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For over 50 years, Reynaers Aluminium has been designing cutting-edge glazing solutions for some of the most iconic buildings in the world. Engineered without compromise, our range of aluminium windows, doors and curtain wall systems have been specified time and again by the world's leading architects and construction companies.

Reynaers Aluminium is recognised globally for the premium quality of its products. To help us maintain this reputation, we have invested in a world-class design and testing facility. When you choose Reynaers Aluminium products, you can rest assured that you are choosing a product that will not only look great, but will also offer industry-leading performance and reliability.

TOGETHER FOR BETTER

This is our motto. We want to be a true business partner, sharing our worldwide knowledge with fabricators, architects and other stakeholders. With our open and proactive collaboration approach we can realize the highest standards and get the best results in any project, big or small, together.

READY FOR THE FUTURE

Reynaers Aluminium is the market leader in Belgium and we have acquired a strong market position in over 40 countries, each with its own offices.





The Reynaers Campus is the corporate headquarters of the Reynaers Group in Duffel (Belgium). The Reynaers Campus is the inspiring and dynamic work environment of all Reynaers Aluminium employees and a place for partners to experience the latest products and innovations in full interactivity.

At the Reynaers Campus, you can visit the Experience Centre that is designed to bring people together and inspire you with our latest solutions and state-of-the-art technologies for architectural building solutions. In the Experience Room, you can discover our unique offering, assisted by inspiring digital applications. For a full immersive experience, a visit to AVALON can be booked where you can visit future buildings through a shared virtual reality experience.

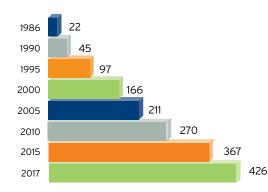


In addition to these facilities, the Reynaers Campus also includes the Technology Centre, the largest privately owned innovation and testing centre, for the validation of architectural and high-tech window, door and facade concepts. One of the showpieces of the Technology centre is a state-of-the-art testing wall for facades with a height of 15 meters, allowing air-wind-water testing of multi-storey facades. This part of the Reynaers Campus also accommodates the 'R-Lab'; our dedicated lab for prototyping and 3D printing, resulting in faster and more accurate R & D tracks.

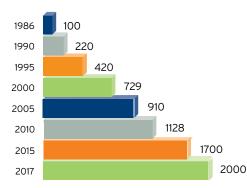
IMPRESSIVE GROWTH

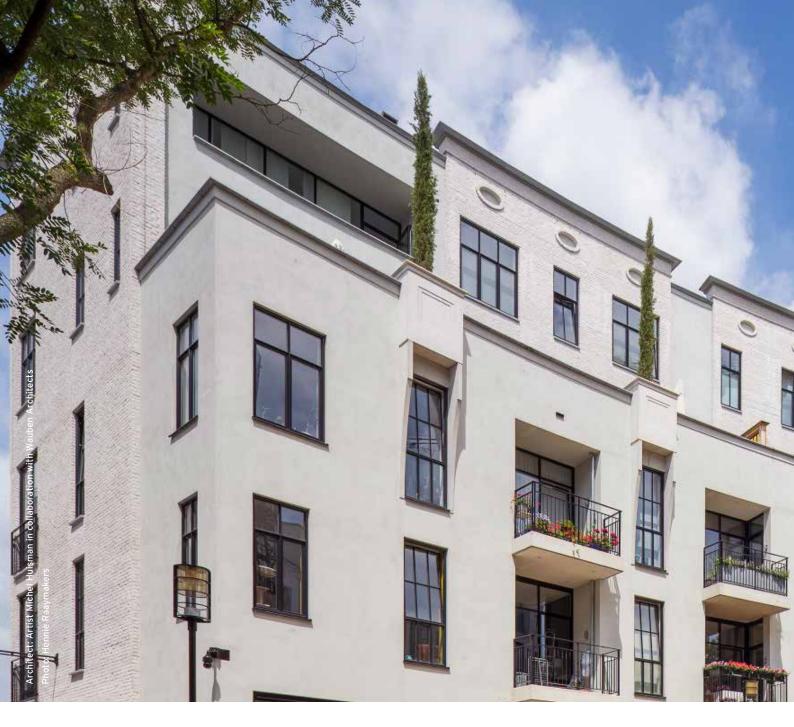
The Reynaers Group has experienced massive growth in the last 30 years. Having grown more than 200% over the last 10 years, Reynaers Aluminium is considered by all players in the industry as one of the leaders in its business. In 2017 the Reynaers Group achieved a turnover of over 426 million euros and has nearly 2000 employees throughout the world.

Turnover (in million eur)



Employees







MasterLine 10



CS 77



MasterLine 8



CS 68



Sensity



ES 50





SlimLine 68



SlimLine 38



CS 24-SL



CS 59Pa



ES 45Pa

DECISION MATRIX

Windows & Doors



WINDOW MATRIX	MasterLine 10	MasterLine 8	Sensity	CS 77	CS 68	ES 50	SlimLine 68	SlimLine 38	CS 24-SL	CS 59Pa	ES 45Pa
FUNCTIONAL											
HIDDEN VENT											
RENAISSANCE											
DECO											
CUBIC											
FERRO											
CLASSIC											
SOFTLINE											





		MasterLine 10	MasterLine 8	Sensity	CS 77
SAFET	TY VARIANTS				
%	Burglary Proof				
	Fire Proof				
	Bullet Proof				
*	Smoke leakage control				
SUSTA	AINABILITY				
	High Insulation				
	Passive Housing Certificate		(1)		
	Ventalis				
MINIM	IAL VISIBLE WIDTH FRAME/VE	NT			
	Window	104 mm	97 mm	117 mm	89 mm
	Door	119 mm ⁽²⁾	153 mm	/	150 mm
PERF	ORMANCES				
	Insulation smallest frame/vent section (Uf-value ≥)	1.0 W/m²K	1.4 W/m²K	1.4 W/m²K	1.9 W/m²K
(26)	Air tightness Class (value in Pa)	4 (600 Pa)	4 (600 Pa)	4 (600 Pa)	4 (600 Pa)
P	Wind load resistance Class (value in Pa)	C5 (2000 Pa)	C5 (2000 Pa)	C5 (2000 Pa)	C5 * (2000 Pa)
	Water tightness Class (value in Pa)	E900 (900 Pa)	E900 (900 Pa)	9A (600 Pa)	E900 (900Pa)

⁽¹⁾ Panel door only (2) Windowdoor (3) Outside opening only (4) Dutch standard only



CS 77-FP	CS 77-BP	CS 68	ES 50	SL 68	SL 38	CS 24-SL	CS 59Pa	ES 45Pa
					(4)			
			<u> </u>	I.	1			I
				1				I
/	/	89 mm	86 mm	65 mm	67 mm	50 mm	85 mm	84 mm
150 mm	150 mm	149 mm	146 mm	/	101.5 mm	103 mm ⁽³⁾	139 mm	115 mm
3.1 W/m²K	2.3 W/m²K	2.4 W/m²K	2.6 W/m²K	2.5 W/m²K	1.9 W/m²K	3.6 W/m²K	-	-
					·			
2 (300 Pa)	4 (600 Pa)	4 (600 Pa)	4 (600 Pa)	3 (600 Pa)	4 (600 Pa)	4 (600 Pa)	4 (600 Pa)	4 (600 Pa)
C2 (300 Pa)	C5 (2000 Pa)	C5 (2000 Pa)	C4 (1600 Pa)	C4 (1600 Pa)	C4 (1600 Pa)	C3 (1200 Pa)	C5 (2000 Pa)	C2400 (2400 Pa)
7A (300 Pa)	9A (600 Pa)	E1200 (1200 Pa)	E750 (750 Pa)	9A (600 Pa)	9A (600 Pa)	E750 (750 Pa)	9A (600 Pa)	E900 (900 Pa)



WINDOWS	MasterLine 10	MasterLine 8	Sensity	CS 77	CS 68	ES 50	SL 68	SL 38	CS 24-SL	CS 59Pa	ES 45Pa
			*								

^{*} CS 86-HI Solution



DOORS	MasterLine 10	MasterLine 8	Sensity	CS 77	CS 77-FP	CS 77-BP	CS 68	ES 50	SL 68	SL 38	CS 24-SL	CS 59Pa	ES 45Pa

MasterLine 10

Windows

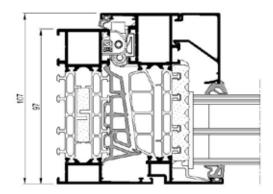












No compromise

No need to compromise: with MasterLine 10 you can have it all. This new system unites the best of all worlds: unlimited design freedom combined with ultimate comfort and optimal insulation performance.

MasterLine 10 windows are designed for the building trends of today and tomorrow: low energy building, maximum daylight access, superb performance and safe homes (burglar resistance class 3).

The product offering of MasterLine 10 windows is truly unique in its applicability: inward opening windows, a full range of transoms and frames, connection profiles with Sliding and Curtain Wall systems, but also the design freedom that is offered with the Renaissance and Deco profile range.

The windows are offered with a Passive House certificate!

The combination of all these features makes MasterLine 10 the ideal solution for domestic as well as public projects.



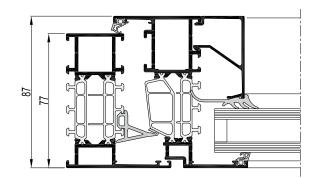






TECHNICAL CHARACTERISTICS		FUNCTIONAL	RENAISSANCE	DECO	
Min visiteta vialkla invocad anno incovinadov.	Frame	60 mm	60 mm	60 mm	
Min. visible width inward opening window	Vent	37 mm	37 mm	37 mm	
Min. visible width inward opening	Frame	60 mm	60 mm	60 mm	
window-door	Vent	67 mm	67 mm	67 mm	
Overall evertage death window	Frame	97 mm	107 mm	107 mm	
Overall system depth window	Vent	107 mm	107 mm	107 mm	
Rebate height		27 mm	27 mm	27 mm	
Glass thickness	Frame	up to 88 mm	up to 88 mm	up to 88 mm	
	Vent	up to 88 mm	up to 78 mm	up to 78 mm	

PERFORMANCES	
Thermal insulation	Uf-value down to 0.76 W/m²K depending on the frame/vent combination and the glass thickness.
Acoustic performance	Rw(C;Ctr) = 46 (-1; -4) dB
Air tightness	Up to 600 Pa (class 4+)
Wind load resistance	Up to 1600 Pa (class 4)
Water tightness	Up to 900 Pa (class E900)
Burglar resistance	Up to RC 3 (EN 1627)





MasterLine 8

Windows & Doors











Made to measure

MasterLine 8 combines a wide design range that offers countless design opportunities with first in class performance in terms of thermal insulation, air-and water-tightness, and production speed.

This new generation of innovative window and door solutions mirrors the current architectural trend towards maximising daylight while offering ultimate insulation levels. The MasterLine 8 panel door has even achieved Passivhaus certification.

MasterLine 8 meets the demands of building professionals who value excellent performance, durability, comfort, productivity and sustainability.









TECHNICAL CHARACTERISTICS		FUNCTIONAL	RENAISSANCE	DECO	HIDDEN VENT
Min visible width invested an arise window	Frame	53 mm	53 mm	53 mm	80 mm
Min. visible width inward opening window	Vent	37 mm	37 mm	37 mm	-
Min. visible width inward opening	Frame	60 mm	60 mm	60 mm	not visible
window-door	Vent	67 mm	67 mm	67 mm	not visible
Overall systems double window	Frame	77 mm	87 mm	87 mm	77 mm
Overall system depth window	Vent	87 mm	87 mm	87 mm	80 mm
Rebate height		27 mm	27 mm	27 mm	27 mm
Glass thickness	Frame	up to 62 mm			
	Vent	up to 72 mm	up to 62 mm	up to 62 mm	up to 62 mm

PERFORMAN	CES
-----------	-----



Thermal insulation



Acoustic performance



Air tightness



Wind load resistance



Water tightness



Burglar resistance

Uf-value down to 1.0 W/m 2 K depending on the frame/vent combination and the glass thickness.

Rw(C;Ctr) = 45 (-1; -4) dB, depending on glazing type

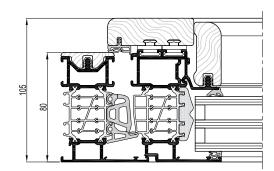
Up to 600 Pa (class 4+)

Up to 1600 Pa (class 4)

Up to 1200 Pa (class E1200)

Up to RC 3 (EN 1627)









Combining the best of aluminium and wood

SENSITY is a highly insulated aluminium system for windows, based on the technologically refined CS 86-HI system, providing the best guarantee for a comfortable interior climate. The thermally insulated aluminium frame will ensure the durability, wind and water tightness and accoustic performance of your windows. This window system is perfectly suitable for different architectural creations. The aluminium at the outside allows you to personallize your windows, by selecting from a wide range of RAL colors, structural Coatex surfaces or even give it a "woodenlook" finish, while maintaining the ultimate low maintenance properties of the aluminium.



BLEACHED OAK modern interior



TOBACCO cozy interior



WENGE luxury interior

TECHNICAL	CHARACTERISTICS
ILCIIIIICAL	CHARACIERISHICS

Min. Visible width inward opening window

Overall system depth window

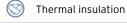
Rebate height

Glass thickness

zy interior	iuxui y iiitei
	FUNCTIONAL

Frame	64 mm
Vent	35 mm
Frame	80 mm
Vent	100 mm
	25 mm
	up to 52 mm

PERFORMANCES



Acoustic performance

Air tightness

Wind load resistance

Water tightness

Uf-value down to 1.1 W/m 2 K depending on the frame/vent combination and the glass thickness

Rw (C;Ctr) = 37 (-1,-3) / 39 (-1,-3) dB

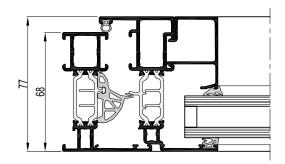
Up to 600 Pa (class 4)

Up to 2000 Pa (class 5)

Up to 600 Pa (class 9A)







Optimised safety and comfort

CS 77 is a high insulating window and door system that meets elevated requirements regarding thermal insulation, stability and security.

The system's performance regarding acoustics, water- and air tightness, but also for specific applications like Bullet - and Fire Resistance, meets the most severe European standards. Moreover, CS 77 is available in different burglar resistance levels (class 2 & 3) making it an extremely secure system. For insulation, CS 77 even achieved the Swiss Minergie® component label.

To match the different building types, the system is available in a variety of aesthetic styles: Functional, Renaissance, Softline and Hidden Vent.

The CS 77 system includes a complete range of solutions for all types of inward and outward opening windows and doors. Ultimate combination possibilities with the CP 130 sliding system and Ventalis ventilation units, makes CS 77 extremely suitable for all types of building concepts, even with the highest safety requirements.











TECHN	ICAL	CHARACT	TERISTICS

TECHNICAL CHARACTERISTICS		FUNCTIONAL	RENAISSANCE	HIDDEN VENT	SOF I LINE
Min visible width inward energing window	Frame	51 mm	51 mm	76 mm	51 mm
Min. visible width inward opening window	Vent	33 mm	33 mm	not visible	33 mm
Min. visible width inward opening	Frame	68 mm	-	-	-
flush door	Vent	76 mm	-	-	-
Overall evetem depth window	Frame	68 mm	77 mm	68 mm	68 mm
Overall system depth window	Vent	77 mm	86 mm	72.5 mm	77 mm
Rebate height		25 mm	25 mm	18.5 mm	25 mm
Glass thickness		up to 53 mm	up to 53 mm	up to 49 mm	up to 30 mm

PERFORMANCES

	Thermal insulation
	Acoustic performance
	Air tightness
P	Wind load resistance
_	

	Water tightness
	Burglar resistance

Uf-value down to 1.2 $\mbox{W/m}^{2}\mbox{K}$ depending on the frame/vent combination and the glass thickness

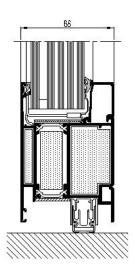
Rw (C;Ctr) = 36 (-1;-4) dB / 42 (-2;-4) dB, depending on the glazing type

Up to 600 Pa (class 4)

Up to 2000 Pa (class 5)

Up to 900 Pa (class E900)

Up to RC 3 (EN 1627 & NEN 5096)



CS 77-FP60 door





The CS 77-FP EI30 and EI60 is developed based on the existing CS 77 profiles and accessories for windows and doors and extensively tested in an optimized European test and approval program. The fireproofing time span is achieved by inducing a special cooling material into the profile chambers and by using self-adhesive and water-resistant swelling gaskets. These gaskets do not need to be sealed, reducing fabrication time of the profiles and saving costs.

The CS 77 fire proof range is available as outward opening single and double doors, panic doors, combined fixed window elements as well as glazed partition walls. This extensive range of configurations offers a huge range of options and combinations for architects to work with. Furthermore a large choice of accessories and locking devices is available.

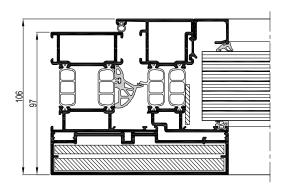
TECHNICAL CHARACTERISTICS	
Rebate height	
Glass thickness	
Glazing method	

CS 77-FP EI30	CS 77-FP EI60
25 mm	25 mm
from 15 mm to 52 mm	from 15 mm to 52 mm
dry glazing with EPDM	dry glazing with EPDM

PERFORMANCES		
	European testing standards	
	Classification standard	
	Fire resistance classification	
%	Burglar resistance	

CS 77-FP EI30	CS 77-FP EI60
EN 1364-1	EN 1364-1
EN 1634-1	EN 1634-1
EN 13501-2	EN 13501-2
EW30, E30, EI ₃ 30, EI ₂ 30	EI45, EW60, E60, EI60

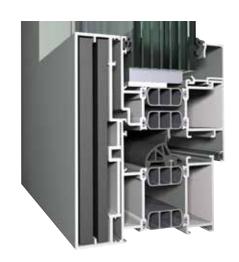




CS 77-BP is an extension of CS 77 which enables the realisation of bulletproof windows and doors according to the most severe European standards.

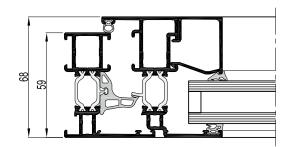
We offer a range of window & doors solutions for classifications FB3 up to FB6, FSG & Kalashnikov.

Optionally, the windows can be offered with a burglar resistance up to RC 3.



TECHNICAL CHARACTERISTICS BULLETPROOF 128 mm Frame Min. visible width inward opening window Vent Frame 77 mm Min. visible width inward opening flush door Vent 77 mm Frame 97 mm Overall system depth window Vent 77 mm Rebate height 25 mm Gla

Glass thickness	from 25 to 63 mm
PERFORMANCES	
Thermal insulation	Uf-value down to 1.94 W/m²K, depending on the frame/vent combination
Acoustic performance	Rw (C; Ctr) ≤ 42 (-2; -4) dB, depending on the glazing type
Air tightness	Up to 600 Pa (class 4)
Wind load resistance	Up to 2000 Pa (class 5)
Water tightness	Up to 900 Pa (class E900)
Bullet resistance	Up to FB 6, FSG & Kalashnikov (EN 1522)
Burglar resistance	Windows: up to RC 3 (EN 1627)







Universal solution

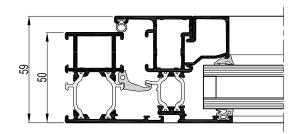
CS 68 is a universal window and door system, with good performances regarding stability, thermal insulation and security. The system is available in a variety of aesthetic styles: Functional, Renaissance, Softline and Hidden Vent – this way the windows can match your building style perfectly.

The system offers a range of solutions for inward and outward opening windows or doors, and is compatible with the Ventalis ventilation units. In addition, CS 68 windows and doors can comply with burglar resistance classes 2 and 3, offering an ultimate level of security.

TECHNICAL CHARACTERISTICS		FUNCTIONAL	RENAISSANCE	SOFTLINE	HIDDEN VENT
Min visible width inward enoping window	Frame	51 mm	51 mm	51 mm	76 mm
Min. visible width inward opening window	Vent	33 mm	33 mm	33 mm	not visible
Min. visible width inward opening	Frame	68 mm	-	-	-
flush door	Vent	76 mm	-	-	-
Overall system double window	Frame	59 mm	68 mm	68 mm	59 mm
Overall system depth window	Vent	68 mm	77 mm	77 mm	63.5 mm
Rebate height		25 mm	25 mm	25 mm	18.5 mm
Glass thickness		up to 44 mm	up to 44 mm	up to 44 mm	up to 40 mm

Olass tilickliess	up to 44 min up to 44 min up to 44 min up to 44 min
PERFORMANCES	
Thermal insulation	Uf-value down to 1.8 W/m²K, depending on the frame/vent combination
Acoustic performance	Rw (C;Ctr) = $37 (-1;-4) dB / 44 (-2;-5) dB$, depending on the glazing type
Air tightness	Up to 600 Pa (class 4)
Wind load resistance	Up to 2000 Pa (class 5)
Water tightness	Up to 1200 Pa (class E1200)
Burglar resistance	Windows: Up to RC 2 (EN 1627 & NEN 5096) Doors: Up to WK 3 (NEN 5096)





Simply smart

ES 50 is a well-insulated system for inward and outward opening windows and doors, that combines aesthetic design and energy efficiency with a moderate price. The system's limited built-in depth allows its application in many constructions, even with reduced wall thicknesses.

Design wise, ES 50 offers, next to the functional design frames, special block profiles resembling wooden frames. The use of invisible fittings results in an even more elegant look, since hinges are no longer in sight. In addition, ES 50 can comply with burglar resistance class 2, offering a safe and secure solution both for residential constructions and utility buildings.

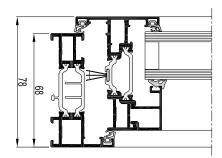


TECHNICAL CHARACTERISTICS
Min. visible width inward opening window
Min. visible width inward opening flush door
Overall system depth window
Rebate height
Glass thickness

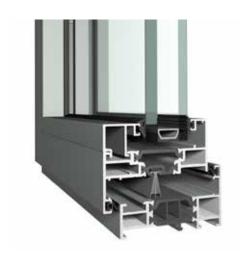
	FUNCTIONAL
Frame	48 mm
Vent	30 mm
Frame	67 mm
Vent	74 mm
Frame	50 mm
Vent	59 mm
	22 mm
	up to 32 mm

PERFORMANCES			
	Thermal insulation		
	Acoustic performance		
	Air tightness		
(P)	Wind load resistance		
	Water tightness		
%	Burglar resistance		

Uf-value down to 1.6 W/m²K depending on the frame/vent combination and the glass thickness
Rw (C;Ctr) = 35 (-1;-4) dB / 39 (-1;-3) dB, depending on the glazing type
Up to 600 Pa (class 4)
Up to 1600 Pa (class 4)
Up to 750 Pa (class E750)
Up to RC 2 (EN 1627)







Reynaers Aluminium's SlimLine 68 window system is specifically designed to meet the demand for an outward opening window with very slim profiles. Particularly suited to use in residential properties, this window maximises the glass area to let in lots of natural daylight. The slim frames and clean lines make this window ideal for both contemporary and more traditional properties, as the design of the window mimics the sight lines of the original steel-framed windows. Its 68mm frame depth makes it perfect as a replacement window as it usually fits within the existing plaster line.

SlimLine 68 vents can be glazed from the inside as well as the outside, and are available on a standard and a HI insulation level.

TECHN	CHVD	ACTED	ISTICS

Min. visible width outward	l opening window
----------------------------	------------------

Min. visible width T-profile

Overall system depth window

Rebate height

Glass thickness

Glazing method

Thermal insulation

High Insulation variant (HI)

	11	NI	CT	10	M	ΛΙ
г	U	IΝ	U.I.	IU	IΝ	ΑL

Frame	15 mm
Vent	50 mm
	50 mm
Frame	68 mm
Vent	68 mm
	18 mm
	up to 43 mm
	dry glazing with EPDM or neutral silicones
	omega-shaped fibreglass reinforced polyamide strips (32 mm)
	available

PERFORMANCES



Thermal insulation



Acoustic performance



Air tightness



Wind load resistance



Water tightness



Burglar resistance

Uf-value down to 2.6 W/m²K depending on the frame/vent combination and the glass thickness.

Uw ≥ than 1.4 W/m²K for a standard window section

Rw (C; Ctr) = 36 (-1; -5) dB / 47 (-2; -7) dB, depending on glazing type

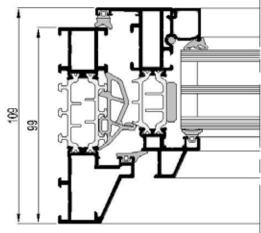
Up to 600 Pa (class 4)

Up to 1600 Pa (class 4)

Up to 1050 Pa (class E1050)

PAS 24





Light, Elegance and comfort

SlimLine 38 is a highly insulated system that combines elegance and comfort with a unique design. This special slender steel look is the perfect solution for modern architecture and renovation of steel-framed windows, respecting the original design but offering a thermally improved solution.

The SL 38 system is available in 3 different minimalistic design variants, Classic, Ferro and Cubic, to perfectly match the architectural aspect of the building. The windows and doors can be provided with double and triple glazing without losing the ultra-slim look.

In combination with its superior insulation capabilities, the system provides the perfect harmony between durable material, clean design and demanding architectural challenges.



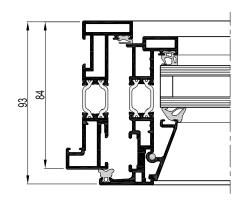






TECHNICAL CHARACTERISTICS		CLASSIC	CUBIC	FERRO
Min. visible width inward opening window	Frame	33 mm	33.5 mm	33.5 mm
	Vent	23 mm	22 mm	21.5 mm
Min. visible width inward opening window-door	Frame	33.5 mm	33.5 mm	
	Vent	52.5 mm	52.5 mm	
Overall system depth window	Frame	99 mm	76 mm	76 mm
	Vent	86 mm	75 mm	72 mm
Rebate height		13.5 mm	13.5 mm	13.5 mm
Glass thickness		up to 55 mm	up to 55 mm	up to 55 mm

PERFORMANCES	
Thermal insulation	Uf-value down to 1.7 W/m²K depending on the frame/vent combination and the glass thickness. Uw of less than 1.4 W/m²K for a standard window section
Acoustic performance	Rw(C;Ctr) = 38 (-1; -4) dB / 45 (-1; -5) dB, depending on glazing type
Air tightness	Up to 600 Pa (class 4)
Wind load resistance	Up to 1600 Pa (class 4)
Water tightness	Up to 600 Pa (class 9A)
Burglar resistance	Up to RC 2 (EN 1627 & NEN 5096)







Ultimate elegance

CS 24-SL is a thermally insulated system for outward opening windows and doors that combines ultra-slim design, stability and ease in production. The system's slender exterior contours and specially designed glazing beads give it a steel look & feel.

This in combination with the excellent insulation level makes CS 24-SL not only suitable for new-build houses, but also for renovations of steel-framed windows and doors, residential constructions, schools and utility buildings.

The standard outward opening types can be applied in numerous combinations in line with the needs of the building. A unique aspect is that this slim system can also comply with burglar resistance class 2, offering a safe and secure solution.

TECHNICAL	CHARAC	TERISTICS
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Min. visible width outward opening window

Min. visible width outward opening window door

Overall system depth

Rebate height

Glass thickness

Frame	19 mm
Vent	31 mm
Frame	19 mm
Vent	70 mm
Frame	85 mm
Vent	85 mm
	14 mm
	up to 29 mm

SLIM LINE

PERFORMANCES



Thermal insulation



Air tightness



Wind load resistance



Water tightness



Burglar resistance

Uf-value down to 3.3 W/m²K depending on the frame/vent combination and the glass thickness

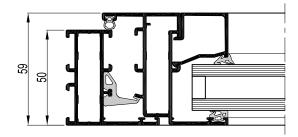
Up to 600 Pa (class 4)

Up to 1200 Pa (class 3)

Up to 750 Pa (class E750)

Up to WK 2 (NEN 5096)

CS 59Pa Windows & Doors



Ideal for warm climates

CS 59Pa offers an extensive range of non-insulated profiles for the construction of elegant and moderately priced aluminium windows and doors in functional or renaissance style. Therefore, CS 59Pa is the ideal system for applications in warm climates but it can also be used for the partitioning of indoor office spaces.

For winter gardens, special combinations are possible with the Reynaers Aluminium conservatory systems. The different design options and the large choice of colours allow a perfect match with the building style.



up to 35 mm

TECHNICAL CHARACTERISTICS

Min. visible width inward opening window

Min. visible width inward opening flush door

Overall system depth window

Rebate height

Glass thickness

	PARALLEL	RENAISSANCE
Frame	49 mm	55 mm
Vent	21 mm	31 mm
Frame	61,5 mm	-
Vent	72,5 mm	-
Frame	50 mm	59 mm
Vent	59 mm	68 mm
	25 mm	25 mm

PERFORMANCES



Acoustic performance



Air tightness



Wind load resistance



Water tightness

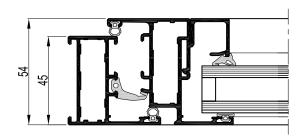
Rw (C;Ctr) = 36 (-1;-3) dB / 44 (-2;-4) dB, depending on the glazing type

up to 35 mm

Up to 600 Pa (class 4)

Up to 2000 Pa (class 5)

Up to 750 Pa (class E750)



ES 45Pa Windows & Doors



A new dimension of affordable quality

ES 45Pa is a non-insulated system for inward and outward opening windows and doors, designed according to the highest European quality standards. To guarantee superior quality and performance in every situation, the system has three gasket levels for inward and outward opening windows and doors. Through intelligent application, these multiple gaskets meet even the high air- and water tightness requirements of tropical regions. This simple, yet highly innovative design offers a very cost-efficient solution thanks to its optimised fabrication process.

ES 45Pa can be realised with all types of inward and outward opening windows and doors, with an extensive choice of accessories. The numerous combinations of elements and the perfect match with the ES 45Pa door -and sliding system, make ES 45Pa extremely suitable for all types of building concepts.

FUNCTIONAL

TECHNICAL CHARACTERISTICS

Min. visible width inward opening window

Min. visible width inward opening window door

Overall system depth

Rebate height

Glass thickness

Frame	47 mm
Vent	30 mm
Frame	47 mm
Vent	61 mm
Frame	45 mm
Vent	54 mm
	22 mm
	up to 42 mm

PERFORMANCES



Acoustic performance



Air tightness



Wind load resistance



Water tightness

Rw (C;Ctr) = 41 (-1;-5) dB / 42 (-2;-5) dB, depending in or outward opening window

Up to 600 Pa (class 4)

Up to 2400 Pa (class E2400)

Up to 900 Pa (class E900)





Hi-Finity



CP 155 / CP 155-LS



CP 96 / CP 96-LS



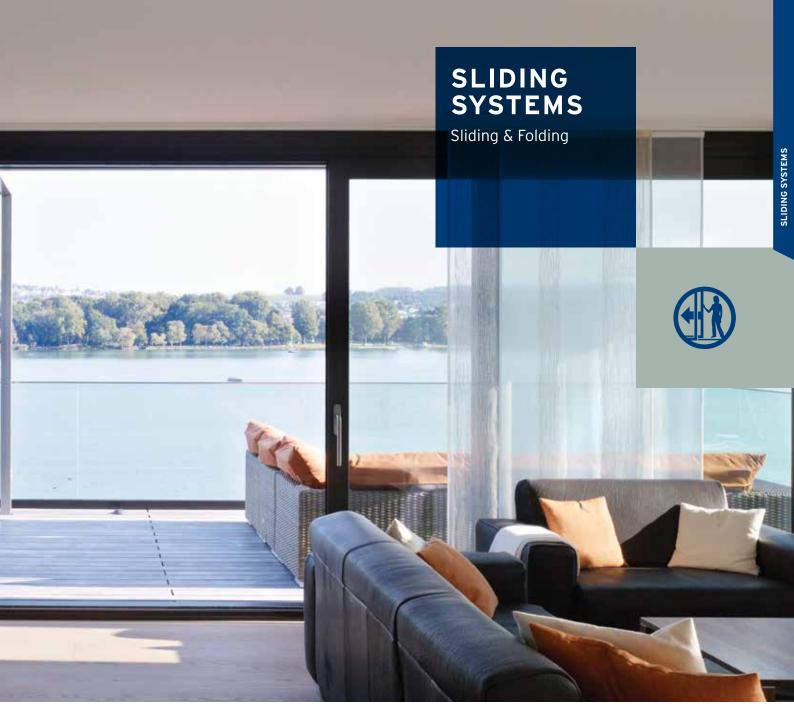
SlimPatio 68



CP 130 / CP 130-LS



CP 68





CP 45Pa



GP 51



CF 77



CF 68



DESIGN VARIANTS	Hi-Finity	SlimPatio 68	CP 155	CP 130	CP 96	CP 68	CP 45Pa	CF 77	CF 68
Functional									
Softline									
Renaissance									
Slim Line									
Monorail									
2-Rails									
3-Rails									
4-Rails									
Multirail									
Slide									
Lift-Slide									
Automatic									
Low and/or zero threshold									
Pocket									
Open corner									
Glass corner									

SAFETY VARIANTS

Burglary Proof

OVERALL SYSTEM DEPTH (STANDARD)

Frame	147/179 mm	120 mm	155 mm	130 mm	96 mm	68 mm	50 mm	77 mm	68 mm
Vent	44/60 mm	64 mm	68 mm	59 mm	43 mm	41/49 mm	29 mm	77 mm	68 mm

SUSTAINABILITY

High insulation			
Ventalis			

ENERGY PERFORMANCE

Insulation (Uw-value >=)*	1.4 W/m²K	1.6 W/m²K	1.8 W/m²K	1.9 W/m²K	2.1 W/m²K	1.7 W/m²K	-	2.3 W/m²K	1.8 W/m² K
Air tightness Class (value in Pa)	4	4	4	4	4	4	4	4	4
	(600 Pa)	(600 Pa)	(600 Pa)	(600 Pa)					
Water tightness Class (value in Pa)	9A	8A	E900	9A	9A	7B	6A	9A	9A
	(600 Pa)	(450 Pa)	(900 Pa)	(600 Pa)	(600 Pa)	(300 Pa)	(250 Pa)	(600 Pa)	(600 Pa)
Wind load resistance	4	4	4	4	3	4	4	3	2
Class (value in Pa)	(1600 Pa)	(1600 Pa)	(1600 Pa)	(1600 Pa)	(1200 Pa)	(1600 Pa)	(1600 Pa)	(1200 Pa)	(800 Pa)

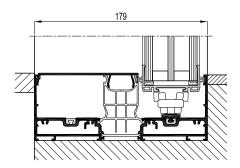
^{*} Depending on frame/vent combination - HI variant - Ug value = 1.0 and pSi = 0.11

	Hi-Finity	SlimPatio 68	CP 155	CP 130	CP 96	CP 68	CP 45Pa	CF 77	CF 68
•									









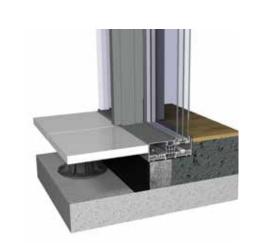
Enjoy an infinite view with ultimate performances! The ultra-slim design of the Hi-Finity sliding door creates large transparent surfaces, with a light, sleek and elegant appearance.

This fully transparent and accessible sliding door seamlessly extends the house's interior to the outside. Despite the minimal visual sidelines, the systems high strength allows Hi-Finity to carry the weight of a large sliding glass pane up to 750 kilograms. Fixed panels up to 1200 kg.

This in combination with the high energy performance and the minimalistic look makes this product the best solution for low-energy contemporary architecture.

For a higher level of comfort a concealed motor allows you to open the vents with the push of a button, or by connecting the motor to your home automation system. This high performance motor guarantees optimum convenience during use and is a safe and reliable solution.



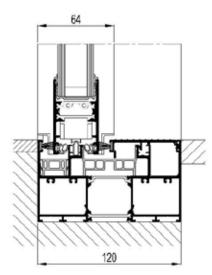


TECHNICAL CHARACTER	ISTICS	Double glazing	Triple glazing		
Height	Build-in frame	68 mm / 100 mm	68 mm / 100 mm		
Visible width / height	Vent	8 mm	10 mm		
	Meeting section	35 mm (adjustable)	35 mm (adjustable)		
	Meeting section 4 doors	67 mm (adjustable)	69 mm (adjustable)		
Overall system depth	Frame	Duo Rail : 147 mm 3-Rail : 234 mm	Duo Rail : 179 mm 3-Rail : 282 mm		
	Vent	44 mm	60 mm		
Maximal element height		3500) mm		
Maximal vent weight		300 kg manual / 750 kg motorized / 1200 kg fixed			
Glass thickness		36-38 mm	52-54 mm		

PERFORMANCES	
Thermal insulation	Uf-value down to 1.4 W/m²K, depending on the frame/vent and the glazing thickness.
Acoustic performance	Rw(C;Ctr) = 43 (-1;-3) dB
Air tightness	Up to 600 Pa (class 4)
Wind load resistance	Up to 1600 Pa (Class 4B)
Water tightness	Up to 600 Pa (class 9A)
Burglar resistance	Up to RC 2 (EN 1627)







Open Elegance

SlimPatio 68 is a high insulated sliding system with slim profiles and a concealed frame that combines comfort with elegance. Thanks to the ultra slim design, this sliding window allows for maximum natural light and provides an optimal panoramic view. The integrated innovative technologies guarantee ultimate performances with regard to wind and water tightness and thermal insulation, meeting with the highest standards.

The sliding system SlimPatio 68 offers you all design freedom to create contemporary living spaces, combining ultimate brightness with maximum comfort.



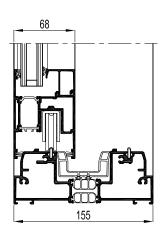
TECHNICAL CHARACTERISTICS		2-RAIL	3-RAIL		
Visible width / height	Frame	0 mm			
	Horizontal Vent	34 mm			
	Vertical vent	34 n	34 mm		
	Meeting section	34 mm			
Overall system depth	Frame	120 mm	176 mm		
	Vent	64 mm			
Maximal vent height		2700 mm			
Maximal vent weight		250 kg			
Rebate height	18 mm				
Glass thickness		from 24 mm to 36 mm			
Thermal insulation		32 mm and 36 mm fibreglass reinforced polyamide strips			

PERFORMANCES	
Thermal insulation	Uf-value down to 2.4 W/m²K, depending on the frame/vent combination Uw-value down to 1.2 W/m²K, for 3000mm x 2500mm frame/vent combination (Ug=0.8 W/m²K)
Acoustic performance	Rw (C; Ctr) = 40 (-2;-4) dB
Air tightness	Up to 600 Pa (class 4)
Wind load resistance	Up to 1600 Pa (class 4)
Water tightness	Up to 450 Pa (class 8A)









Sophistication for quality and insulation

Concept Patio[®] 155 is a premium insulating slide and lift-slide system, designed to create maximal opening elements, combined with increased comfort. The system perfectly links up to the CS 77 series.

The CP 155 can be upgraded to High Insulation (HI) in order to achieve even better insulation values, which makes the system suitable for low energy buildings. A specific variant of CP 155 monorail has even achieved the Swiss Minergie® component label.

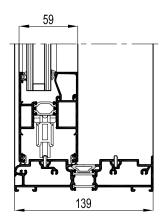
CP 155 is available with various opening possibilities, including open / glass corner, pocket and the low and zero threshold option offers a solution to improve the buildings accessibility. Optional automatic opening solutions guarantee a maximum of comfort.

The lift-slide system allows the creation of glazed doors with extreme dimensions and weights up to 400 kg. Monorail allows up to 1500 kg for fixed panels. Additionally, CP 155 can comply with burglar resistance class 2, offering a safe and secure solution.



TECHNICAL CHARACTERISTICS		CP 155		CP 155 LS				
		MONORAIL	2-RAIL	3-RAIL	MONORAIL	2-RAIL	3-RAIL	MINERGIE
	Frame	50 - 60 mm			50 - 60 mm			
Visible width / height Vent Meeting section		102 mm			102 mm			
			115 mm			115	mm	
Overall system depth Frame Vent	Frame	155 mm	155 mm	242 mm	155 mm	155 mm	242 mm	192 mm
	Vent		68 mm			68	mm	
Rebate height		25 mm 25 mm						
Glass thickness		up to 52 mm		up to 52 mm			up to 61 mm	

Uf-value down to 1.07 W/m²K, depending on the frame/vent combination
Rw (C;Ctr) = 35 (-2;-5) dB / 42 (-1;-3) dB, depending on the glazing type
Up to 600 Pa (class 4)
Up to 1600 Pa (class 4)
900 Pa (class E900), 300 Pa (class 7A), 450 Pa (class 8A)
Up to WK 2 (ENV 1627)







Aesthetic functionality

Concept Patio[®] 130 is a highly insulated slide and lift-slide system, which meets the highest requirements with regard to insulation, stability and safety. The system perfectly links up to the CS 68 series.

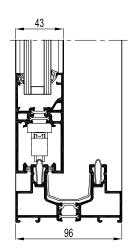
CP 130 is available with various opening possibilities and the low and zero threshold option offers a solution to improve the buildings accessibility. The open corner and pocket solution make it possible to open up spaces without any fixed corner element, creating a perfect and clear continuity between the indoor and outdoor spaces. This makes CP 130 ideal for rooms with a view.

This robust system allows the construction of large and stable sliding windows and doors with a vent weight up to 300 kg. It also offers an aesthetical slimline middle section. Additionally, CP 130 can comply with burglar resistance class 2, offering a safe and secure solution.

TECHNICAL CHARACTER	RISTICS		CP 130		CP 1	30-LS	
		MONORAIL	2 RAIL	3 RAIL	2 RAIL	3 RAIL	
	Frame	50 mm	50 mm	50 mm	28/35/40 mm	28/35/40mm	
Visible width / height	Vent		69 - 98 mm From 76 mm till 115 mm			69 - 98 mm	
	T-profile	Fror				From 76 mm till 115 mm	
Overell evelope death	Frame	130 mm	110-139 mm	181 mm	139 mm	210 mm	
Overall system depth	Vent		59 mm			n 59 mm	
Rebate height		25 mm 25 mm		mm			
Glass thickness		Up to 43 mm Up to 43 mm		43 mm			

PERFORMANCES	
Thermal insulation	Uf-value down to 1.9 W/m²K, depending on the frame vent combination
Air tightness	Up to 600 Pa (class 4)
Wind load resistance	Up to 1600 Pa (class 4)
Water tightness	Up to 600 Pa (class 9A), 450 Pa (class 8A), 300 Pa (class 7A)
Burglar resistance	Up to WK 2 (ENV 1627)

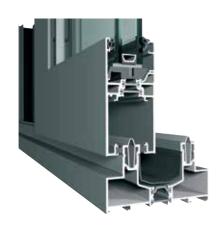




Safety and durability at a fair price

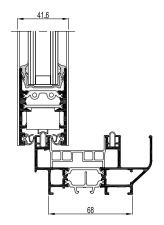
Concept Patio® 96 sliding and lift & slide elements are the perfect answer to the increasing demand for safety and durability. They combine strong technical performance with aesthetical minimalism.

CP 96 is available in a wide range of opening possibilities and offers an enhanced burglary resistance.



TECHNICAL CHARACTERISTICS		CP 96			CP 96-LS
		MONORAIL	2-RAIL	3-RAIL	2-RAIL
Visible width / height	Frame		52 mm		52 mm
	Vent		90 mm		90 mm
	T-profile		89-102 mm		89-102 mm
	Meeting section		104 mm		104 mm
Overall system depth window	Frame	96 mm	96 mm	149 mm	96 mm
	Vent		43 mm		43 mm
Glass thickness		fr	om 10 mm to 29 m	ım	from 10 mm to 29 mm

PERFORMANCES	
Thermal insulation	Uf-value down to 2.1 W/m²K depending on the frame/vent combination
Air tightness	Up to 600 Pa (class 4)
Wind load resistance	Up to 1200 Pa (class 3)
Water tightness	Up to 600 Pa (class 9A)
Burglar resistance	Up to WK 2 (NEN 5096)







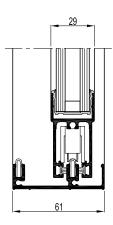
Concept Patio® 68 is a highly-insulated sliding system that combines elegance with performance and security. This unique sliding system is characterised by its slim profiles, allowing the integration of large windows and doors for maximum views, in combination with burglary resistance class RC2. The integrated innovative technologies guarantee ultimate performances with regard to wind and water tightness and thermal insulation, meeting with the highest standards.

The sliding system CP 68 offers you all design freedom to create contemporary living spaces, combining ultimate brightness with maximum comfort and security.

TECHNICAL CHARACTERISTICS		2-RAIL	3-RAIL
NO. 11 1 1 11 1	Frame / Vent	109 mm	109 mm
Visible width	Meeting section	34 mm	34 mm
Overall system depth	Frame	68 mm	124 mm
	Vent	41,6 mm	41,6 mm
Maximal vent height		2500) mm
Maximal vent weight		200) kg
Rebate height		18 ו	mm
Glass thickness		28 / 3	6 mm
Glazing method		with EPDM in accordance	with the envelope principle
Thermal insulation		32 mm and 36 mm fibreglas	s reinforced polyamide strips

PERFORMANCES	
Thermal insulation	Uf-value down to 2.51 W/m²K, depending on the frame/vent combination
Acoustic performance	Rw (C; Ctr) = 38 (-2;-4) dB
Air tightness	Up to 600 Pa (class 4)
Wind load resistance	Up to 1600 Pa (class 4)
Water tightness	300 Pa (class 7A)
Burglar resistance	Up to RC 2 (EN 1627)

CP 45Pa Sliding Systems



Less is more

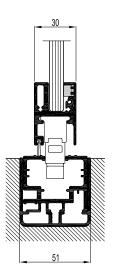
Concept Patio® 45Pa is a non-insulated sliding system offering a wide range of solutions ideal for applications in warm climates, winter gardens or the partitioning of indoor office spaces. CP 45Pa applies the latest techniques, designed according to the highest European quality standards. This sliding system offers the complete range of opening possibilities, from sliding elements in the wall, over 2-, 3- to even 4-rail solutions.

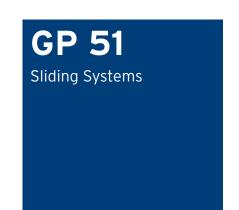
With the minimalistic design, CP 45Pa realises an aesthetic solution for your building. In addition, the sliding elements can easily be integrated with different types of windows, conservatory systems, sun screenings and screen doors.



TECHNICAL CHARACTERISTICS		MONORAIL	2-RAIL	3-RAIL	4-RAIL	
	Frame	45 mm	17 mm / 45 mm	17 mm / 45 mm	17 mm / 45 mm	
Visible width / height	Horizontal vent	56 mm				
	Vertical vent	54.5 mm / 67 mm				
	Meeting section	40 mm				
Overall system depth window	Frame	48 mm / 56 mm	50 mm / 61 mm	86 mm / 97 mm	122 mm / 133 mm	
	Vent	29 mm				
Glass thickness		from 6 mm to 24 mm				

PERFORMANCES	
Air tightness	Up to 600 Pa (class 4)
Wind load resistance	Up to 1600 Pa (class 4)
Water tightness	Up to 250 Pa (class 6A)



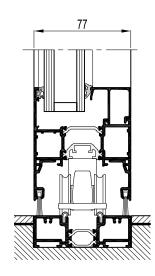




The GP 51 is an innovative full glass sliding system. It consists of individually sliding glass panels, without vertical frames. The system provides a convenient and modular solution for glazing balconies and terraces or partitioning internal office spaces. GP 51 has been designed to meet the requirements of modern, lightweight and transparent architecture. Easy and fast to assemble and to install, the system is unique due to its flat bottom rail solution adjustable wheels and the absence of a threshold allowing easy access to the terrace. GP 51 is the ideal solution for enjoying the surrounding environment all year long. Certified fabricators are trained to assemble and install this GP 51 system.

TECHNICAL CHARACTERISTICS	
Corner connection of the rails	90° - 270°
Glass thickness	6 - 8 - 10 mm
Discouries and a second	max. 2800 mm height
Dimensions glass panels	max. 800 mm width
Glazing type	tempered glass





Invite nature into your building

Concept Folding 77 combines high insulation and comfort with maximal transparency and aesthetics. CF 77 allows for large and heavy glass panes to really open up the space, while assuring optimal insulation.

This high performance system offers different opening types, both inward and outward, to meet all possible requirements. Apart from the standard folding elements, CF 77 can feature a main door principle, in which the first leaf is used as an entrance door without affecting the other folding leafs.

CF 77 is available in 4 different threshold solutions, from high performance to low and even flush thresholds, in order to perfectly match all comfort and aesthetic requirements. Additionally, the CF 77-concept can perfectly be combined with the CS systems for windows, doors and curtain walls.

Furthermore, CF 77 is available in Functional Slim-Line style. This CF 77-SL variant features a slimmer visible profile width.

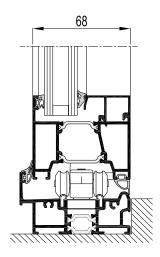


TECHNICAL CHARACTERISTICS

	CF 77	CF 77-SL	
Max. vent size	1200 x 3000 mm	1200 x 3000 mm	
Max. vent weight	120 kg	120 kg	
Uw (W/m²K) 4-panel: 4000 x 2700 mm	down to 1.66	down to 1.64	
Visible width vent-vent section	144 mm	122 mm	

PERFORMANCES

PERFORMANCES	
Thermal insulation	Uf-value down to 2.25 W/m²K
Air Tightness	Up to Class 4
Wind load resistance	Up to Class B3
Water Tightness	Up to Class 9A (600 Pa)
Burglar resistance	Up to RC 2 (EN 1627)







Endless enjoyment

Answering the needs of contemporary architecture, the Concept Folding 68 system combines design, comfort and space efficiency. The wide range of possibilities to unfold numerous glass panes makes the borders between in- and exterior literally vanish.

The folding principle of this high quality system allows you to combine thermal comfort and transparency, with a wide choice of in- or outside opening types.

The elements come in every colour and finish, if desired, offering a different colour for the interior and the exterior, all in order to perfectly match the building.

TECHNICAL CHARACTERISTICS

		thresh
	Frame / Threshold	0-15 m
Visible width / height	Frame-vent section	
	Vent-vent section	
Overall system depth		
Maximal element height		
Maximal vent weight		
Rebate height		
Glass thickness		

Flush threshold	Low threshold	Double weather seal	High performance
0-15 mm	5-30 mm	19-44 mm	19-74 mm
	100 mm	n / 111 mm	
	131 mm	/ 153 mm	
	68	mm	
	250	0 mm	
	90	O kg	
	14 mm	/ 25 mm	
	12-5	5 mm	

PERFORMANCES

	Thermal insulation
	Air Tightness
P	Wind load resistance
	Water Tightness
%	Burglar resistance

(Uf-value dowr depending on the p	n to 1.8 W/m²K, profile combinatio	n
Not applicable	Class 4	Class 4	Class 4
Not applicable	Class B3	Class B3	Class B3
Not applicable	Class 5A (0 Pa)	Class 7A (300 Pa)	Up to Class 9A (600 Pa)
	Up to RC 2	2 (EN 1627)	







CW 50



CW 50-FP



CW 60



CW 65-EF



CW 86 (-EF)



Unlimited creative freedom and maximum entrance of light

Concept Wall 50 is a façade and roof system that offers unlimited design freedom and allows maximum transparency. Innovative solutions contribute towards the tendency of big, heavy and high insulated glass panes. CW 50 supports glass panes up to 700 Kg in various glass configurations. Even more glass weight can be offered in bespoke solutions.

The system is available in several design and glazing variants, but also includes different technical variants to comply with specified levels of fire-resistance and thermal insulation down to Uf = $0.56W/m^2K$.

The design variants offer solutions for both the exterior and the interior of the building. The glazing variants range from using standard pressure plates, to structurally glazed and structurally clamped solutions.





PERFORMANCES



Thermal insulation



Acoustic performance



Air tightness



Wind load resistance



Water tightness



Burglar resistance

Uf-value down to 0.56W/m²K depending on the profile combination

Rw (C;Ctr) = 33 (-1;-3) dB / 60 (-2;-6) dB, depending on the glazing type or panel type

Up to 1950 Pa (class AE 1950)

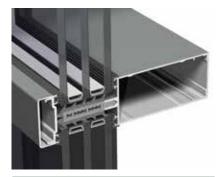
Up to 2400 Pa

Up to 1950 Pa (class RE 1950)

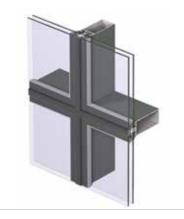
Up to WK 3 (NEN 5096 / ENV 1627)



TECHNICAL CHARACTERISTICS	CW 50 functional
Inside visible width	50 mm
Outside visible width	50 mm
Glass thickness	from 6 to 61 mm



CW 50-HI ultimate thermal comfort	
50 mm	
50 mm	
from 22 to 61 mm	



TECHNICAL CHARACTERISTICS	CW 50-SC structural clamped glazing
Inside visible width	50 mm
Outside visible width	joint: 20 mm
Glass thickness	from 27 mm to 63 mm



cw 50-sG structural sealed glazing 50/88 mm EPDM gasket (width 27 mm) from 24 mm to 36 mm



CW 50-TT rationalized system
50 mm
50 mm
from 6 to 64 mm



CW 50-SL slender appearance
15/50 mm
50 mm
from 6 to 61 mm





aesthetical horizontal lining

Inside visible width

Outside visible width

Glass thickness

50 mm vertical: 30 mm joint

horizontal: 50 mm from 22 to 48 mm



CW 50-VL aesthetical vertical lining

50 mm

vertical: 50 mm horizontal: 20 mm joint

from 27 to 40 mm



TECHNICAL CHARACTERISTICS

Inside visible width Outside visible width

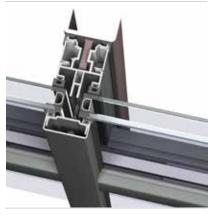
Glass thickness

CW 50-RA (ROOF APPLICATION) designed for inclined surfaces

50 mm

50 mm

from 6 to 60 mm



CW 50 ALU ON STEEL designed for steel structure

50 mm

50 mm

from 6 to 61 mm



TECHNICAL CHARACTERISTICS

CW 50 HV-TUTI

slender visible width opening element

Inside visible width

Outside visible width

Glass thickness

23/80 mm

50 mm

opening window 22-28 mm (opening window SC 29-32 mm)





The CW 50-FP fire rated curtain wall is designed to provide an EW30, EI 30 or EI 60 fire resistance, whilst still offering the same advantages as the standard CW 50 façade system.

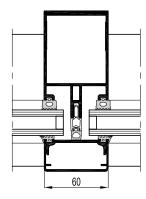
The system can be applied for both the exterior and the interior of the building, and can also offer burglar resistance as an extra option.

CW 50-FP contributes towards the tendency to use big, heavy glass panes and allows for the creation of transparent designs.

TECHNICAL CHARACTERISTICS	CW 50-FP EI30	CW 50-FP EI60
Rebate height	20 mm	20 mm
Glass thickness	30 mm	48 mm
Glazing method	fixing by pressure plates	fixing by pressure plates
Fire resistance classification	E15, EI15, EW20, E30, EW30, EI30	EW60, E60, E160

PERFORMANCES	CW 50-FP EI30	CW 50-FP EI60
European testing standards	EN 1364-3	EN 1364-3
Classification standard	EN 13501-2	EN 13501-2





Solution for heavy glass panes

CW 60 is an excellent thermally insulated curtain wall system for robust constructions of large glass surfaces, that answers even to the specific needs of sloped or curved constructions. This modular system is designed with intelligently reinforced profiles, allowing facade design with wide glass panels.

The CW 60 concept meets the highest requirements in water- and air tightness, wind load resistance and thermal insulation. It also offers the possibility to integrate triple glazing.

This curtain wall system is standard available in 4 different aesthetical outside appearances. These different design options, together with the flush roof application, make CW 60 the perfect system for ultimate design freedom. In addition, CW 60 is made up of an extensive profile range and facilitates the integration of all types of windows.



PERFORMANCES	
Thermal insulation	Uf-value down to 0.76W/m²K depending on the profile combination
Acoustic performance	Rw (C;Ctr) = 33 (-1;-4) dB / 56 (-1;-5) dB, depending on glazing type
Air tightness	600 Pa (Class A4)
Wind load resistance	Up to 2400 Pa
Water tightness	Up to 1200 Pa (class RE 1200)
Burglar resistance	WK2/RC2 & WK3/RC3 (NEN 5096 / ENV 1627)





Inside visible width

Outside visible width

Glass thickness



CW 60 functional

60 mm

60 mm

6 mm to 62 mm



CW 60-HI ultimate thermal comfort

60 mm

60 mm

22 mm to 62 mm



CW 60-SC structural clamped glazing

60 mm

Silicon joint or EPDM gasket of 20mm width

27 mm to 63 mm



CW 60-SG

structural sealed glazing

60/88 mm

EPDM gasket of

27mm width

24 mm to 36 mm

TECHNICAL CHARACTERISTICS

Inside visible width

Outside visible width

Glass thickness

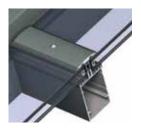


CW 60-HL / CW 60-VL horizontal or vertical lining

60 mm

mix of 20/30 mm joint & 60 mm pressure plate

22 mm to 48 mm



CW 60-RA designed for inclined surfaces

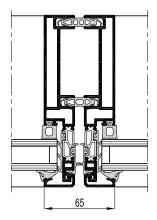
60 mm

60 mm

6 mm to 48 mm







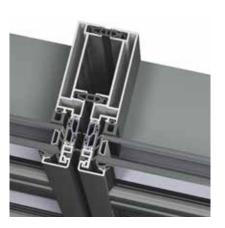
Unitized façade system with maximum transparency

CW 65-EF is a cost efficient curtain wall system for element façades with unique slender aesthetics, without compromising the extreme strength and stability required in high-rise constructions.

The typical characteristics of the unitized façade result in a high execution speed on the building site, because its elements are completely pre-assembled in the workshop. This high productivity however embraces architectural aesthetics as the CW 65-EF works with slender profiles of only 65 mm.

CW 65-EF meets the highest performance requirements in water- and air tightness and wind load resistance. The curtain wall system is available in different insulation levels, answering the appropriate insulating requirement of the building. It also offers the possibility to integrate triple glazing.

CW 65-EF is available in two glazing variants, with unique aesthetical features: one variant holds the glass using glazing beads, while the glass of the Structural Glazing (SG) variant is structurally bonded, offering a complete glass surface at the outside of the building. To fully answer all needs of the building, CW 65-EF can integrate opening elements, such as a top hung and parallel opening windows.







TECHNICAL CHARACTERISTICS

Max. dimensions W x H Interior visible width Exterior visible width Glass thickness

Glass weight
Element weight

Types of vent

PERFORMANCES

Thermal insulation

Wind load resistance

Water tightness

Air tightness

CW 65-EF functional

1.600 mm x 3.700 mm

65 mm

65 mm

From 4 to 36 mm

300 kg

700 kg

All Reynaers Aluminium systems, top hung window, POW window

window

CW 65-EF

U_f down to 2.5 W/m²K, depending on the profile combination

600 Pa (Class A4)

1800 Pa

1200 Pa (Class RE 1200)



CW 65-EF/HI ultimate thermal comfort

1.550 mm x 3.500 mm 65 mm

65 mm

From 10 to 60 mm

300 kg

700 kg



CW 65-EF/SG structural sealed glazing

1.600 mm x 3.700 mm

65 mm

16 mm joint between glass

From 4 to 40 mm

250 kg

700 kg

5-EF CW 65-EF/HI

U_r down to 1.5 W/m²K, depending on the profile combination

600 Pa (Class A4)

1800 Pa

1200 Pa (Class RE 1200)

CW 65-EF/SG

U_{1j} down to 7.6 W/m²K, depending on the profile combination and glass composition

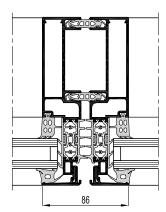
700 Pa (Class AE 700)

1400 Pa

1200 Pa (Class RE 1200)







High execution speed

CW 86 is an insulated and aesthetical curtain wall system that complies with all requirements for large building projects. For these building projects, the execution speed on the building site is very important. CW 86 therefore offers a special solution, where cassettes or elements can be pre-assembled in the workshop. On the building site, the cassettes can either be hooked on to a traditional stick structure (CW 86) or the façade can be built up element by element according to the modular curtain wall principle (CW 86-EF).

CW 86 is available in two glazing variants, with unique aesthetical features: one variant holds the glass using glazing beads, while the glass of the Structural sealed Glazing (SG) variant is structurally bonded, offering a complete glass surface at the outside of the building.

The energetic performance of the system is offered in different levels, providing thermally insulated profiles also for the Structural sealed Glazing. Specific drainage methods like cascade drainage lift this façade up to the highest demands in water- and air tightness. This makes this system applicable for extreme conditions such as coastal areas and high altitudes.

Besides the seamless integration of different types of windows, doors and sun screening systems, CW 86 offers motorised solutions for its opening elements, such as top hung and parallel opening windows, providing a total solution for your façade.

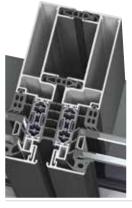




PERFORMANCES	
Thermal insulation	Uf-value down to 1.5 W/m²K, depending on the profile combination
Acoustic performance	Rw (C;Ctr) = 41 (-2;-6) dB, depending on the glazing type
Air tightness	Up to 900 Pa (class AE900)
Wind load resistance	Up to 2000 Pa
Water tightness	Up to 1200 Pa (class RE1200)
Burglar resistance	Up to RC 2 (EN 1627) upon request









TECHNICAL
CHARACTERISTICS -
ELEMENT FACADE

Interior visible width Exterior visible width Glass thickness

CW 86-EF functional

86 mm (38.5 - 9 - 38.5) 68 mm (26 - 16 - 26) or 86 mm (35 - 16 - 35) from 4 mm to 38 mm $\,$

CW OO-EF
Fixed façade
(junior)
86 mm (38.5 - 9 - 38.5)

86 mm (35 - 16 - 35)

from 6 mm to 38 mm $\,$

0((20.5 0 20.5)	06 (20 5 0 20
CW 86-EF HI ultimate thermal comfort	CW 86-EF SG structural sealed glaz

ctural sealed glazing 86 mm (38.5 - 9 - 38.5) 86 mm (38.5 - 9 - 38.5) 86 mm (38.5 - 9 - 38.5) 22 mm joint between glass

from 30 mm to 50 mm $\,$

from 4 mm to 36 mm $\,$



TECHNICAL CHARACTERISTICS -**SEMI ELEMENT FACADE**

Interior visible width Exterior visible width Glass thickness



86 mm 68 mm (26 - 16 - 26) or 86 mm (35 - 16 - 35)

from 4 mm to 38 mm

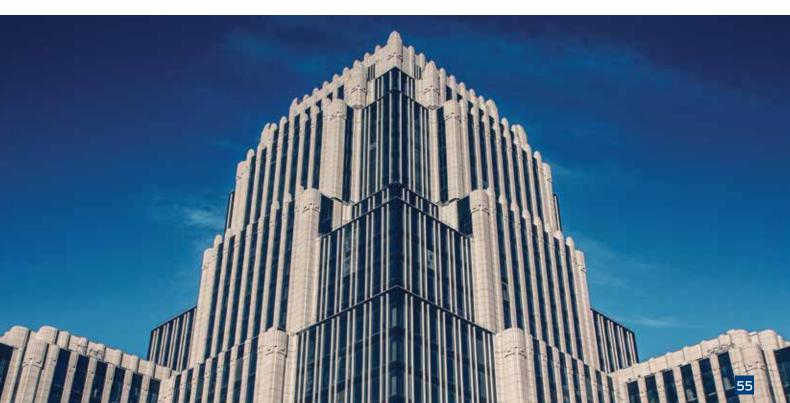


CW 86-SG structural sealed glazing

86 mm

22 mm joint between glass

from 4 mm to 36 mm



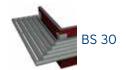








BS 40



BS 100/30

Sunscreening



BS 100 movable louvre

Reynaers Aluminium's BS (Brise Soleil) systems are designed to provide an aesthetic and efficient shading solution to almost any new and existing building. They are offered both standard or as a bespoke solution. Brise soleil is the generic term for a system of louvres which, when fitted to the external façade of a building, provides protection against solar heat and glare.





BS 100 PRE-ASSEMBLED **FRAME**

ellipse

140 mm / 180 mm

45°

yes



BS 100 FIXED LOUVRE

ellipse

from 120 to 400 mm 0°/15°/30°/45°/ 60°/75°/90°

yes



BS 100 MOVABLE LOUVRE

ellipse

from 120 to 400 mm

variable

yes



TECHNICAL CHARACTERISTICS

Shape louvres Size louvers

(Fixed) angle

TECHNICAL

Shape louvres

Size louvers

(Fixed) angle

CHARACTERISTICS

Walkway application

Walkway application



BS 100 LOUVRE GRIP

ellipse 200 / 250 / 300 $\mathsf{m}\mathsf{m}$

0°/15°/30°/45°

nο



BS 100 GLASS LOUVRES

hardened glass 366 x 10 / 12 / 14 / 17 mm 0°/15°/30°/45° /60°/75°/90° and variable yes

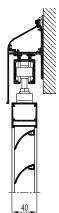


BS 30 FRAME SYSTEM

z-shaped 90 mm wide x 60 mm high

yes

yes





BS 40

Sunscreening

Contemporary shutters

The Brise Soleil 40 system offers an innovative and aesthetical sun shading solution for energy conservation, perfect for apartments and smaller buildings. The system consists of elements with z-shaped or curved slats. These sliding shutters are positioned on the outside of the windows and can be removed from the window pane by sliding them horizontally. This manipulation is done manually or can be motorised.

The panels of BS 40 are available in different sliding configurations, from one to three panels behind each other. This makes it an ideal solution to control both the light entrance and the comfort level inside the building. The BS 40 system comes with various mounting options, to allow installation in front of façades, between floors or in any combination thereof. This makes it an extremely versatile application.

TECHNICAL CHARACTERISTICS
Shape louvres
Max. vent height
Max. vent width
Max. vent weight
Sliding option
Operation

BS 40
z-shaped or curved / wood (optional)
3000 mm (depending on the width)
2000 mm (depending on the height)
100 kg
mono-, 2- & 3- rail
manual & motorised



Z-SHAPED LOUVRES



CURVED LOUVRES











PR 100



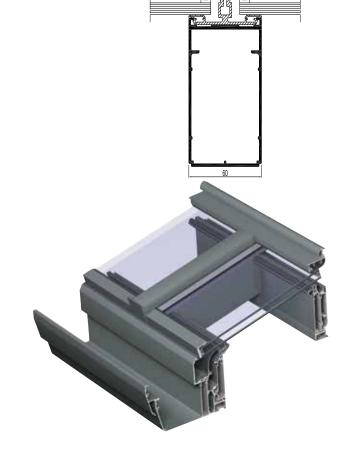
Cintro

CR 120 Conservatories

Concept Roof 120 is a thermally insulated conservatory roof system. The tubular aluminium rafters create space for integration of cabling and light on the inside while the small cover plates on the outside create a slim design.

This system is compatible with all Reynaers Aluminium window and door systems as well as sliding systems and offers the possibility to create a wide range of conservatory constructions and skylights.

Compatibility with motorised attic windows and roller shutters takes care of a safe and comfortable environment.



TECHNICAL CHARACTERISTICS	
Min. visible width of rafter	
System depth of rafter	
Slope	
Rooftop	
Glass thickness	
Glazing method	
Thermal insulation	

FUNCTIONAL	RENAISSANCE	ORANGERY
	60 mm	
70 mm	n / 100 mm / 120 mm / 15	60 mm
	5° - 45°	
	90° - 170°	
	From 6 mm to 40 mm	
Dry glazi	ng with EPDM or neutral	silicones
Omega-shaped	fiberglass reinforced pol synthetic profile	yamide strips +

PERFORMANCES



Thermal insulation



Wind load resistance

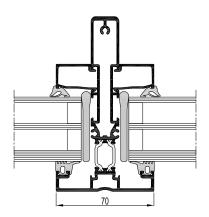


Water tightness

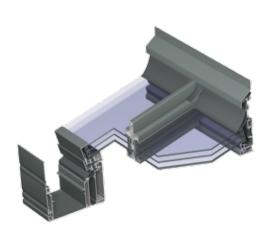
Specific calculation per profile combination please contact your Reynaers Aluminium fabricator

Up to 800 Pa (class 2)

Up to 750 Pa (class E750)







Thermo Roof 200 is a thermally insulated conservatory system offering a broad range of roof configurations. Depending on the design of the conservatory, the structure of the roof can be optimised to perfectly fit your needs. The interior of the roof structure has a minimalistic look. The gutters however, are available in three variants to match your style perfectly; Renaissance, Functional and Ellipse.

Furthermore, the conservatory system allows the integration of flush roof vents for ventilation, which can be electrically operated if desired. Anticipating any thermal requirements, the unique glazing concept of the system makes is perfectly suitable for triple glazing. TR 200 provides rafters which are not only able to carry the weight of the triple glazing but also to withstand the weight of snow load.





TECHNICAL CHARACTERISTICS

Overall system depth of rafter

Style variants

Min. visible width of rafter

Slope

Construction options

Glass thickness

DOUBLE GLAZING

inside: 18 mm outside: 23 - 58 mm

Functional / Renaissance / Ellipse

70 - 99 - 128 mm

5° - 45°

Hip and valley

6-40 mm

TRIPLE GLAZING

inside: 14.5 mm outside: 38 mm

Functional / Renaissance / Ellipse

70 - 99 - 128 mm

5° - 45°

Hip

30-62 mm

PERFORMANCES



Thermal insulation



Air tightness



Wind load resistance



Water tightness

U-value rafter down to 1.8 W/m²K For specific calculation per profile combination: please contact your Reynaers Aluminium fabricator.

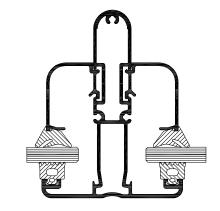
Up to 600 Pa (class 3)

Up to 800 Pa (class 2)

Up to 900 Pa (class E)

PR 100

Outside roof



Parallel Roof 100 is a non-insulated aluminium roof system that can be used as a terrace covering or a carport. PR 100 offers a range of rafters in different heights and widths so that high static requirements coming from snow load and own weight can be implemented without using steel reinforcements.



TECHNICAL CHARACTERISTICS
Height of rafte
Min. visible width of rafter
Slope
Glass thickness
Glazing method

SOFTLINE
100 - 150 mm
75 - 105 mm
5° - 45°
8 - 37 mm
dry glazing with EPDM









The profiles within the Cintro range have been developed as an architectural solution for bending profiles.

The possibilities for application are numerous and may even include light roofs. The system is able to incorporate a variety of glazing styles including plate glass and is the ideal system for applications where abundant daylight is required.

TECHNICAL CHARACTERISTICS
Inner visible width
Outer visible width
Height of the covers
Height of the bearing profile
Inertia of the bearing profile
Filling thickness

CINTRO
60 mm
60 mm
8 mm
8 - 35 mm
Ix= 0.2 to 9.8 cm ⁴
from 2 mm to 32 mm









Ventalis



Mosquito



RB 10



RB Glass





A breath of fresh air

Ventalis is an innovative and controllable ventilation system with a self-regulating airflow that can seamlessly be integrated in your windows or sliding doors. This modular system ensures both efficiency and an aesthetic design, allowing hassle-free cleaning and maintenance.

The patented self-regulating units automatically open and close the air inlet when wind pressure increases or decreases, keeping the incoming airflow constant. What's more, the Ventalis system is easily adjustable in 5 different positions, allowing users to easily adjust the ventilation degree.

The Ventalis system is installed at the top of the window or sliding door in the so-called 'dry rooms'. They can be built in different configurations, depending on the aesthetics or the required airflow, to comply with the applicable regulations. Ventalis can be integrated with a wide range of Reynaers Aluminium systems: ES 50, CS 68, CS 77, CP 130 and CP 155.



TECHNICAL PERFORMANCE

OF THE SELF-REGULATING UNIT		
Water tightness	class 9A (600 Pa)	
Airflow for each unit of 20 cm	10 m³/h (windows) - 12 m³/h (sliding elements)	
Self-regulation Self-regulation	class P3	
Extra exterior visible height	18.5 mm (windows) - 30.5 mm (sliding elements)	



Mosquito

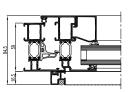
Complementary Systems

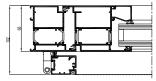


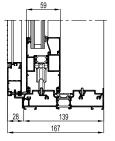
Keep out insects

Mosquito is a wire screen system, mounted on to a window, door or sliding door, which keeps out insects with a minimal interference of the view outside. The insect screen concept allows the windows, doors or sliding doors to be opened or closed without taking out the system. For the sliding insect screen, the rail is situated above or at the bottom of the door, assuring optimal comfort.

Obviously, the Mosquito system is compatible with all Reynaers Aluminium window, door and sliding door systems as well as systems from other system suppliers, even non aluminium windows like wood and PVC.







TECHNICAL CHARACTERISTICS

System depth

Corners

INSECT-RETARDANT WINDOWS

15 mm/22 mm

pre-formed synthetic supporting corner pieces or aluminium clampable corner.

INSECT-RETARDANT DOORS

28 mm

pneumatically crimped aluminium corner or aluminium clampable corner.

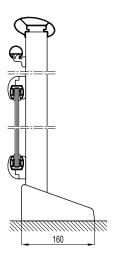
INSECT-RETARDANT SLIDING DOORS

28 mm

pneumatically crimped aluminium corner or aluminium clampable corner.



RB 10 Complementary Systems





Ensured safety

Reynaers Balustrade 10 is an elegant balustrade system, which guarantees optimum levels of safety. It has been tested in renowned test centres according to the most stringent European standards.

This system is available in three styles: Functional, Ellipse or Softline – this way your balustrade matches your style perfectly. Besides the traditional set-up of a balustrade, RB 10 also provides a very aesthetical way of incorporating panels, like multilayered glass, plexiglas or acrylic sheets allowing a multitude of design variants.

STANDARDS

STS 54

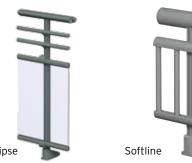
NEN 6702

NF P01-013

Polish standard balustrades

STYLE VARIANTS







RB Glass

Complementary



INVISIBLE SAFETY

High rise buildings without balconies are a worldwide seen architectural trend. Simultaneously safety cannot been jeopardized by transparency and design.

Reynaers Balustrade Glass is an add-on glass balustrade for larger window areas in high rise buildings. Even without balconies, you can safely open your windows and enjoy an unobstructed view.

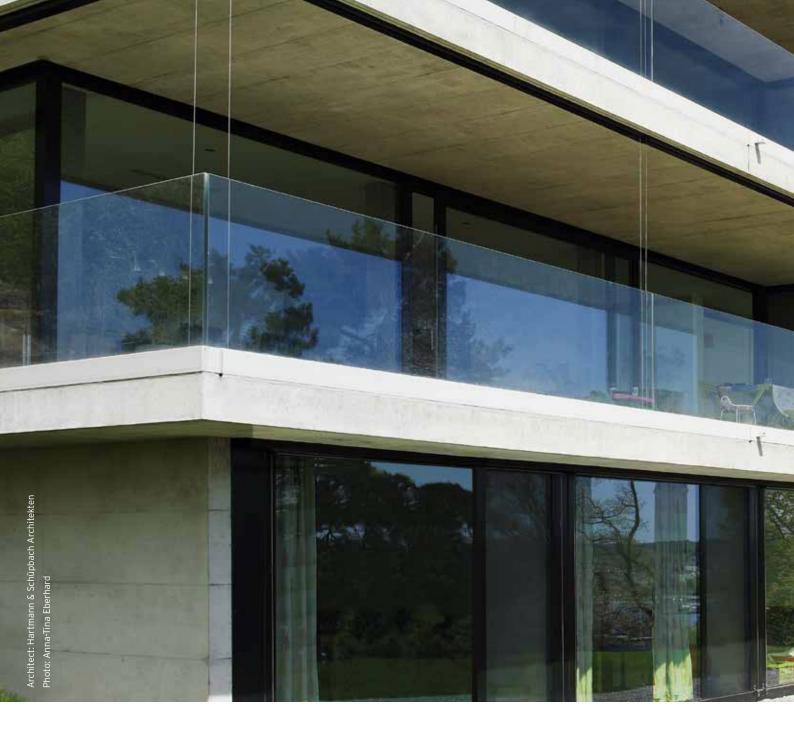
RB Glass is compatible with all MasterLine and Concept System Window and Door Systems, as well as Concept Patio and Hi-Finity Sliding Systems.

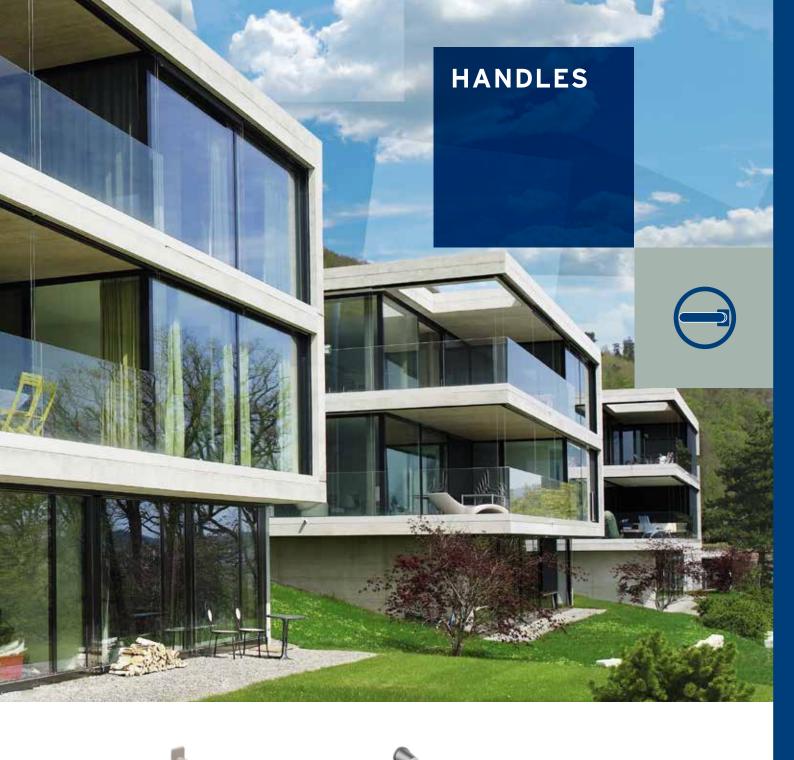
TECHNICAL CHARACTERISTICS

Min. glass thickness	
Min. glass width	
Max. glass width	
Min. glass height	

12.5 mm	
800 mm	
2000 mm	
1200 mm	









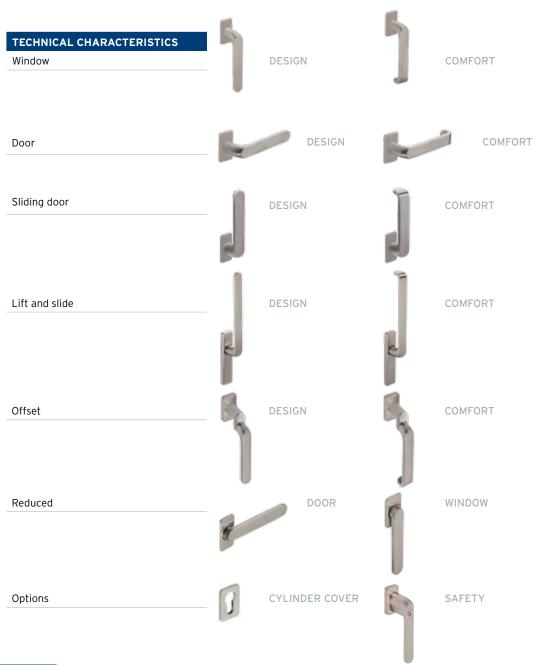
PuRity Handles



Design matters...

For people who desire ultimate design and top quality, a unique Reynaers Aluminium handle series is created, called PuRity. This series combines next-generation material and mechanical properties with the superior Italian design abilities of designer Leo De Carlo. De Carlo studied both Reynaers Aluminium's culture and project successes to capture the essence of his observations in the PuRity design, resulting in a timeless, minimal and rational design.

The PuRity handles are available in four standard colours (Sapphire Black, Eclipse, Moonlight White and Lithium). But PuRity is much more than just a great design. The combination of the material and its surface treatment makes the handles non-corrosive, hypoallergenic and 100% recyclable. The PuRity range is suited for all Reynaers Aluminium windows, doors, sliding doors and lift&slide doors.







True elegance

Create an aesthetic look with this minimalist timeless design, tailored to the needs of contemporary living, without sacrificing ease of use. The finishes (anodization or powder coatings) are endless for each type and ensure a uniform look, that fits into any type of architecture.







Affordable design

The brand new OLIMPO LINE introduces an up-to-date design that meets the latest aesthetic trends; the accuracy of all details ensures innovation, as well as a smart, easy and ergonomic shape to each product. The smooth shape of the Olimpo line is enhanced by the many finishes available which contribute to meet the highest quality and aesthetical requirements.



FEATURES	
Surface treatment	anodized and powder-coated
Colors	available in all RAL colors.
Uses	doors, sliding doors, inward opening windows





Elegance

Orchid is a beautiful and elegant handle type. This series is characterized by a curved shaped design that radiates in its simplicity. The handles are very reliable and cost-efficient, making them suitable for any window or door system. Orchid handles are available in white, black or anodized-look.

TECHNICAL CHARACTERISTICS

HANDLES WITH A 90° CLICK

Windows







A handle with a long body and a large grip. With or without built-in lock.



A handle with a short cover plate and large grip. With or without built in lock.



A door handle with a short cover plate and a large grip.



A sleek rounded handle specially designed for sliding doors.

HANDLES WITH RETURN SPRING

Surface treatment

FEATURES

Colors

Uses

all handles are painted

available in all RAL colors.

doors, sliding doors (CP 45Pa and CP 50), inward opening windows and outward opening windows (ES 45Pa) $\,$





Modern style

The Horizon handle is characterised by the modern and contemporary appearance. The horizontal details give the handle a very special and unique look. Its sleek design makes it the perfect combination for any window or door system. Horizon handles can either be anodized, or powder coated in one of our 400+ RAL-colours.

TECHNICAL CHARACTERISTICS

HANDLES WITH A 90° CLICK

Windows



A handle with a short cover plate and long grip

HANDLES WITH RETURN SPRING

Doors



A handle with a long cover plate or a short cover with cylinder cover and a long grip. Ideal for roll down shutters.



A handle with a long or short cover plate and a long grip. A cylinder cover is also available.

HANDLES WITH A 90° CLICK

Sliding doors



A handle with a long cover plate and a long grip.

FEATURES

Surface treatment

Colors

Uses

anodized or powder coated

available in all RAL colours

doors, sliding doors, inward opening windows (side hung, bottom hung, turn-tilt, tilt-turn)

 $[\]ensuremath{^{*}}$ Sliding door handles are only available for the systems CP 130 and CP 155.





Reliability

Shield is our safest and strongest series of handles. Created to withstand thieves, these handles are characterized by their rugged, robust and reliable design. Shield received two SKG stars on most of the range and on some specific articles even three stars as a safety score. The handles are available in unpolished, natural anodized colour.

TECHNICAL CHARACTERISTICS

HANDLES WITH A 90° CLICK

Windows



A handle with a short cover plate and a long grip



A handle with a short cover plate, long grip and built-in lock



A handle with a long face plate and a short, round and flat grip



A handle with a long face plate and a long straight grip



A handle with a long face plate an a long rounded grip

Doors

HANDLES WITH RETURN SPRING

HANDLES WITH A 90° CLICK

Sliding doors



A handle with a long face plate and a rounded grip



A handle with a long face plate and a long, round and reduced grip

FEATURES

Surface treatment

Colors

Uses

unpolished natural anodized for all handles (color .17), powder coated possible for doors and sliding doors

all models are available in unpolished natural anodized (color .17), for doors and slidings doors all RAL colours available

doors, inward opening windows and sliding doors (CP 130 and CP 155 only)











RB 10 Solar

BS 100/30 Solar

Solar



The Solar version of the already existing systems Brise Soleil 100 and 30, matches electricity production with protection against blinding and direct sunlight. BS 100 and BS 30 can handle all 3 types of PV panels: mono and poly chrystalline and amorphous cells.







TECHNICAL CHARACTERISTICS

Filling type

Inclination

BS 100 SOLAR

Glass edged photovoltaic modules, semi transparent or normal, crystalline or amorphous, single glassed, side PV panel box or back PV panel box

0° to 45°

BS 30 SOLAR

Standard or glass edged photovoltaic modules, semi transparent or normal, crystalline or amorphous, single glassed, back PV panel box

15° to 45°

CW60/RB 10 Solar

Solar

CW 60 Solar

The Concept Wall 60 Solar is the aesthetically pleasing high tech green energy solution, ideal for wall and roof

The system, totally insulated, has been designed to completely avoid shadow on the cells.

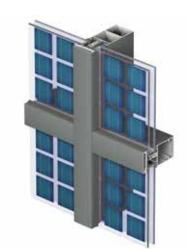
CW 60 Solar can handle all 3 types of PV panels: mono and poly chrystalline and amorphous cells.

RB 10 Solar

Reynaers Balustrade 10 SOLAR is a balustrade system, designed for the integration of photovoltaic panels and all its necessary wiring. The balustrade system can be applied on both accessible and inaccessible balconies.

RB 10 Solar positions the photovoltaic panels at the most efficient angle.

RB 10 Solar can handle all 3 types of PV panels: mono and poly chrystalline and amorphous cells.



#	

TECHNICAL
CHADACTEDISTICS

Filling type

Inclination

CW 60 SOLAR

Glass edged photovoltaic modules, semi transparent or normal, crystalline or amorphous, single or double glassed, side PV panel box or back PV panel box

5° to 90°



DD	10	COL	ΛD

Accessible balconies

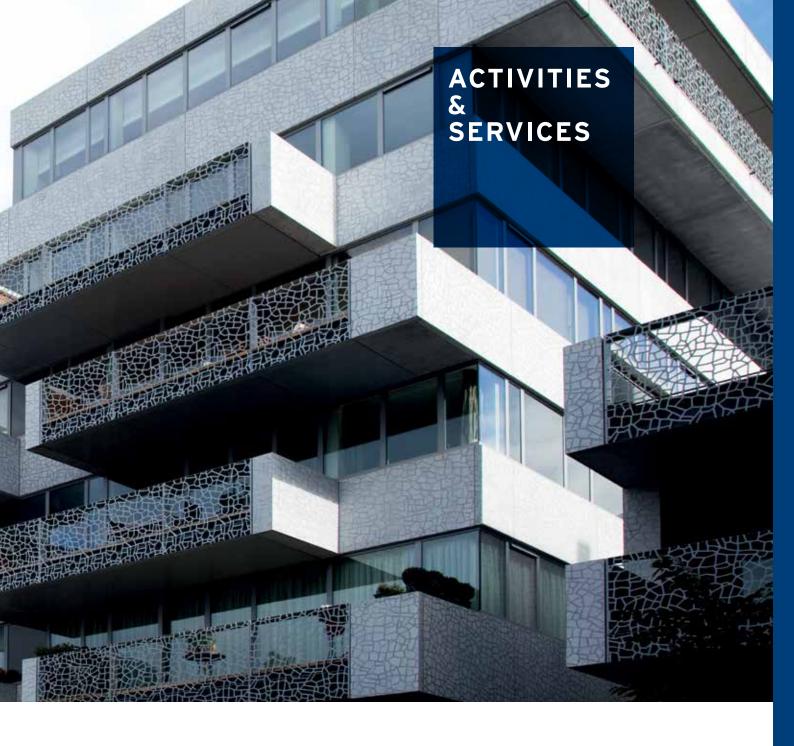
Non-Accessible balconies

Standard or glass edged photovoltaic modules, semi transparent or normal, crystalline or amorphous, single glassed, back PV panel box

90°

60° to 90°







THE REYNAERS CAMPUS

Introduction

Reynaers Campus is the headquarters of the Reynaers Group. This unique establishment with a total surface of 283,000 m² focuses on sharing the know-how and experience with architects, fabricators, contractors and other building partners.

The Reynaers Campus consists of:

- Experience centre
- Technology centre
- Training centre
- Automation centre

- Logistics Centre
- Production Centre
- Quality Control
- Offices

The Reynaers Campus is much more than just a building... It's a state of mind and a permanent incentive to implement values such as partnership and innovation. It is an international communication forum and a source of inspiration for all those involved in the building process.

EXPERIENCE CENTRE

The Reynaers Experience Centre is designed to bring people together and inspire you with our latest solutions and state-of-the-art technologies for architectural building solutions. In the Experience Room, you can discover our unique offering, assisted by inspiring digital applications.

For a full immersive experience, a visit to AVALON can be booked where you can visit future buildings through a shared virtual reality experience. AVALON is a high-end projection-based Virtual Reality room, specifically configured for architectural applications.

Together with an auditorium and multiple meeting rooms, this Experience Centre is the place to share know-how and strengthen partnerships. On the storytelling table you can discover more about our history, activities and corporate social responsibility.

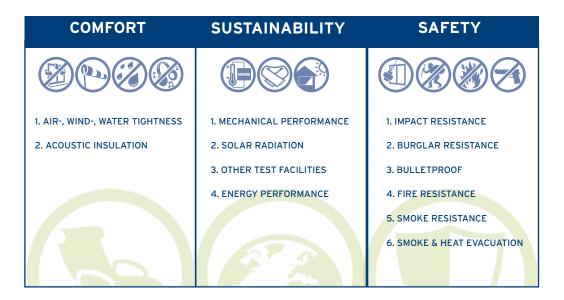




TECHNOLOGY CENTRE

The Reynaers Aluminium Technology Centre is the largest privately owned innovation and testing centre in Europe. All Reynaers Aluminium systems are rigorously tested to ensure that they meet the international standards.

The different tests are centered around these 3 MAJOR TRENDS in the aluminium industry:



One of the showpieces of the test centre is a state-of-the-art testing wall for curtain walls with a height of 15 m. On this specially developed test wall we carry out air-, wind- and water-tightness tests, especially on glass façades. Thanks to the 15 m height we can test multi-storey elements with connections playing an important role.

For windows and doors, we have a 20 m wide wall at our disposal to execute tests for air permeability, wind load and watertightness. There are 5 calibrated test walls with a total capacity for 10 different test positions.

To ensure that all Reynaers Aluminium systems remain stable and of high quality even after extensive use or after natural disasters, we carry out cyclic tests and earthquake or seismic tests.

In the acoustic test lab, aluminium façade elements are tested on their acoustic insulation. Different test elements can be built in thanks to a flexible partition wall between the sending and receiving room.

The Technology Centre also accommodates the Research Centre, with the R-cube and the R-Lab. The R-cube is a rotatable research and test installation designed for thermal performance analyses. The R-lab is the dedicated lab to test solutions at an early stage through the use of rapid prototyping and 3D printing.





TRAINING CENTRE

At Reynaers Aluminium we endorse the importance of qualitative production and installation for the long-term performance of our aluminium systems. That is why we maintain daily contacts with a strong international network of professional manufacturers and designers and why we advise and train our customers.

We organise numerous training sessions in order to teach our customers the necessary skills and know-how enabling them to provide their own customers with high-quality service. Our practical training is made up of both standard and specialised courses (assembly and installation) as well as software classes.

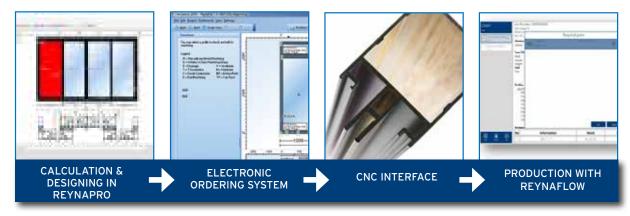
Reynaers Aluminium organizes an average of 2000 training days every year (both practical training and software training) for its customers and own employees. The trainees come from all over the world.



AUTOMATION CENTRE

Reynaers Aluminium offers a full range of automation solutions to the customer through dedicated partnerships. Every stage of the production process can be optimized using a fine-tuned combination of the right experience and know-how, state-of-the-art machinery, the most recent technologies and an optimized link with the ReynaPro software. In this way, the fabricator gets the opportunity to produce in the most efficient way, reduce costs and increase profitability.

On top of that, Reynaers Aluminium developed ReynaFlow, an intelligent control system and workflow manager that optimises the production processes in the realm of 'smart manufacturing' and improves quality and production time.



In terms of tooling, Reynaers Aluminium can offer you several possibilities:

Conventional tooling offer

In order to realize this, Reynaers Aluminium selects the best performing and most suitable solution for every type of operation on our profiles.

- Multifunctional punch tool: for all simple operations on profiles
- Notching saw: high quality tooling for the notching of curtain wall transoms



- Copy routers: specialized copy routers are available for more complex operations to profiles
- Glazing bead / single head saws: a range of sawing machines for small profiles

MULTIFUNCTIONAL PUNCH TOOL







NOTCHING SAW







SAWING GLAZING BEADS







For more detailed information about our tooling offer, visit our Extranet - www.reynaers-extranet.com

A selection of our machine offer



For an optimised production, Reynaers Aluminium established close partnerships with machine suppliers, to optimally set-up and install different types of machines, but also to ensure full service and support after installation. Over the last 10 years, this collaboration resulted in the installation of over 200 Elumatec machines all over Europe.

Double mitre saw: 2 types of high quality double mitre saws, with special clamping blocks to fully support the entire Reynaers Aluminium profile range.

DG104



CNC- machining centres: a whole range of state-of-the-art CNC machining centres, with clamping blocks and tooling sets to allow all necessary operations to the Reynaers Aluminium profiles.



Corner press: dedicated 1 and 4 corner press machines to create high quality corner connections, with special quickchange sets for supports and crimping knives to reduce adjustment time.



Transporting units: a combination of tables and transporting units are able to process your elements throughout the workshop with minimal risk of damage.

Software

To allow fully automated production of our systems, there is a direct link between miscellaneous machines and the ReynaPro software. This ReynaPro software includes a database of all profiles and accessories, allowing calculation and manufacturing of projects. The technical data and commercial information are continuously updated and supported by our technical service. Today, almost 2400 supported ReynaPro-licenses are in use.

To further support fabricators, Reynaers offers **ReynaFlow:** an intelligent control system and workflow manager that optimizes production processes in the realm of 'smart manufacturing', also known as Industry 4.0. While most production processes are still manually driven, ReynaFlow digitally links the full manufacturing process, from preparation (cutting, machining), through connection and sealing to the final assembly and finishing. By providing on the spot information, tracking errors and monitoring each phase in real time, both quality and production times are vastly improved.



PRODUCTION CENTRE

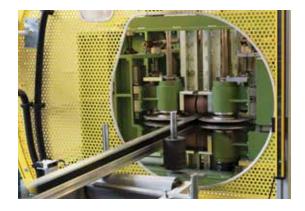
Thermal insulation

The thermal insulation of aluminium profiles requires a lot of know-how and experience. In order to ensure the highest quality, we created our own insulation company, ERAP.

The outer and inner chambers of the profiles are joined with glass-fibre reinforced polyamide or Noryl strips. These strips create a thermal break. The insulation value depends on the height of the strip, the type of strip and whether or not extra foam is used.

In total, Reynaers insulates ±100,000 profiles per month (= ±700,000 metres of profiles) with 9 machines.





LOGISTICS CENTRE

Our customers benefit from our strong logistics organisation, which enables us to quickly deliver products from our various distribution centres worldwide.

The warehouses in Duffel cover a total surface area of almost 62,000 m², equal to ca. 9 football fields. Stock is permanently maintained through continuous delivery by more than 200 different suppliers. The Reynaers Aluminium Logistics Centre consists of Profiles warehouses (approx. 50,000 m²) and an Accessories warehouse.

The Profiles warehouses provide storage for 4,500 different profiles (mostly 7 metres long). After insulation, lacquering and anodisation, orders are sorted, packed and prepared for transport.

The Accessories warehouse (approx. 12,000 m²) stores 5,000 different accessories, such as handles, hinges, locks and gaskets (over 7 million units).

Worldwide, Reynaers Aluminium has 17 distribution centres.



SURFACE TREATMENT

Colors & finishing

For the surface treatment of the profiles we collaborate with selected painting companies that strictly adhere to our standards and regulations.

Reynaers Group can provide you with different treatments and finishes, depending on your personal taste and on the building environment:

Powder coating:

Suitable for all environments, except mild-aggressive and aggressive environments. Available in large color variations, and has different shine and finishing possibilities.

Pre-anodisation and powdercoating:

Pre-anodisation for aggressive environments (Coastal area < 1km, swimming pool, ...) or Seaside treatment for mild aggressive environments (Coastal area 1-10km, railways, ...) gives the finish increased corrosion resistance. Available in large color variations, and has different shine and finishing possibilities.

Anodisation:

Suitable for all environments, layer thickness is adjusted for aggressive environments. Available in different colors: natural, champagne, bronze and black. Preserves the natural look of aluminium



REYNAERS CAMPUS OFFICES

The Reynaers Campus houses the Belgium-Luxembourg organisation and centralises the corporate functions for the entire Reynaers Group. These corporate departments can provide you with a lot of added value.

BESPOKE SOLUTIONS

Reynaers Aluminium Consult & Project Team

"I have a dream..." Almost everything starts with a dream, a vision. With imagination, enthusiasm and a little help from Reynaers Aluminium, your dream becomes a project that will soon become reality.

As Reynaers Aluminium opens the window on the world, we plan to be there for you not only this year but during the years to come. We, Reynaers Aluminium consults, engineers and technicians are your professional partners, and we can create a special design. We will support you every step of the way, and we will help you to bring your projects to life!

Bespoke solutions tested and approved

New projects need suitable solutions. That's why we will even develop new products for you. You need a new profile, a special design and different specifications in one of your new projects? Illustrative in this respect is the Heathrow and Gatwick airports project, where special product teams were assigned the task of designing concepts into reality.

All our products' standard measurements are tested and certified. But every so often you will plan a module not covered by standard measurements or that has to meet special requirements. After agreement, Reynaers Aluminium is able to carry out the design for you and test it for wind resistance, water tightness and stability. The testing facilities at the Reynaers Campus are fully compliant with official standards.





RESEARCH & DEVELOPMENT

Reynaers Aluminium puts enormous investment into research and development to maintain its position at the forefront of the industry. We work closely with architects and building contractors all over the world, developing systems and solutions for total facade construction – from the design concept through to manufacture and installation.

Reynaers Aluminium's high-performance window, door and curtain-walling systems are developed with the aim of enhancing the energy-efficiency, design, comfort and safety of buildings.

In all our developments we follow these 4 key innovation drivers:



Sustainability

energy efficiency: thermal insulation, sunscreening, solar cradle-to-cradle, green labels



Safety

burglar proof, fire proof, bullet proof, smoke evacuation, earth quake proof



Comfort

interior climate, acoustic insulation, integration of systems in floors, daylight, domotics, water-tightness



Design

transparency: large glass panes, slim profiles, full glass panes

COMMUNICATION

Reynaers Aluminium develops customised technical and marketing tools to provide solutions for our partners with all the means to work as well and efficiently as possible.

A large range of tools and services is at our customers' disposal:

- Corporate website: www.reynaers.com
- Point of Sales material
- Product brochures
- Corporate brochures
- Reference book
- Demo assembly movies on dedicated YouTube channel
- Presence at fairs







ACTIVITIES & SERVICES

Discover our inspirations platform

We're pleased to inform you that our inspirational website is online: https://www.reynaers.com/architects/get-inspired

This digital inspiration platform, evolved from our well-known Report magazine, increases our worldwide reach to all stakeholders.

A new showcase article is published regularly and offers inspiring pictures, a detailed article, interviews, video's and technical solutions.

Explore this inspirational website with interesting functionalities and share the projects with your network via the social share buttons!



Extranet

On the extranet site our partners have the opportunity to access up-to-date technical and commercial information such as:

- product catalogues for fabricators with information about all Reynaers systems: profile overviews, section drawings, assembly steps, ...
- software packages and calculation tools e.g.
- overview of the trainings we offer and the training calendar
- machines, software, hardware, assembly drawings, product prescriptions
- CE + DOP documents
- EOS (Electronic Ordering System)
- U-tool for insulation calculations
- Ventalis tool for the calculation of natural airflow according to relevant standards
- other technical information e.g. system characteristics, performances

QUALITY MANAGEMENT

Reynaers Aluminium aims to still be valued by its partners ten years from now. Customer satisfaction and quality assurance are closely linked, so they are both high on our list of priorities. Together with our suppliers we endeavour to guarantee permanent high quality.



Reynaers Aluminium provides certainty: 10-year system guarantee

At each stage of the production process our quality control department carries out very stringent checks, which enable us to guarantee that our systems satisfy country- and product specific technical approvals and standards. In addition we grant a 10-year system guarantee. This is an insurance on the aluminium, lacquer or anodisation layer, as well as on the insulation. On the accessories, we grant a 5-year system guarantee.



ISO 9001:2008 certification: proves permanent quality control

Striving for quality is no empty slogan at Reynaers Aluminium. We permanently and systematically update our quality control as proven by our ISO 9001: 2008 certification. In order to acquire and maintain this certification, our departments responsible for design, production and delivery of all our products and services, are regularly inspected.



Qualicoat guarantees top-quality lacquer work

All our lacquering partners bear the European Qualicoat quality label, which implies that they meet specific requirements with respect to seals, service life, UV-resistance, discolouration, etc., representing the best possible guarantee for the quality of the lacquer work.



Qualanod guarantees optimal anodisation

All our anodising suppliers bear the European Qualanod quality label and consequently meet specific requirements with respect to seals, service life, UV-resistance, discolouration, etc., representing the best guarantee for the quality of the anodisation.

10 YEAR GUARANTEE

Reynaers Aluminium guarantees that the Reynaers Aluminium systems meet the technical specifications and standards of the country and the product in question. The current processing and maintenance regulations mentioned in the Reynaers Aluminium catalogues determine the extent of this 10 year guarantee (a 5 year guarantee for wearing parts).



Object of the Guarantee

The products delivered by Reynaers Aluminium have the following properties and/or guarantees, with explicit exception of items detailed under the headings "validity" and "exclusions".

Aluminium

Standards extruded aluminium:

- Composition to standard EN 573 parts 3 and 4;
- Mechanical properties to standard EN 755 part 2;
- Tolerances to standard DIN 17 615 and EN 12020 part 2;

Standards rolled aluminium:

- Composition painted aluminium EN AW 1050 A H24 to standard EN 573 part 3;
- Composition anodised aluminium EN AW 5005 H14 AQ to standard EN 573 part 3;
- Mechanical properties to standard EN 485 part 2;
- Tolerances to standard EN 485 part 4.

Painting and Anodising

A 10 year guarantee on:

- Detachment, flaking and blistering of the treated aluminium parts.
- Corrosion, including filiform corrosion for material AlMgSi0.5F22 (AW 6060 and AW 6063) with additional requirements Zn ≤ 0.15%; Cu ≤ 0.02%; Pb ≤ 0.022%; Si: 0.30 -0.55%; Fe: 0.10-0.30%; Mg: 0.35%- 0.60%; Mn ≤ 0.10%; Cr ≤ 0.05%; Ti ≤ 0.10%; other elements individually ≤ 0.05% together ≤ 0.15%; after treatment T66;
- UV resistance, discolouring and loss of gloss exceeding the defined tolerances, according to Qualicoat and Qualanod regulations (latest editions).
- The paintwork warranty can be extended under specific conditions. These conditions can be obtained from Reynaers Aluminium.

Insulation

A 10 year guarantee on:

- Adherence between the polyamide strips and the aluminium;
- Preservation of the thermal and mechanical properties of the insulator, within the boundaries defined by the technical specifications.

Accessories

Accessories, gaskets and synthetic profiles:

- A 10 year guarantee on properties, functionality and design, within restrictions defined by technical specifications;
- Painting and anodising: see above;
- A 5 year guarantee on wearing parts, only applies to normal and realistically foreseeable use.
- A 2 year guarantee on electrical and wood components

CE MARKING

The CE - Marking is now required also in the European building industry. Products have to show the conformity with the appropriate European Regulation. The Construction Products Regulation (CPR) aims to promote the free flow of products within the European Union by overcoming the technical barriers between standards that had previously applied to different countries. The CPR now lays down the basic requirements that products must meet in terms of:

- Mechanical resistance and stability,
- · Safety in case of fire,
- Hygiene, health and the environment,
- Sustainable use of natural resources

- · Safety and accessibility in use,
- Protection against noise
- Energy economy and heat retention

For the CE - Marking of facades the harmonized product standard 14351-1 is relevant for windows and doors and 13830 for curtain walls.

This obligation is not only valid for enterprises exporting to other European Union countries, but also for those, which are exclusively active in their homeland.

The Reynaers Aluminium systems can be CE-marked in accordance with the relevant product standards. This implicates that they are fully compliant with the EU Construction Products Regulation (CPR).

The procedure for CE - Marking of products entails a process that starts with Type Testing (TT) where all the relevant elements of products are tested to determine the extent to which a product will meet the standards that apply to it, and classes of compliance are allocated. A second important item in the CE - Marking is Factory Production Control (FPC). This ensures that the products are manufactured under controlled conditions to ensure that each product meets the performances as →determined during the Type Testing.

To prepare yourselves, Reynaers Aluminium as your partner issued a CE - Marking brochure and other tools to inform you about every step necessary for CE marking.

ACTIVITIES & SERVICES

GREEN COMMITMENT

Reynaers Aluminium is aware that companies play an important role in the care for the environment. That is the reason why Reynaers Aluminium is constantly searching for new ways to become "greener". This means that Reynaers Aluminium is passionately interested in sustainability, by being at the forefront in the development of energy saving and sustainable products. This has resulted in some actions, taken by Reynaers Aluminium to try and make a difference.



First of all, aluminium is a material which is 100% recyclable without any losses in quality. This allows Reynaers Aluminium to use aluminium profiles with a high recycled content, with guaranteed quality. On the other hand, it also allows all systems to be recycled at the end of their lives.

Due to the use of aluminium, Reynaers Aluminium is able to develop slim profiles for large glass panes, allowing more light to enter and therefore leading to a comfortable indoor environment.

Aside this, the energy-efficiency of our systems is a very important topic for Reynaers Aluminium. A good example of this is the development of our new MasterLine platform, a window and door system which can be used for passive houses. Also our high insulated sliding elements and curtain walls can minimize the building's energy loss.

The integration of external sunscreening (Brise Soleil range) onto our façade systems makes it possible to control the sun entering the building minimizing the use of energy intensive air-conditioning. The integration of photovoltaic panels into our innovative façades, even transforms the solar energy into green electricity.



BREEAM

All of this contributes to the realization of sustainable buildings and leads to credits for LEED (Leadership in Energy and Environmental Design) and BREEAM (BRE Environmental Assessment Method), just two examples of assessment methods which set the standard for best practice in sustainable architecture.

These certifications show that the buildings are built taking into account environmental issues such as: energy demands of the building, recycling of materials, use of water, comfort of people inside the building, use of renewable energy sources, location of the building,...

The increasing interest in these types of certificates proves the importance of sustainable buildings and products. Reynaers Aluminium's innovative products, continuing research and focus on knowledge exchange will allow the company to make a genuine contribution to this new way of building.



ABOUT REYNAERS ALUMINIUM

Reynaers Aluminium is a leading European specialist in the development and marketing of innovative and sustainable aluminium solutions for windows, doors, curtain walling, sliding systems, sunscreening and conservatories. Besides offering an extensive range of standard solutions, the company also develops solutions that are tailored to the individual customer or project. Research, product development and testing are conducted at the Reynaers Campus, the sector's largest private innovation and testing centre, located in Duffel (Belgium). In addition, the company also provides extensive technical support and advice to fabricators, contractors and architects.

Reynaers Aluminium is the market leader in Belgium and has acquired a strong market position in the 40 countries where it has its own sites. The company's success is due in part to the close partnership between Reynaers and 5,000 partner fabricators, architects and project developers worldwide.

In 2017 the Reynaers group achieved a turnover of over 426 million euros and has nearly 2000 employees worldwide.

For more information: www.reynaers.com

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TOGETHER FOR BETTER