

# MasterLine 8 Windows

PRODUCT PASS

Date: **29-03-2024**

Language: **English**



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## 1 GENERAL EXPLANATION

The performances indicated in this product pass can be used for a Declaration of Performance (DoP) in accordance with EU Regulation no. 305/2011. The characteristics are in accordance with the harmonized product standard EN 14351-1:2006+A2:2016 (Windows and doors - Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets).

At least one performance of an essential characteristic shall be mentioned on the DoP. Non-essential characteristics are not legally required in any European country and thus not mandatory to declare. Where no performance is declared "NPD" (No Performance Declared) can be used.

The performances indicated can be achieved for the configuration and dimensions as tested and when the product is fabricated in accordance with the instructions of Reynaers (system catalogue). It is obviously allowed to declare lower performances; e.g. when resistance to wind load of 1600 Pa was tested, also 1200 Pa can be declared for the same configuration and dimensions.

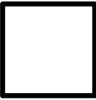

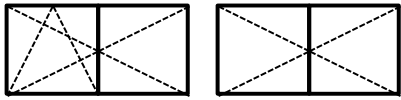
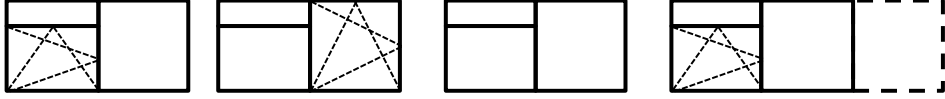
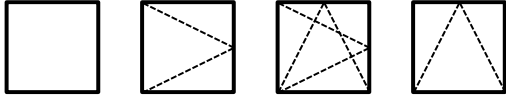
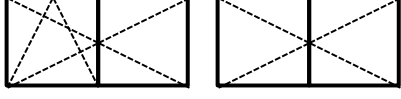
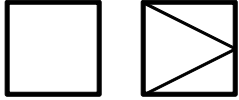
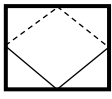
Higher performances for smaller dimensions, lower performances for larger dimensions, or similar performances for larger dimensions but with the appropriate selection of profiles and/or reinforcements are possible. Validate your performances and deflections, adhering to the maximum admissible dimensions indicated in the system catalogue.



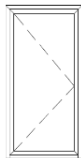
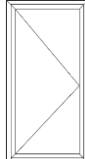
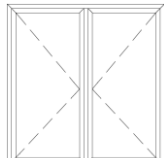
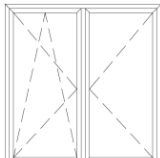
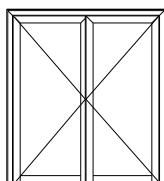
## 2 NOTIFIED BODIES

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

<b>Fixed window</b>	
5.1	
<b>Inward opening</b>	
5.2	
5.3	
5.4	
<b>Inward opening Hidden Vent</b>	
5.5	
5.6	
<b>Outward opening</b>	
5.7	
<b>Pivot Window</b>	
5.8	

Ventilation vent	
5.9	
Balcony doors	
5.10	 
5.11	
5.12	 
5.13	

## 4 EXPLANATIONS AND SYMBOLS

H: Element Height

B: Element Width

Fh: Vent Height

Fb: Vent Width

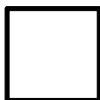
npd: No Performance Declared

CWFT: Classification Without Further Testing

<sup>(3)</sup> Fixed windows: Tubular glazing beads:  $p < 2000$  Pa,  $W \times H < 3200 \times 3200$  mm; Standard glazing beads:  $p < 800$  Pa,  $W \times H < 3200 \times 3200$  mm;  $p < 1600$  Pa,  $W \times H < 1400 \times 2400$ .

## 5 PERFORMANCE

### 5.1 Fixed window



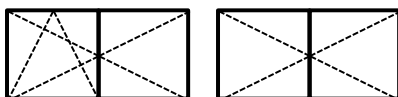
Characteristic			Performance		Notified body - Report		Tested size [mm]
Essential characteristics							
EN 14351-1	4.2	Resistance to wind load	C5 (2000 Pa) <sup>(3)</sup>		[0960] – 16.00925		3200x3200
	4.5	Watertightness	E1200 (1200 Pa)		[0960] – 16.00925		3200x3200
	4.6	Dangerous substances	In the materials 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	Glass: 40 (-1;-3) 45 (-2;-6) 51 (-1;-2)	Window: 38 (-2;-4) 43 (-1;-5) 50(-1;-2)	[0960] – 17.01337.1 [0960] – 17.01337.2 [0757] – 16-002449-PR01		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] – 16.00925		3200x3200
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	5		[1488] – LZE00-00948/19/R161NZE		1146x2946
	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)	WK2 / RC2 RC3		[1309] – 23-1/16.119 [1136] – CAR-19-215		See report

## 5.2 Inward opening



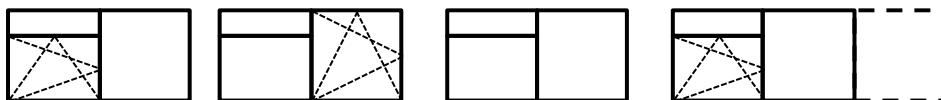
Characteristic			Performance		Notified body - Report		Tested size [mm]	
Essential characteristics								
EN 14351-1	4.2	Resistance to wind load	C4 (1600 Pa) C5 (2000 Pa) C5 (2000 Pa)		[1488] – LZE00-00948/19/R161NZE [2211] – CXL 086/16 [1488] – LZE00-00948/20/R172NZE		1146x2946 1200x2800 1350x2400	
	4.5	Watertightness	E1050 (1050 Pa) E900 (900 Pa) E1650 (1650 Pa)		[1488] – LZE00-00948/19/R161NZE [2211] – CXL 086/16 [1488] – LZE00-00948/20/R172NZE		1146x2946 1200x2800 1350x2400	
	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] – 16.00655		1300x2400	
	4.11	Acoustic performance	Glass: 36 (-1;-5) 38 (-1;-3) 39 (-2;-7) 41 (-2;-7) 47 (-2;-6) 47 (-2;-6)	Window: 37 (-2;-5) 39 (-1;-4) 41 (-1;-4) 42 (-2;-5) 44 (-1;-3) 46 (-1;-3)	[0960] – 21.01222.1 [0960] – 21.01222.4 [0960] – 18.00632.5 [0960] – 18.00632.9 [0960] – 18.00632.7 [0960] – 18.00632.6		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] – LZE00-00948/19/R161NZE [2211] – CXL 086/16 [1488] – LZE00-00948/20/R172NZE		1146x2946 1200x2800 1350x2400	
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	5		[1488] – LZE00-00948/19/R161NZE		1146x2946	
	4.16	Operating forces	0 1		[0960] – 16.00655 [0960] – 23.00206		1300x2400, 119 kg 1200x2800, 145 kg	
	4.17	Mechanical strength	4		[0960] – 16.00655 [0960] – 23.00206.1		1300x2400, 119 kg 1200x2800, 145 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	3 (20.000)		[0960] – 16.00655 [0960] – 23.00206		1300x2400, 119 kg 1200x2800, 145 kg	
	4.22	Behaviour between different climates	npd					
4.23	Burglar resistance (AP version)	WK2 / RC2 RC3		[1309] – 23-1/16.119 [1136] – CAR-19-215		See report		

## 5.3 Inward opening



Characteristic			Performance		Notified body - Report	Tested size [mm]
Essential characteristics						
EN 14351-1	4.2	Resistance to wind load	<b>C3</b> (1200 Pa) <b>C4</b> (1600 Pa) <b>C5</b> (2000 Pa)		[0960] – 20.00747 [0960] – 19.00347 [2211] – CXL 087/16	1200x2800 888x1383 1000x1900
	4.5	Watertightness	<b>9A</b> (600 Pa) <b>E750</b> (750 Pa) <b>E900</b> (900 Pa)		[0960] – 20.00747 [0960] – 19.00347 [2211] – CXL 087/16	1200x2800 888x1383 1000x1900
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.			
	4.8h	Load-bearing capacity of safety devices	Pass		[0960] – 16.00655	1300x2400
	4.11	Acoustic performance	Glass: <b>40(-1;-3)</b> <b>45(-2;-6)</b> <b>52(-1;-5)</b>	Window: <b>38(-2;-5)</b> <b>42(-2;-5)</b> <b>44(-2;-4)</b>	[0960] – 18.00013.1 [0960] – 18.00013.2 [0960] – 18.00013.3	1230x1480
	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] – 20.00747 [0960] – 19.00347 [2211] – CXL 087/16	1200x2800 888x1383 1000x1900
Non-essential characteristics						
EN 14351-1	4.4.1	Reaction to fire	Anodized: <b>A1</b> Painted: <b>A2</b> Gaskets: <b>E</b>		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)	WK2 / RC2		[1309] – 23-1/16.119	See report

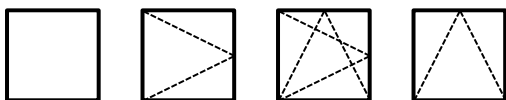
## 5.4 Inward opening



Characteristic			Performance	Notified body - Report	Tested size [mm]
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	<b>B4</b> (1600 Pa) <sup>(1)</sup> <b>C5</b> (2000 Pa)	[0960] – 15.00475 [0960] – 20.01672 <sup>(5)</sup>	(3) (4)
	4.5	Watertightness	<b>9A</b> (600 Pa) <b>E1500</b> (1500 Pa)	[0960] – 15.00475 <sup>(2)</sup> [0960] – 20.01672 <sup>(5)</sup>	(3) (4)
	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	<b>4</b>	[0960] – 15.00475 <sup>(2)</sup> [0960] – 20.01672 <sup>(5)</sup>	(4)
Non-essential characteristics					
EN 14351-1	4.4.1	Reaction to fire	Anodized: <b>A1</b> Painted: <b>A2</b> Gaskets: <b>E</b>	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)	<b>WK2 / RC2</b> <b>RC3</b>	[1309] – 23-1/16.119 [1136] – CAR-19-215	See report

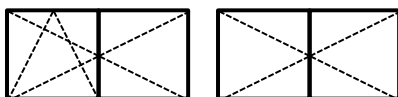
<sup>(1)</sup> Deflection to be calculated in function of wind load and allowable deformation.<sup>(2)</sup> Test report proves the watertightness and air permeability of a T-connection.<sup>(4)</sup> For dimensions of the opening parts: see relevant section for the opening elements.<sup>(5)</sup> Fixed window with ventilation vent

## 5.5 Inward opening Hidden Vent



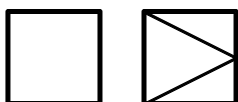
Characteristic			Performance		Notified body - Report	Tested size [mm]
Essential characteristics						
EN 14351-1	4.2	Resistance to wind load	<b>C3</b> (1200 Pa) <b>C4</b> (1600 Pa)		[0960] – 20.00189 [0960] – 17.01119	1200x2800 1000x2000
	4.5	Watertightness	<b>E750</b> (750 Pa) <b>E1200</b> (1200 Pa)		[0960] – 20.00189 [0960] – 17.01119	1200x2800 1000x2000
	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	<b>Pass</b>		[0960] - 17.00334	1200x2400
	4.11	Acoustic performance	Glass: <b>40</b> (-1;-3) <b>46</b> (-2;-5) <b>52</b> (-1;-5) <b>52</b> (-1;-5)	Window: <b>39</b> (-2;-6) <b>43</b> (-1;-4) <b>47</b> (-2;-5) <b>49</b> (-1;-5)	[0757] – 17-000141-PR01 (PB Z08-A01-04-en-02) [0757] – 17-000141-PR01 (PB Z11-A01-04-en-02) [0757] – 17-000141-PR01 (PB Z10-A01-04-en-02) [0757] – 17-000141-PR01 (PB Z06-A01-04-en-02)	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	<b>4</b>		[0960] – 20.00189 [0960] – 17.01119	1200x2800 1000x2000
Non-essential characteristics						
EN 14351-1	4.4.1	Reaction to fire	Anodized: <b>A1</b> Painted: <b>A2</b> Gaskets: <b>E</b>		EC decision 96/603/EC certificate EFR-21-001664A [0432] – 230006500-6	
	4.7	Impact resistance	<b>4</b>		[0960] - 17.00689	1000x2000
	4.16	Operating forces	<b>0</b>		[0960] - 17.00299	1200x2800, 154 kg
	4.17	Mechanical strength	<b>4</b>		[0960] - 17.00334	1200x2400, 154 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	<b>3</b> (20.000)		[0960] - 17.00299	1200x2800, 154 kg
	4.22	Behaviour between different climates	npd			
	4.23	Burglar resistance (AP version)	<b>RC2</b>		[0960] - 17.00207	See report

## 5.6 Inward opening Hidden Vent



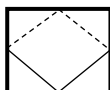
Characteristic			Performance	Notified body - Report	Tested size [mm]
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C3 (1200 Pa)	[0960] - 17.00367	1000x2000
	4.5	Watertightness	9A (600 Pa)	[0960] - 17.00367	1000x2000
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.		
	4.8	Load-bearing capacity of safety devices	Pass	[0960] - 17.00334	1200x2400
	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] - 17.00367	1000x2000
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] - 17.00207	See report

## 5.7 Outward opening



Characteristic			Performance		Notified body - Report		Tested size [mm]	
Essential characteristics								
EN 14351-1	4.2	Resistance to wind load	<b>C4</b> (1600 Pa) <b>C5</b> (2000 Pa)		[0960] – 16.00607 [0960] – 21.00239		1300x2300 1200x1800	
	4.5	Watertightness	<b>E900</b> (900 Pa)		[0960] – 16.00607 [0960] – 21.00239		1300x2300 1200x1800	
	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	Glass <b>34 (-1;-5)</b> <b>37 (-2;-6)</b> <b>42 (-1;-4)</b> <b>51 (-1;-2)</b>	Window <b>36 (-2;-5)</b> <b>38 (-2;-5)</b> <b>41 (-2;-4)</b> <b>40 (0;-1)</b>	[0960] – 21.01223.3 [0960] – 21.01223.5 [0960] – 21.01223.7 [0960] – 18.00295.3		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	<b>4</b>		[0960] – 16.00607 [0960] – 21.00239		1300x2300 1200x1800	
Non-essential characteristics								
EN 14351-1	4.4.1	Reaction to fire	Anodized: <b>A1</b> Painted: <b>A2</b> Gaskets: <b>E</b>		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)	<b>RC2</b>		[0960] – 22.00374		See report	

## 5.8 Pivot Window



Characteristic			Performance		Notified body - Report		Tested size [mm]	
Essential characteristics								
EN 14351-1	4.2	Resistance to wind load	C4 (1600 Pa)		[0960] – 14.00567 <sup>(6)</sup>		2460x2460	
	4.5	Watertightness	9A (600 Pa)		[0960] – 14.00567 <sup>(6)</sup>		2460x2460	
	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	Glass 40 (-1;-3) 45 (-2;-6) 50 (-3;-8)	Window 38 (-1;-4) 40 (-1;-3) 41 (-1;-3)	[0960] – 14.00986-1 <sup>(6)</sup> [0960] – 14.00986-2 <sup>(6)</sup> [0960] – 14.00986-3 <sup>(6)</sup>		1230x1480	
	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] – 14.00567 <sup>(6)</sup>		2460x2460	
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] – 14.00703 <sup>(6)</sup>		2500x2500, 191kg	
	4.17	Mechanical strength	4		[0960] – 14.00703 <sup>(6)</sup>		2500x2500, 191kg	
	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] – 14.00703 <sup>(6)</sup>		2500x2500, 191kg	
	4.22	Behaviour between different climates	npd					
	4.23	Burglar resistance (AP version)	npd					

<sup>(6)</sup> Because of the same profile design, characteristics are based on test results for CS 86-HI

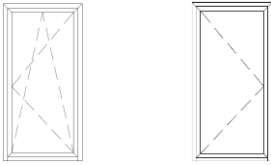
## 5.9 Ventilation vent



Characteristic			Performance	Notified body - Report	Tested size [mm]
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C5 (2000 Pa)	[1488] - LZE00-00948/16/R115NZE [0960] – 20.01672 <sup>(1)</sup>	250x2746
	4.5	Watertightness	E1500 (1500 Pa)	[1488] - LZE00-00948/16/R115NZE [0960] – 20.01672 <sup>(1)</sup>	250x2746
	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] – 16.00495	304x2800
	4.11	Acoustic performance	30 (-1;-3) 41 (-1;-4) 44 (-1;-4) 45 (-1;-4)	[1136] – AC7974 [1136] – AC7970 [1136] – AC7968 [1136] – AC7969	304x2150
	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	npd		
	4.14	Air permeability	4	[1488] - LZE00-00948/16/R115NZE [0960] – 20.01672 <sup>(1)</sup>	250x2746
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] – 16.00495	304x2800, 15 kg
	4.17	Mechanical strength	4	[0960] – 16.00495	304x2800, 15 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	3 (20.000)	[0960] – 16.00495	304x2800, 15 kg
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	RC2	[0960] – 21.01345 [0960] – 21.01345.1	See report

<sup>(1)</sup> Fixed window with ventilation vent

## 5.10 Balcony doors / Single-inward opening

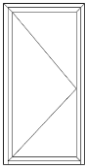


Characteristic			Performance	Notified body - Report	Tested size [mm]
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C3 (1200 Pa)	[0960] – 19.00538 [0960] - 18.00691	1200x2800 970x2367
	4.5	Watertightness	9A (600 Pa) E900 (900 Pa)	[0960] – 19.00538 [0960] - 18.00691	1200x2800 970x2367
	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] – 19.00339 <sup>(4)</sup> [0960] – 19.00340 <sup>(5)</sup>	1200x2000
	4.11	Acoustic performance	npd		
	4.12	Thermal transmittance	Ud to be calculated in function of the project. Pre-calculated U-values for dimensions 1230x2180mm 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] – 19.00538 [0960] - 18.00691	1200x2800 970x2367
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	5	[1488] – LZE00- 00948/19/R161NZE	1146x2946
	4.16	Operating forces	1	[0960] – 19.00339 <sup>(4)</sup> [0960] – 19.00340 <sup>(5)</sup>	1200x2000, 127 kg
	4.17	Mechanical strength	4	[0960] – 19.00339 <sup>(4)</sup> [0960] – 19.00340 <sup>(5)</sup>	1200x2000, 127 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	3 (20.000) 5 (100.000)	[0960] – 19.00339 <sup>(4)</sup> [0960] – 19.00340 <sup>(5)</sup>	1200x2000, 127 kg
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	RC2	22-27/10.120	See report

<sup>(4)</sup> Tested and classified as a window (EN 13115)

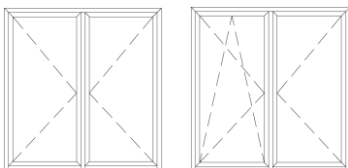
<sup>(5)</sup> Tested and classified as a door (EN 12217)

## 5.11 Balcony doors / Single-outward opening



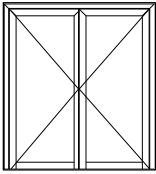
Characteristic			Performance	Notified body - Report	Tested size [mm]
Essential characteristics					
EN 14351-1	4.2	Resistance to wind load	C3 (1200 Pa)	[0960] - 18.00803 rev A	970x2367
	4.5	Watertightness	E1350 (1350 Pa)	[0960] - 18.00803 rev A	970x2367
	4.6	Dangerous substances	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN 14351-1 are used.		
	4.8	Load-bearing capacity of safety devices	Pass	[0960] – 20.00217	839x2360
	4.11	Acoustic performance	npd		
	4.12	Thermal transmittance	Ud to be calculated in function of the project. Pre-calculated U-values for dimensions 1230x2180mm 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] - 18.00803 rev A	970x2367
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] – 20.00217	839x2360, 121 kg
	4.17	Mechanical strength	2	[0960] – 20.00217	839x2360, 121 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	3 (20.000)	[0960] – 20.00217	839x2360, 121 kg
	4.22	Behaviour between different climates	npd		
	4.23	Burglar resistance (AP version)	npd		

## 5.12 Balcony doors / Double-inward opening



Characteristic			Performance		Notified body - Report		Tested size [mm]	
Essential characteristics								
EN 14351-1	4.2	Resistance to wind load	C3 (1200 Pa)		[0960] – 18.01041 [0960] – 19.00248		970x2368 970x2367	
	4.5	Watertightness	7A (300 Pa) 9A (600 Pa)		[0960] – 18.01041 [0960] – 19.00248		970x2368 970x2367	
	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] – 19.00339 <sup>(4)</sup> [0960] – 19.00340 <sup>(5)</sup>		1200x2000	
	4.11	Acoustic performance	Glass 41 (-2;-4) 45 (-2;-6) 52 (-1;-5) 50 (-2;-8)	Window 39 (-2;-4) 41 (-1;-4) 42 (0;-2) 43 (-1;-4)	[1136] – AC-19-038-04 [1136] – AC-19-038-03 [1136] – AC-19-038-01 [1136] – AC-19-038-02		970x2367	
	4.12	Thermal transmittance	Ud to be calculated in function of the project. Pre-calculated U-values for dimensions 1230x2180mm 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] – 18.01041 [0960] – 19.00248		970x2368 970x2367	
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	5		[1488] – LZE00-00948/19/R161NZE		1146x2946	
	4.16	Operating forces	1		[0960] – 19.00339 <sup>(4)</sup> [0960] – 19.00340 <sup>(5)</sup>		1200x2000, 127 kg	
	4.17	Mechanical strength	4		[0960] – 19.00339 <sup>(4)</sup> [0960] – 19.00340 <sup>(5)</sup>		1200x2000, 127 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	3 (20.000) 5 (100.000)		[0960] – 19.00339 <sup>(4)</sup> [0960] – 19.00340 <sup>(5)</sup>		1200x2000, 127 kg	
	4.22	Behaviour between different climates	npd					
	4.23	Burglar resistance (AP version)	RC2		22-27/10.120		See report	

## 5.13 Balcony doors / Double-outward opening



Characteristic			Performance		Notified body - Report	Tested size [mm]	
Essential characteristics							
EN 14351-1	4.2	Resistance to wind load	C4 (1600 Pa)		[0960] – 20.00108	970x2367	
	4.5	Watertightness	E900 (900 Pa)		[0960] – 20.00108	970x2367	
	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] – 20.00217	839x2360	
	4.11	Acoustic performance	Glass 41 (-2;-4) 45 (-2;-6) 52 (-1;-5) 50 (-2;-8)	Window 39 (-2;-4) 41 (-1;-4) 42 (0;-2) 43 (-1;-4)	[1136] – AC-19-038-04 [1136] – AC-19-038-03 [1136] – AC-19-038-01 [1136] – AC-19-038-02	970x2367	
	4.12	Thermal transmittance	Ud to be calculated in function of the project. Pre-calculated U-values for dimensions 1230x2180mm 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] – 20.00108	970x2367	
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] – 20.00217	839x2360, 121 kg	
	4.17	Mechanical strength	2		[0960] – 20.00217	839x2360, 121 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	3 (20.000)		[0960] – 20.00217	839x2360, 121 kg	
	4.22	Behaviour between different climates	npd				
	4.23	Burglar resistance (AP version)	npd				

## 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 $R_w \rightarrow$ Window $R_w$

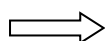
IGU $R_w$ (dB)	Window $R_w$ (dB)	Required seals
27	30	1
28	31	1
29	32	1
30	33	1
32	34	1
34	35	1
36	36	2
38	37	2
40	38	2

#### b) IGU $R_w+C_{tr} \rightarrow$ 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)

$\rightarrow$  Window  $R_w = 35$  dB

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

$\rightarrow C = -1$  dB

$\rightarrow C_{tr} = 31$  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

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### 08/05/2023

	VARIANTS	Characteristic
18.00632.5, 9, 7, 6	5.2	4.11

### 09/12/2022

	VARIANTS	Characteristic
Pivot Window	5.8	

### 22/4/2022

	VARIANTS	Characteristic
EFR-21-001664A	5.1 ~ 5.11	4.4.1
21.01222.1, 4 and 9	5.2	4.11
21.01223.3, 5 and 7	5.7	4.11
LZE00-0948/19/R161NZE	5.11	4.7
19.00339 + 19.00340	5.11	4.8 – 4.16 - 4.17 – 4.21

### 03/10/2023

	VARIANTS	Characteristic
Text revision	GENERAL EXPLANATION	
Tested size [mm]	5.1 – 5.13	
22.00374	5.7	4.23
23.00206	5.2	4.16 + 4.21
23.00206.1	5.2	4.17

### 29/03/2024

	VARIANTS	Characteristic
21.01345 + 21.01345.1	5.9	4.23