[1488] – 00948-14-R79NK [0960] – 03.154	FbxFh < 2200x2000 ^(*) FbxFh < 1490x1640
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.		
	4.8	Load-bearing capacity of safety devices	npd		
	4.11	Acoustic performance	npd (See 6)		
	4.12	Thermal transmittance	U _w to be calculated in function of the project. Pre-calculated U-values for dimensions 1230x1480mm and 1480x2180 can be found in the U _f -value tables. U _f -values are calculated under certification of BCCA: certificate BPCB-420-72-10077/2.		
	4.13	Radiation properties	These properties must be evaluated by the CE-label of the glass		
	4.14	Air permeability	4	[1488] – 00948-14-R79NK [0960] – 03.154	FbxFh < 2200x2000 ^(*) FbxFh < 1490x1640
Non-essential characteristics					
EN 14351-1	4.4.1	Reaction to fire	Anodized: A1 Painted: A2 Gaskets: E	EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6	
	4.7	Impact resistance	npd		
	4.16	Operating forces	npd		
	4.17	Mechanical strength	npd		
	4.18	Ventilation	npd		
	4.19	Bullet resistance (BP version)	npd		
	4.20	Explosion resistance	npd		
	4.21	Resistance to repeated opening and closing	npd		
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	RC2	[0960] – 20.00776.1	See report

(*) Vertical Pivot Window

6 INFORMATION ACOUSTIC PERFORMANCE

6.1 Window R_w (C;Ctr) declaration based on tabulated values

According to annex B of EN 14351-1, when no test results are available, the determination of the acoustic performances can be done as follows:

a) IGU R_w → Window R_w

IGU R_w (dB)	Window R_w (dB)	Required seals
27	30	1
28	31	1
29	32	1
30	33	1
32	34	1
34	35	1
36	36	2
38	37	2
40	38	2

b) IGU R_w+C_{tr} → Window R_w+C_{tr}

IGU R_w+C_{tr} (dB)	Window R_w+C_{tr} (dB)	Required seals
24	26	1
25	27	1
26	28	1
27	29	1
28	30	1
30	31	1
32	32	2
34	33	2
36	34	2

c) $C = -1$ dB

d) $C_{tr} = (\text{Window } R_w+C_{tr}) - (\text{Window } R_w)$

⇒ CE marking Window: R_w (C;Ctr) based on steps a), c) and d)

Example:

IGU $R_w = 34$ (-1;-4)

→ Window $R_w = 35$ dB

→ IGU $R_w+C_{tr} = 30$ dB → Window $R_w+C_{tr} = 31$ dB

→ $C = -1$ dB

→ $C_{tr} = 31$ dB – 35 dB = -4 dB

► CE marking Window: 35 dB (-1;-4), valid for window size 1,23 x 1,48 m

6.2 Extrapolation rules for different window sizes

For windows with other dimensions, the extrapolation rules for test results and tabulated values are indicated in following table:

Window size range		Sound insulation value for window
Test results for test specimen of any size (see 5)	Tabulated values (see 6.1)	
-100% to +50% of test specimen overall area	overall area $\leq 2,7 \text{ m}^2$	Rw and Rw+Ctr are correct
+50% to +100% of test specimen overall area	$2,7 \text{ m}^2 < \text{overall area} \leq 3,6 \text{ m}^2$	Correct Rw and Rw+Ctr with -1 dB
+100% to +150% of test specimen overall area	$3,6 \text{ m}^2 < \text{overall area} \leq 4,6 \text{ m}^2$	Correct Rw and Rw+Ctr with -2 dB
> +150% of test specimen overall area	$4,6 \text{ m}^2 < \text{overall area}$	Correct Rw and Rw+Ctr with -3 dB

UPDATES

22/4/2022

THW added: variant 5.8

Report 20.00012 rev A added in variants 5.1 and 5.2: characteristics 4.8 - 4.16 - 4.17 – 4.21

Reports ES-210614a, ES-210722b and ES-210722a added in variant 5.1: characteristic 4.19

Report SKGIKOB.0837.0285.06 added in several variants: characteristic 4.23

Report CAR 12056 added in variant 5.1: characteristic 4.23

Report 20.00776.1 added in variant 5.10: characteristic 4.23

Certificate EFR-21-001664A added in all variants: characteristic 4.4.1