HOLZ-ALV WOOD-ALV WOOD

PV(-ALV

ALV

HOLZ



## Aluminium systems WINDOWS | DOORS | FACADES





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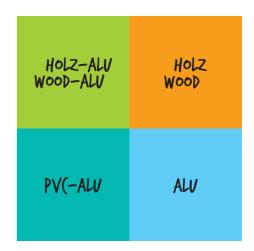
#### ALUMINIUM SYSTEMS

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## **TOGETHER** we set the course of development

Aluron is the only manufacturer in Poland with aluminium systems for every segment of the woodwork market. It is for this reason that it is referred to as an **ALU MULTISYSTEM CONSTRUCTOR**.



Aluron's aim is to provide a comprehensive service to its partners in terms of:

## Complete systems for aluminium profiles, plastic components and accessories, comprising:

- profiles and accessories for the manufacture of wooden windows and doors: drip caps, strips, sills and thresholds,
- construction systems for wooden-aluminium windows, doors, facades and winter gardens, construction systems for the manufacture of plastic-aluminium windows and doors,
- construction systems for the manufacture of aluminium windows, doors, facades,
- software to support the construction and production processes,
- tooling: tools, presses, templates, cutters for wooden joinery.

#### Technological support and advice including:

- design and implementation of individual solutions (profiles and accessories),
- preparation of quotations,
- professional product and technical training,
- advice and service.

#### Services:

- painting in a modern powder paint shop, certified with the Qualicoat quality mark
- applying woodgrain coatings to the aluminium surface
- welding of aluminium profiles,
- extrusion of thermal breaks and seals,
- injection moulding of plastic and light metal parts,
- bending of aluminium profiles and sheets,
- machining with CNC machine tools,
- a measuring and testing laboratory to determine the level of waterproofness, air permeability or wind load of the tested structure.





Innovative 5-chamber technology to improve structural rigidity.

Five thermal options available.

modern architectural trends.

Cover for the fitting groove.

The window sash flushed with the frame from

Two variants of hardware pusher: aluminum

Option of designing large glazing adapted to



Option to design turn windows, turn-and-tilt windows, turn-and-tilt windows with movable mullion and tilt windows.



Lower profiles of leaves and low assemblies more light.



A solution compatible with mosquito nets system from Aluron.



Elegant aluminium drain plugs in the color



Sash available in two hardware groove versions: ALU and PVC.



Temperature distribution

Possibility of crimping and doweling.

## Five-chamber system for passive windows

## **AS 110 PASSIV**

The AS 110 PASSIV system is designed for the manufacture of windows, patio doors and display windows with the highest level of thermal insulation on the market.

There are up to five thermal variants on offer, including a passive variant certified at Passive House in Darmstadt. This is a state-of-the-art design for glazing with heavy 3-chamber packages. It allows the excellent static parameters of the sash to be maintained. The system has very high acoustic insulation.



#### SYSTEM CHARACTERISTICS

3500 mm	1700 mm	300 kg	110 mm	47-74.5 mm	119 mm	54 mm	32 mm
Max. sash height	Max. sash width	Max. sash weight	Frame depth	Glazing range	Depth of window sashes	Min. visible frame width	Min. visible sash width

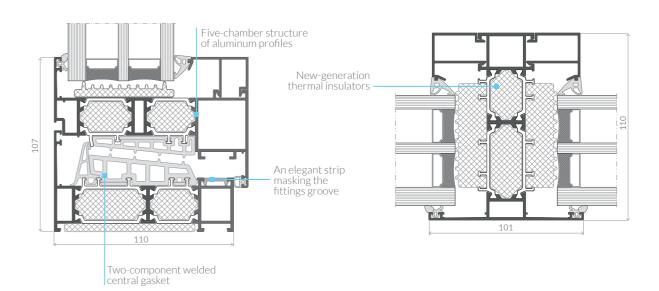
Section through opening window

Section through a fixed window mullion

#### SELECTED SYSTEM PARAMETERS

from 0,51 W/m²K*	class E1950	class 4	class C5/B5	class 4
Thermal insulation Uw	Water tightness	Air permeability	Wind load resistance	Mechanical strength

<sup>\*</sup>Full list of thermal variants of AS 110 Passiv available on page 88





Three-chamber structure of aluminum



Invisible window sash - from the outside









Two variants of hardware pusher: aluminum and PVC.













Temperature distribution

## Hidden sash window system

## **AS 80US**

An aesthetically pleasing solution for the construction of single and multi-paned windows.

It is dedicated to designs where the window sash is to be invisible from the outside of the building. Regardless of whether we are dealing with fixed or opening panels, all neighbouring windows look identical from the outside. The AS 80 US system is compatible with other Aluron aluminium systems.



#### SELECTED SYSTEM PARAMETERS

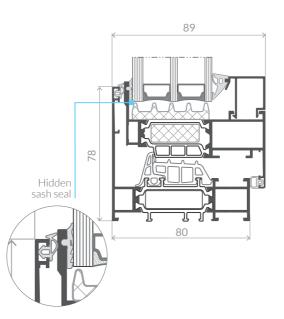
from 0,71 W/m <sup>2</sup> K*	class E 2400 Pa	class 4	class C3	4
Thermal insulation Uw	Water tightness	Air permeability	Wind load resistance	Thermal variants

<sup>\*</sup>Full list of thermal variants of AS 80US Passiv available on page 88

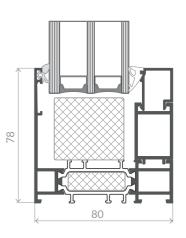
#### SYSTEM CHARACTERISTICS

2700 mm	1400 mm	200 kg	80 mm	21-68 mm	84 mm	78 mm
Max. sash	Max. sash	Max. sash	Frame	Glazing	Window	Min. visible
height	width	weight	depth	range	sash depth	frame width

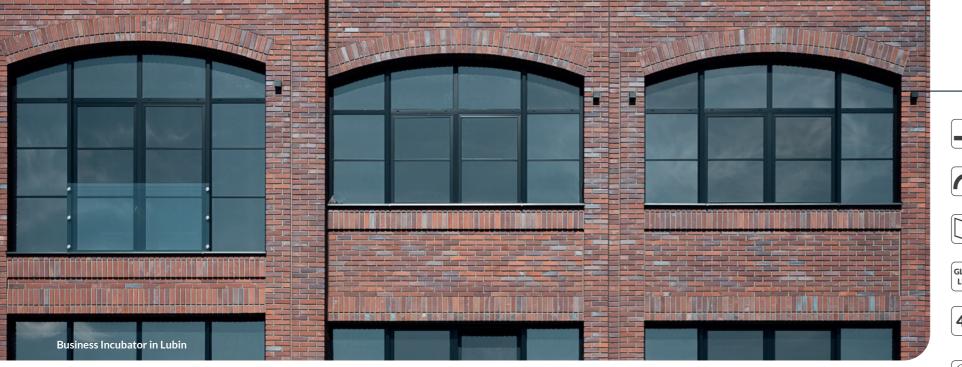
## Section through an opening window with hidden sash



#### Section through the fixed panel of a window with hidden sash



Hidden sash window system AS 80US www.aluron.pl More technical drawings on p. 88



## Window and door system

## **AS 75 WINDOW**

The AS 75 three-chamber system is designed for the manufacture of thermally insulated window and balcony door structures.

The robust construction, durability of the aluminium and rich design guarantee many years of durability and aesthetics. The system meets the requirements of all current and future thermal and acoustic insulation standards, as confirmed by certificates from renowned research institutes.



#### SELECTED SYSTEM PARAMETERS

from 0.67 W/m <sup>2</sup> K*	class RC2, RC3, RC4	class 4	class E1950	class C5	47(-2;-6) dB
Thermal insulation Uw	Burglar resistance	Air permeability	Watertightness	Resistance to wind load	Sound insulation

<sup>\*</sup>Full list of thermal variants of AS 75 window available on page 89

#### **DESIGN & FUNCTIONALITY**



including welded ones.

stepped glass window.

Four thermal options available.

All-glass corner.

Option of designing arched constructions,

Available solutions: all-glass corner and



Production optimisation through use of the same fasteners and seals.



System compatible with intelligent house



Option to design turn windows, turn-and-tilt windows, turn-and-tilt windows with movable mullion and tilt windows.



Two variants of hardware pusher: aluminum and PVC.



Cover for the fitting groove.



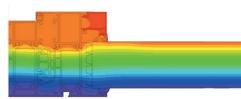


Elegant aluminium drain plugs.



nthracite seals

spatial version.

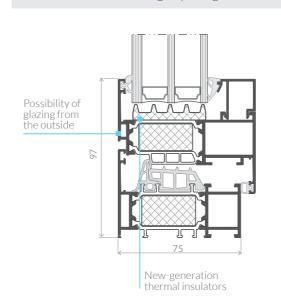


Temperature distribution

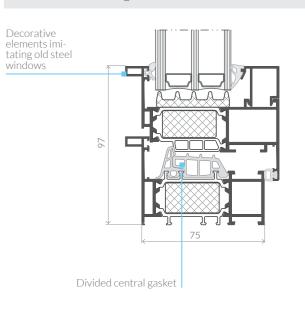
#### SYSTEM CHARACTERISTICS

3000 mm	1600 mm	200 kg	75 mm	16-66 mm	46 mm	33 mm
Max. sash	Max. sash	Max. sash	Installation	Glazing	Min. visible	Min. visible
height	width	weight	depth	range	frame width	sash width

#### Section through opening window



#### Section through an INDUSTRIAL window



10 Window and door system AS 75 Window www.aluron.pl 11



Co AF

Compatible with facade systems: AF 50, AF 50S, AF 50KW Quantum and ATF 50.

Two leaf widths to choose from: 180 and 220

Designed for structures up to 3000 mm high.

Drainage is carried out in the lower part of

the profile using a system aluminum end plug.

Two variants of hardware pusher: aluminum



Possibility of using hidden fittings from Sobinco and Roto brands.



Dedicated, original sash plugs.



Effective ventilation of rooms.



Production optimization – using the same gaskets and fasteners.

## Ventilation window sash

## **AS 75V**

The AS 75V system is intended for the construction of ventilation sashes used in connection with a facade or showcases.

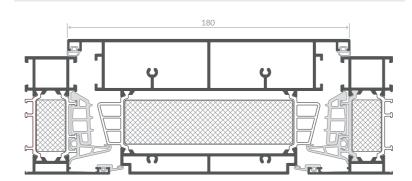
These types of structures are used instead of standard windows. They ensure free air circulation and constitute an attractive architectural element. The solution is structurally based on the popular Aluron AS 75 window system, which guarantees optimization of the materials used (e.g. common frame). AS 75V allows the creation of tall structures equipped with a ventilation sash opening inwards.



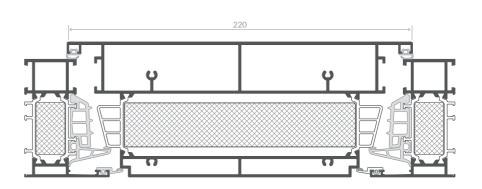
#### SELECTED SYSTEM PARAMETERS

from 0.9 W/m²K	class C5/B5	class 4	E1500	3000 mm	180 mm, 220 mm	75 mm
Thermal insulation Uw	Resistance to wind load	Air permeability	Watertightness	Max. sash height	Available sash widths	Frame depth

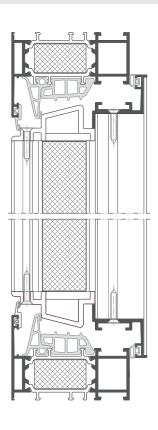
#### Horizontal cross-section through the ventilation sash 180



#### Horizontal cross-section through the ventilation sash 220



## Vertical cross-section through the ventilation sash



12 Ventilation window sash AS 75V



Three-chamber structure of aluminum profiles.





Production optimization – using the same gaskets and fasteners.

Excellent tightness parameters.



Wide range of available design variants.



Space saving – an open leaf does not take up space inside the building.



May be combined with other systems by ALURON



Wide range of additional accessories.



Temperature distribution

High comfort of use and elegant appearance.

## Windows opening outwards

## **AS 750W**

System of thermally insulated aluminium profiles designed for the execution of top-class windows that open outwards.

AS 750W is an expansion of the popular AS 75 system for the execution of window and door structures. Outward leaf opening direction, very good thermal insulation level and excellent tightness parameters make this type of structures highly-sought after in demanding markets of the United Kingdom, Scandinavian countries and other regions characterized, among others, by strong winds. Unusual tightness of structures based on the AS 750W is, among other things, due to the fact that the wind presses the leaf against the frame. The system will be available for sale from the second half of 2025.



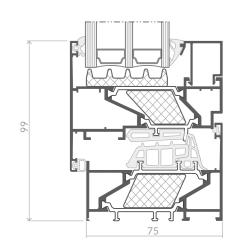
## SYSTEM CHARACTERISTICS

2700 mm	1400 mm	150 kg	75 mm	16-66 mm	33 mm	72 mm
Max. sash height	Max. sash width	Max. sash weight	Casing depth	Glazing range	Min. visible frame width	Min. visible sash width

Cross-section through a window opening outwards (standard hinges)

75

Cross-section through a window opening outwards



#### SELECTED SYSTEM PARAMETERS

from 0,81 W/m²K	class 4	class E1050Pa	class C5
Thermal insulation Uw	Air permeability	Water tightness	Resistance to wind load

14 Windows opening outwards AS 750W www.aluron.pl 15





Option of using as an internal structure in two colours.

Option of constructing a feed window in the

Can be used as a partition in winter gardens.



Self-cleaning glazing area.



Possibility to use notch and surface hinges in



Option of designing curved constructions, including welded constructions



Elegant aluminium drain plugs.





Two variants of hardware pusher: aluminum

ase the passage light.



Temperature distribution

## Window and door system for external installation

## **AS 52**

Thermally insulated AS 52 system is designed for lightweight, aluminium structures with high performance properties for exterior installation.

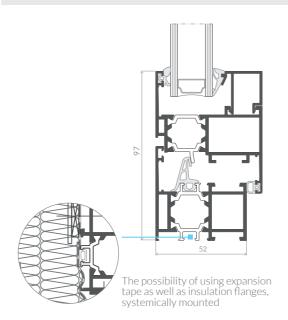
Designed with the concept of downsizing, the AS 52 System provides excellent optimisation of the profiles used.



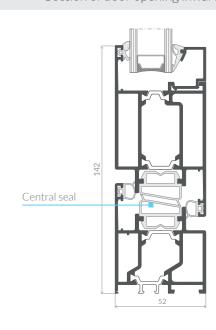
#### SYSTEM CHARACTERISTICS

52 mm	61 mm	52 mm	2-42.5 mm	2-33.5 mm
Depth of window/ door frame	Depth of window sash	Depth of door leaf	Glazing range of window construction	Glazing range of door construction

#### Opening window section



#### Section of door opening inward



#### SELECTED SYSTEM PARAMETERS

from1.55 W/m <sup>2</sup> K	from 1.06 W/m <sup>2</sup> K	class 4	E 1350	class A5	class C3	class C1
Thermal insulation of door Ud	Thermal insulation of window Uw	Air permeability	Watertightness of window constructions	Watertightness of door constructions	Wind load resistance of window constructions	Wind load resistance of door constructions

16 Window and door system for external installation AS 52 www.aluron.pl 17 More technical drawings on p. 89



Three-chamber structure of aluminum profiles.





Option to construct doors opening inward and outward.

Option of designing single- and double-leaf doors as well as doors with side and top transom lights.

Easy assembly and prefabrication.



Optimisation of the system accessories used.



A solution compatible with all Aluron systems.



The system is designed for constructing doors with infill in the form of insulating glass or non-transparent panel.



System-integrated aluminium substructure for easy assembly and improved thermal insulation.



Temperature distribution

Elegant aluminium drain plugs.

## Door system

## **AS 100**

The AS 100 three-chamber system is designed for the construction of thermally insulated displays and doors with high performance properties. The solution ensures excellent thermal and acoustic insulation of the created external development, while guaranteeing simplicity of execution.

The system is available in three thermal variants, making it easy to design structures to the thermal insulation parameters required for the design. The excellent thermal performance of the solution also translates into lower costs incurred for heating.



#### SELECTED SYSTEM PARAMETERS

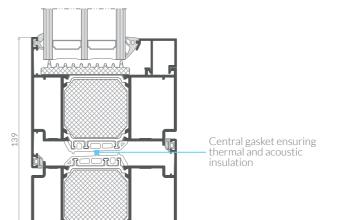
from 0.7 W/m <sup>2</sup> K*	class 4	E750 Pa	class C5
Thermal insulation Ud	Air	Water	Wind load
	permeability	tightness	resistance

<sup>\*</sup>Full list of thermal variants of AS 100 available on page 90

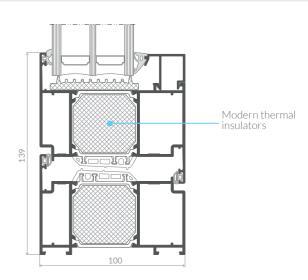
#### SYSTEM CHARACTERISTICS

3000 mm	1400 mm	280 kg	100 mm	37-68 mm	139 mm	69 mm
Max. leaf	Max. leaf	Max. leaf	Door profile	Glazing	Composition frame and leaf	Min. visible
height	width	weight	depth	range		frame width

#### $Section\ through\ doors\ opening\ outwards$



Section through doors opening inwards



18 Door system AS 100 www.aluron.pl 19



Three-chamber structure of aluminum profiles.







Multipoint locks as a standard, availability of electromotive locks witha ccess control.

Possibility of designing single and double-leaf doors as well as doors with side and upper lights.

Available types of hinges: surface, roller and concealed



Several thermal variants available.



Possibility of building doors that open inwards and outwards.



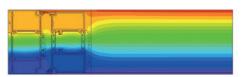
Possibility of combining with other systems from the Aluron offer.



Systemically integrated aluminium sill plate facilitating assembly and improving thermal insulation



Available in GLASS LINE version with an all-glass panel.



Temperature distribution

## Panel door system

## **AS 100P**

Three-chamber system designed for prefabrication of thermally insulated doors equipped with a panel glued on the entire surface of the leaf.

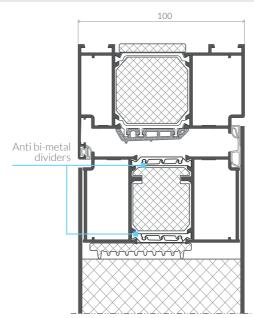
The system fits perfectly in both modern and classic buildings. Panel doors in the AS 100P system are designed for single-unit installation as well as composite door structures with side panels. Solid workmanship, durability of aluminum and high-class design features guarantee great longevity. Meanwhile, the possibility of executing single and double-sided flush panels ensures exceptional aesthetic quality. The design of the door leaf includes divided anti-bimetallic thermal strips used to protect the door against deformation caused by temperature differences.



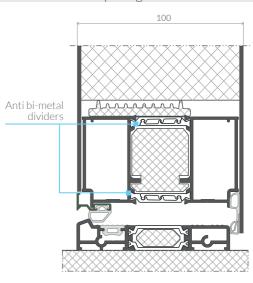
## SYSTEM CHARACTERISTICS

3000 mm	1400 mm	280 kg	100 mm	100 mm	94 mm	97 mm	100 mm
Max. leaf height	Max. leaf width	Max. leaf weight	Frame depth	Max. panel thickness	Depth of leaf with 2- side overlay panel	Depth of leaf with 1- side overlay panel	Leaf depth in glass line version

## Cross-section through a door opening inwards



## Cross-section through the threshold of a door opening inwards



#### SELECTED SYSTEM PARAMETERS

od 0,6 W/m²K	class 4	600 Pa	class C5
Thermal insulation Ud	Air permeability	Water tightness	Wind load resistance

20 Panel door system AS 100P www.aluron.pl 21





age solution.

threshold.

Possibility of connecting with side windows and top light without the need to duplicate

System compatible with a linear water drain-

Possibility of using concealed hinges, electro-

motive lock and Instinct electronic hooks.

Possibility of equipping the door with an elegant LED strip illuminating the door



Access control via fingerprint reader, numeric keypad, remote control and smartphone.



Possibility of opening doors inwards and outwards.



Possibility of equipping the door with a proprietary Aluron recessed handle.



Elegant non-rebated solution.

## Door system with offset rotation axis

## **AS 100 PIVOT**

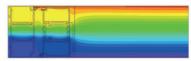
The AS 100 Pivot system is used for the execution of single or double-leaf external doors with a characteristic feature of offset rotation axis, which gives them an impressive and unique appearance.

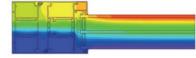
The AS 100 Pivot door leaves are available in three filling variants: with an insulated multiple-glazed glass panel, with a door panel and in the Glass Line version with elegant enamelled glass glued on both sides of the leaf. The structure uses eco-friendly TPE gaskets and anti-bimetallic thermal strips used to protect the door against deformation caused by temperature differences. The extraordinary tightness of the door is ensured by the automatic seal dropping when the door leaf is closed. The so-called dropping threshold provides protection against cold, dust, water and noise.

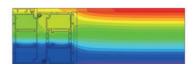


#### SELECTED PARAMETERS AND SYSTEM CHARACTERISTICS

from 0,6 W/m <sup>2</sup> K	class 3	class 3	class 3	3500 mm	1600 mm	500 kg
Thermal insulation Ud	Air	Water	Wind load	Max. leaf	Max. leaf	Max. leaf
	permeability	tightness	resistance	height	width	weight







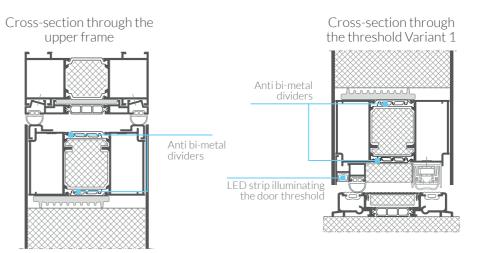
Temperature distribution - decorative panel

Temperature distribution - glass insert

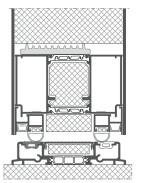
Temperature distribution - glass line

100 mm	94 mm (2-str.) 97 mm (1-str.)	100 mm	100 mm	37-80 mm	145 mm	100mm	100 mm
Frame depth - decorative panel	Leaf depth - decorative panel	Max. panel thickness	Frame depth - glass insert	Glazing range – glass insert	Folding of fra- me and sash – glass insert	Frame depth - glass line	Leaf depth - glass line

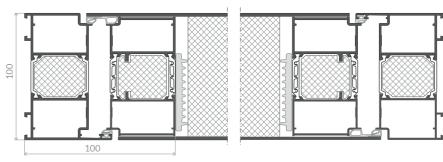
#### Cross-sections for versions with decorative panel







Cross-section through vertical frames



22 Door system with offset rotation axis AS 100 PIVOT www.aluron.pl 23 More technical drawings on p. 91



Three-chamber structure of aluminum profiles.



Four thermal options available.

Option to equip the door with surface, roller or hidden hinges.

A solution compatible with the system-designed mosquito net.

Modern full-depth threshold and aluminium substructure solution.

\*

Possibility of constructing emergency doors: emergency and panic doors.

**12** Twelve door designs available.

Elegant aluminium drain plugs.

System equipped with proprietary ecological TPF seals

Option to integrate the system into modern smart house solutions.

Manufacturing optimisation through the use of the same fasteners and seals.

## Window and door system

## AS 75 DOOR

The solution is used to construct thermally insulated doors that are resistant to deformation caused by large temperature differences between the inside and outside environment thanks to the use of anti bi-metal dividers.

The three-chamber AS 75 system meets all the stringent legal requirements for thermal and acoustic insulation, thanks in part to the use of new-generation thermal insulators.



#### SELECTED SYSTEM PARAMETERS

from 0.93 W/m <sup>2</sup> K*	class RC2, RC3	class 4	class E1200	class C2	41(-1;-5) dB	class 3
Thermal insulation Ud	Burglar resistance	Air permeability	Watertightness	Wind load resistance	Acoustics	Use class

<sup>\*</sup>Full list of thermal variants of AS 75 DOOR available on page 92





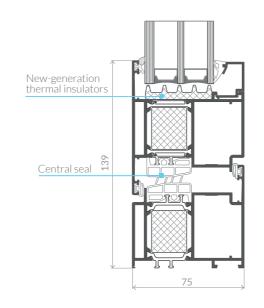
Anthracite seals Temperature distribution

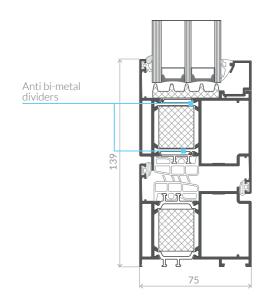
#### SYSTEM CHARACTERISTICS

3000 mm	1400 mm	280 kg	75 mm	17-57 mm	69 mm	65 mm
Max. leaf	Max. leaf	Max. leaf	Door profile	Glazing	Min. visible frame width	Min. visible
height	width	weight	depth	range		leaf width

Section through doors opening outwards

Section through doors opening inwards





24 Window and door system AS 75 DOOR www.aluron.pl 25



Three-chamber structure of aluminum

Four thermal options available.

terns - shape and hole milling.

ted LED lighting.

hidden hinges.

New recessed handle solution with integra-

Option of individual designs and panel pat-

Available types of hinges: surface, roller and



Multipoint locks as standard, availability of electromotor locks.



Doors opening inwards and outwards.



Option of constructing single- and double-leaf doors with side or top transom light.



Panels available in non-transparent with transparent elements and all-glass versions.



Available in the GLASS LINE version with an all-glass panel.

## Panel door system

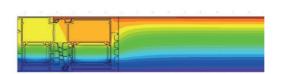
## **AS 75P**

A three-chamber system designed for the prefabrication of thermally insulated doors fitted with a panel glued over the entire leaf surface.

It looks perfect in both modern and classic buildings. Panel doors in the AS 75P system are intended for individual and shopfront applications. Robust workmanship, durability of aluminium and a rich design guarantee many years of durability and aesthetics.

SELECTED SYSTEM PARAMETERS





Temperature distribution



with LED strip

AS75 P panel door with flush side light - Glass Line

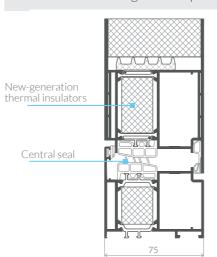


#### SYSTEM CHARACTERISTICS

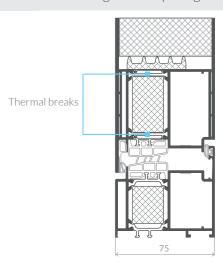
3000 mm	1400 mm	280 kg	75 mm	70 mm, 72 mm	75 mm
Max. leaf height	Max. leaf width	Max. leaf weight	Frame depth	Leaf depth	Max. panel thickness

from 0.82 W/m²K	class 4	class E900 PA	class C3	class 3
Thermal insulation Ud	Air permeability	Watertightness	Wind load resistance	Use class

Section through doors opening inwards



Section through doors opening outwards



26 Panel door system AS 75P www.aluron.pl 27 More technical drawings on p. 91

We provide a wide selection of beautiful door panels. Regardless of your preferred style, we offer the opportunity to obtain the perfect product thanks to various configurations of structure, equipment and panel colors.

#### STANDARD COLLECTION \_



MODEL APD 01 Colour: ACC2 or RAL Applications: Flush stainless Glass: Satinovo, sandblasted according to pattern



MODEL APD 02 Glass: Satinovo



MODEL APD 03 Colour: ACC2 or RAL Applications: Flush stainless Glass: Satinovo



MODEL APD 04 Colour: ACC2 or RAL Applications: Flush stainless Glass: Satinovo



MODEL APD 05 Colour: ACC2 or RAL Glass: Satinovo, sandblasted according to pattern



MODEL APD 06 Colour: ACC2 or RAL Applications: Flush stainless Glass: Satinovo



MODEL APD 07 Applications: Flush stainless Glass: Satinovo



MODEL APD 08 Applications: Milled



MODEL APD 09 Colour: ACC2 or RAL Applications: Flush stainless



MODEL APD 10 Colour: ACC2 or RAL Applications: Milled



MODEL APD 11 Colour: ACC2 or RAL Applications: Milled Glass: Satinovo



MODEL APD 12 Colour: ACC2 or RAL Applications: Milled



Colour: ACC2 or RAL Applications: Flush stainless steel, milled



MODEL APD 14 Colour: ACC2 or RAL Glass: Satinovo



MODEL APD 15 Colour: ACC2 or RAL Applications: Flush stainless Glass: Satinovo



MODEL APD 18 Colour: ACC2 or RAI



MODEL APD 19 Colour: ACC2 or RAI Applications: Flush stainless steel



MODEL APD 20 Colour: ACC2 or RAI Applications: Milled



MODEL APD 21 Colour: ACC2 or RAI Aplikacje:Black glass flush Glass: Satinovo



MODEL APD 22 Colour: ACC2 or RAL Aplikacje: Black glass flush, milled Glass: Satinovo, sandblasted according to pattern



MODEL APD 23 Applications: Black glass



MODEL APD 24 BLACK Colour: ACC2 or RAL Aplikacje: Black glass flush



MODEL APD 25 BLACK Colour: ACC2 or RAL Aplikacje: Black



MODEL APD 26 Colour: ACC2 or RAL Applications: Horizontal milling



MODEL APD 27 Colour: ACC2 or RAL Applications: Milled



MODEL APD 28 Colour: ACC2 or RAL Applications: Classic-style aluminium frames Glass: Satinovo



MODEL APD 29 Colour: ACC2 or RAL Applications: Aluminium retro designs with classic style frames

#### LUXURY COLLECTION



MODEL APD 16 Colour: ACC2 or RAL Applications: Flush stainless steel Glass: Satinovo,



MODEL APD 17 Colour: ACC2 or RAL

MODEL APD 30 Colour: ACC2 or RAL Applications: 3D vertical slats from Aluron's portfolio



MODEL APD 31 Colour: ACC2 or RAL Applications: Black glass / 3D vertical slats from Aluron's portfolio Glass: Satinovo



MODEL APD 32 Colour: ACC2 or RAL Applications: 3D vertical slats from Aluron's portfolio



MODEL APD 33 CORTEN Materiał: spiek kwarcowy Kolor: Corten Applications: 3D stainless



MODEL APD 34 Colour: Everest natural stone



Available in a narrow leaf joint version - the smallest visible width on the market.



Stepped glass version - all-glass system solution.



System accessories for correct leaf suspension with up-and-down adjustment of the leaf



Elegant aluminium drain plugs



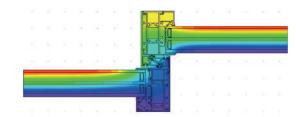
Standard leaf guide and variant with bottom linear guide.



Option of sealing type: brush or seal.



All commercially available automatics can be



Temperature distribution

## Automatic door system **ASAD**

A state-of-the-art solution for the construction of premium automatic sliding doors with the smallest visible aluminium width.

The basis of the system consists of aluminium sections with a thermal divider ensuring excellent thermal insulation of the entire structure. The system meets the requirements of PN EN 16005, which guarantees a secure locking. The doors have been tested in accordance with EN 16361.

#### The AS AD system allows for creation of HS door schemes:

- Self-contained construction
- Wall-mounted
- Connection to the mullion-transom facade.

#### SELECTED SYSTEM PARAMETERS

from 0.8 W/m²K	PPD 2	class E 250Pa	PPD4 class C deflection	+/-600 Pa
Thermal insulation Uw	Air permeability	Water tightness	Wind load resistance	Safety test

#### SYSTEM CHARACTERISTICS

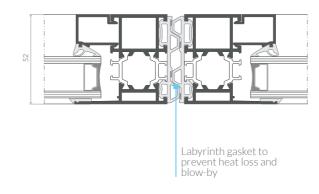
2000 mm	200 kg	2	50 mm	75 and 52 mm
Max. sash width	Max. sash weight	Sealing variants	Depth of sliding sash without thermal insulation	Depth of sliding sash with thermal insulation

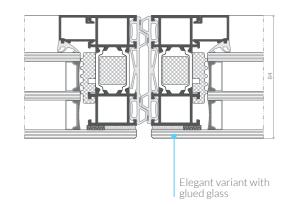
#### Standard variants of AS AD system:

- Displays installation AS 75AD sliding part AS 75AD
- Displays installation AS 75AD sliding part AS 52AD
- Displays installation ACS 50AD sliding part ACS 50AD

## Centre section through automatic door - AS 52AD

Centre section through automatic door - all-glass variant AS 75AD





**30** Automatic door system AS AD www.aluron.pl 31 More technical drawings on p. 93



## Lift and slide door system

## **AS 178HS PRO SLIM**

The solution is used to construct a new generation of large-format, all-glass overhead sliding doors dedicated to residential buildings and other projects where ease of use and movement play an important role.

The ANTI-BI-METAL technology used as standard ensures durability and proper functioning irrespective of significant temperature differences inside and outside the room, while the flat door bolt strikers guarantee aesthetics and user safety. The solution is an alternative to expensive narrow-profile designs.





#### SELECTED SYSTEM PARAMETERS

from 0.7 W/m²K	class 4	class E1200	class C3/B3	class RC2	45(-2;-7) dB
Thermal insulation Uw	Air permeability	Watertightness	Resistance to wind load	Burglar resistance	Acoustics

#### **DESIGN & FUNCTIONALITY**

Option of constructing structures in all fitting patterns.



The solution of a narrow mullion: ultra variant - 25 mm, slim variant - 50 mm.

Option to automate leaf movement.

A solution compatible with the Aluron AS M system mosquito net.

Multi-fold constructions based on a two and three-track frame.

May be equipped with anthracite seals, ABS slats and injected masking elements.

<u>+</u>

The solution of a low, warm threshold.

GLASS

Available in GLASS LINE version with all-glass cladding.



Most profiles cut straight. 10% shorter prefabrication time.



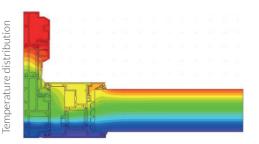
Narrow built-in profiles and crimp joints of the aluminium frames.



Option of integrating the door frame completely into the thermal insulation layer.



Easier installation of the door leaf. Temperature distribution in the frame.



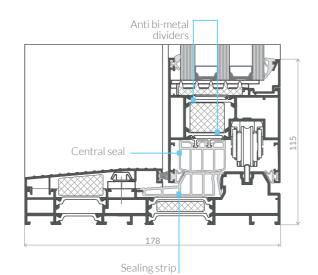
#### SYSTEM CHARACTERISTICS

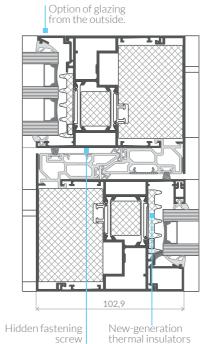
3300 mm	3300 mm	600 kg	37 mm	25 mm / 50 mm	59 mm	78 mm
Max. sash height	Max. sash width	Max. sash weight	Min. visible frame width	Narrow mullion	Max. glazing packet thickness	The depth of sash

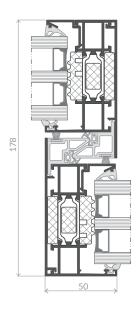
Section through sliding door at floor level

Section through centreline labyrinth

Slim-line variant







32 Lift and slide door system AS 178HS PRO SLIM

More technical drawings on p. 94-95

www.aluron.pl 33





or touch panel.

Option of constructing structures in all fitting

The solution of a narrow mullion - 25 mm.

Possibility of integration with a smart home

system for management via smartphone and/

A wide range of fittings from renowned suppliers: Siegenia, G-U, HAUTAU, MACO.

It is possible to equip the sliding doors in Ultra variant with elegant, multi-colored LED



Standard way of installing glass. The glass is glued to only one edge of the narrow mullion



Possibility to hide the door frame in the insulation layer.



Possibility of making a pocket door sliding structure using standard components of the AS 178HS PRO SLIM system.



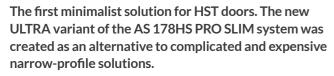
Possibility of constructing all-glass corners at an angle of +/- 90 degrees.



May be equipped with anthracite seals, ABS slats and injected masking elements.

## Lift and slide door system

## AS 178HS PRO SLIM in ULTRA variant



It is used to construct large-size lift-and-slide doors with the narrowest center post available on the market, which is only 25 mm. The ULTRA variant is an ideal solution for customers who expect a unique, minimalist design in an economical version.

The system is distinguished by its versatility and high performance quality thanks to the use of a tight labyrinth strip, modern TPE gaskets and ANTI-BI-METAL technology that prevents door deformation due to significant temperature differences.



### SELECTED SYSTEM PARAMETERS

from 0.7 W/m <sup>2</sup> K	class 3	class 8A	class C3/B3
Thermal insulation Uw	Air permeability	Watertightness	Resistance to wind load

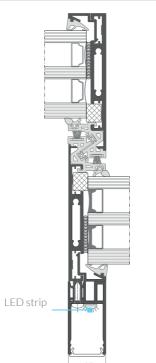


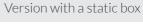


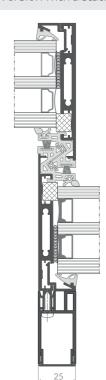
#### SYSTEM CHARACTERISTICS

3300 mm	3300 mm	600 kg	37 mm	25 mm	59 mm	78 mm
Max. sash height	Max. sash width	Max. sash weight	Min. visible frame width	Narrow mullion	Max. glazing packet thickness	The depth of sash

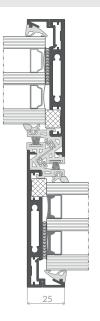








Basic version



34 Lift and slide door system AS 178HS PRO SLIM in ULTRA variant





System is available in the following arrangements: A, C, G, K.

Possibility of using fittings with a latch hidden in the door bolt. No need for additional mill-

Use of a circumferentially mounted acoustic



System compatible with linear drainage solution and the AS M system mosquito net.



Use of a new profile for permanent glazing. Elimination of the need to screw the profile to the frame.



Possibility of executing all-glass internal and external corners.

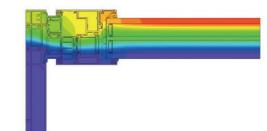


Solution available in ULTRA variant with 25 mm wide central mullion.

## <u>+</u>

Solution with a low, warm threshold.

ing for the hitch pocket.



Temperature distribution

## Lift and slide door system

## **AS 178HS MODERN**

This novelty in the Aluron offer is used for the excution of large-size lift-and-slide doors with thermal insulation that perfectly match the design of modern houses.

Due to a number of facilitating solutions included in the design, the AS 178HS MODERN system ensures quick and easy prefabrication and assembly.

The designers also reduced the number of elements required for the execution of a structure. The introduction of frame profiles cut at an angle of 90°, joined with screws, allows for the frame to be transported in parts and for the structure to be assembled on site.

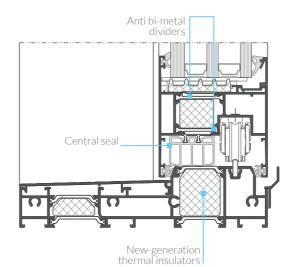


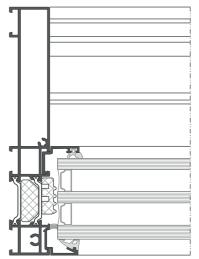
#### SYSTEM CHARACTERISTICS

3300 mm	3300 mm	600 kg	25 mm / 50 mm	59 mm	78 mm
Max. sash height	Max. sash width	Max. sash weight	Narrow mullion	Max. thickness of the glazing unit	The depth of sash

Cross-section through sliding doors at floor level

Side section through sliding doors





#### SELECTED SYSTEM PARAMETERS

od 0,7 W/m²K	class 4	750 Pa	class C3
Thermal insulation Uw	Air permeability	Water tightness	Resistance to wind load

36 Lift and slide door system AS 178HS MODERN www.aluron.pl 37





ing for the hitch pocket.

Solution available in the ULTRA variant with a central post width of 25 mm.

Possibility of using fittings with a latch hidden in the door bolt. No need for additional mill-

Use of a circumferentially mounted acoustic

Frame profiles cut at an angle of 90°.

Available in all popular building schemes.



Two ways of frame and leaf prefabrication through pinning and screwing.



Possibility of glazing of the fixed part from the



Glazing with the use of a glazing strip enhancing window replacement.



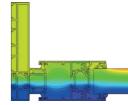
Glazing with the use of a glazing strip enhancing window replacement.



Solution compatible with the AS M system and linear drainage.



Possibility to design single and double-track construction of pocket door/galandage type



Temperature distribution

## Lift and slide door system

## AS 86 SLIDE

This novelty in the Aluron offer is used for the execution of lift-and-slide doors with thermal insulation that perfectly match the design of modern houses.

Due to a number of facilitating solutions included in the design, the AS 178HS MODERN system ensures quick and easy prefabrication and assembly.

The designers also reduced the number of elements required for the execution of a structure. The introduction of frame profiles cut at an angle of 90°, joined with screws, allows for the frame to be transported in parts and for the structure to be assembled on site.

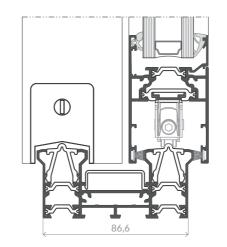


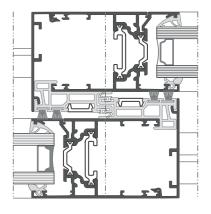
#### SYSTEM CHARACTERISTICS

2700 mm	2500 mm	200 kg	20 mm-36 mm	47 mm	110 mm	174 mm
Max. structure height	Max. sash width	Max. sash width weight	Glazing range	Sash depth	Structural depth of the variant with 2 rails	Structural depth of the variant with 3 rails

Bottom section of the movable field

Cross-section through the post





#### SELECTED SYSTEM PARAMETERS

from 1,8 W/m²K	class 3	class 7A	class C3
Thermal insulation Uw of structure 2000 mm x 2000 mm	Air permeability	Water tightness	Resistance to wind load

38 Lift and slide door system AS 86 SLIDE www.aluron.pl 39 More technical drawings on p. 96



Only 6 mm in the visible frame - maximum glass door light.

Slimline design - 38 mm wide mullions.

Compatible with ACS 50 aluminium door.

Extensive range of external clips to improve

Easy and quick prefabrication thanks to stra-

ight-cut profiles.



Easy and quick prefabrication even under construction conditions.



Electrical wiring can be routed in the profile.



Option to install infills with a wide range of thickness.



Integration with manually or automatically controlled inter-glazing blinds.



Option for use in A-class office buildings.

## Acoustic partition walls system

## **ACS 38**

The ACS 38 system is used to construct stylish and slender aluminium walls, displays and interior partitions without thermal insulation with superior sound insulation.

The solution makes it possible to use a variety of door constructions using the narrowest slim frames and to create rooms with self-supporting canopies, so-called boxes. The system shows high utility and aesthetic properties. It shares the National Technical Assessment with the ACS 50 system.



#### SELECTED SYSTEM PARAMETERS

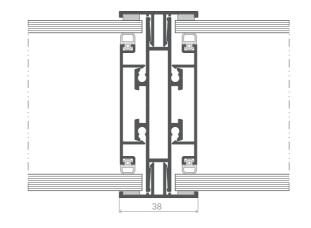
up to 52 dB	up to 46 dB	0,01 m³ (mhdaPa2/3)	class C3/B3	cat. IVb according EAD 210005-00-0505
Sound insulation performance for non-transparent versions	Sound insulation performance for transparent versions	Air tightness	Resistance to wind load	Range of application

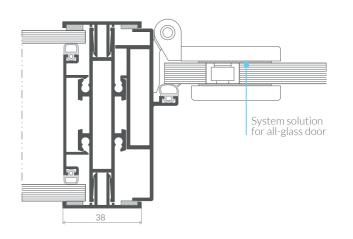
#### SYSTEM CHARACTERISTICS

38 mm mm	38 mm	5300 mm	up to 6,0 m²	up to 2500 mm	5-13 mm	5-84 mm
Min. visible frame width	Profile construction width	Max. wall height	Max. area of glazing unit	Vertical mullion spacing	Glazing range	Thickness range for non-transpar- ent infills

Horizontal section through the wall

Horizontal section with all-glass doors





40 Acoustic partition walls system ACS 38 www.aluron.pl 41 More technical drawings on p. 96





Optional application of an infeed window in the door.

Option of making arched windows and doors including welded constructions.

Option of making escape doors: emergency

A diverse range of mullion variants in the construction of internal partitions and the

freedom to create angled connections.

and anti-panic.



Compatible with intelligent building solutions.



Option of making walls at any angle and large-scale constructions.



Surface and rebate hinges increasing the passage clearance.



Option of making smoke-proof doors.

# Window and door system for interior installation

## **ACS 50**

The solution is designed to make non-thermally insulated partitions such as displays, windows and aluminium and all-glass single or double-leaf doors.

The central glazing combined with the all-glass door solution provides exceptional design aesthetics. The doors are fitted with a central seal to improve their tightness and sound insulation. The system is characterised by its durability and high acoustic properties. It shares the National Technical Assessment with the ACS 38 system.



#### SELECTED SYSTEM PARAMETERS

cat. IVb according to EAD 210005-00-0505	class 3	Sa. S200	0,01 m <sup>3</sup> (mhdaPa2/3)	28 dB	up to 38 dB
Application range	Mechanical strength of the door	Smoke tightness	Resistane to air inflirtation	Acoustic insulation of threshold-free laboratory door	Door sound insulation

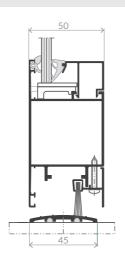
#### SYSTEM CHARACTERISTICS

50 mm	5300 mm	up to 40.5 mm	59 mm	up to 31.5 mm
Structural depth of frame profiles	Max. wall height	Glazing range	Structural depth of leaf profiles	Glazing bar height

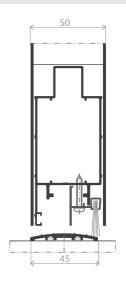
#### Based on the ACS 50 system, can be constructed:

- partitions with or without mullions
- all-glass sash
- sliding door
- panel door

#### Section through fixed frame



#### Section through opening window



42 Window and door system for interior installation ACS 50 www.aluron.pl 43



Available i

Available in all construction patterns.

System compatible with ACS 50.

gned AS M mosquito net.

Option of central infill positioning in the leaf.

Solution compatible with the system-desi-

Option of single-point lock on the inside.

Two types of construction seal with leaf:

standard version with brush and version

with special two-component slide seal.



Leaf height adjustable by +/- 2.5 mm using special bogies.



Two variants of door frame drainage.



Several variants available for embedding the threshold in the floor.



No milling required for bogies.



A variant of a recessed handle from the outside



Low threshold for all types of door frames ensuring comfort and safety.

## Sliding door system

## **ACS 50 COLD SLIDE**

The system is used to construct sliding doors used as partitions in internal or external installations that do not require thermal insulation.

The solution is ideal for structures such as winter gardens and verandas. The system ensures optimisation of the materials used thanks to the application of the same sections and accessories that are used in the case of the classic ACS 50 solution. The system provides a number of conveniences that reduce the time of prefabrication and assembly. The process of glazing the leaves can be carried out on site after the structure has been fitted into the building opening.



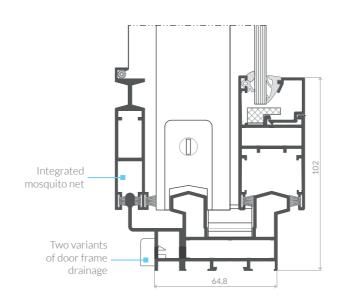
class 3	class A3	class 4A
Air permeability	Resistance to wind load	Water tightness

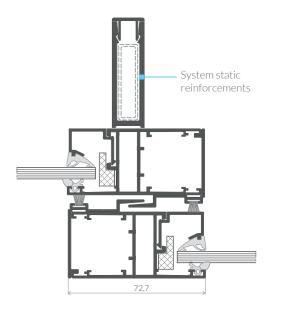
#### SYSTEM CHARACTERISTICS

2500 mm	2000 mm	200 kg	4-18 mm	35 mm	12.5 mm	50 mm	94 mm
Max. construc- tion height	Max. sash width	Max. sash weight	Glazing range	Sash depth	Min. visible frame width	Construction depth for 2-way version	Construction depth for 3-way version

Section through a sliding door at floor level

Section through the labyrinth with reinforcement





44 Sliding door system ACS 50 COLD SLIDE www.aluron.pl 45



Availability of bottom frame profiles with 3, 4,

Possibility of executing structures with 3, 4, 5

Possibility of opening leaves in one direction

(the leaves hide behind each other) or in two

Special design of the rail securing the leaf

Tempered glass with increased impact resistance.

and even 6 sliding sashes.

against falling out.

5 or 6 rails.



Simple and convenient locking of the door leaves



Easy and fast assembly and prefabrication.



No need to execute complex works on drainage of the bottom rail.



Increased energy efficiency of buildings through reduced expenditure on heating and

# All-glass sliding wall system

## **ACS OptiGlass**

The ACS OptiGlass sliding wall system is a solution for the execution of all-glass terrace structures and pergolas, providing users with comfort and protection against adverse weather conditions. High-precision sliding walls, made of the highest quality tempered glass, fit perfectly with any type of pergola, giving the outdoor spaces an elegant and modern appearance and ensuring full integration with the environment.

The number of system components is limited to aminimum which facilitates and accelerates the assembly of the designed structures. Due to the possibility of adjusting glass unit dimensions and the number of sliding panels to each structure, the ACS OptiGlass system is also ideal for other unheated structures, such as balcony and terrace walls, and as a space-separating element space in winter gardens and orangeries.

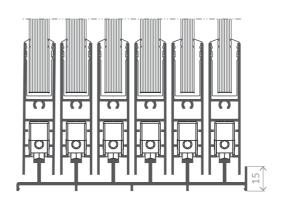


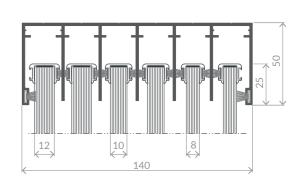
#### SYSTEM CHARACTERISTICS

2800 mm	1200 mm	8 mm, 10 mm, 12 mm	120 kg	Sliding
Max. sash height	Max. sash width	Tempered glass thickness	Max. glass weight	Door Type

Cross-section through sliding walls at floor level

Top view cross-section of sliding walls





46 All-glass sliding wall system ACS OptiGlass www.aluron.pl 47



Possibility of creating structures attached to

System compatible with ACS OptiGlass glass

Fee selection of RAL colors, wood-like decors

from the Aluron Color Collection 2.

Concealed and visible gutter version.

Possibility of creating freestanding struc-

the building.

sliding walls.



Resistance to adverse effects of weather conditions and UV radiation.



Lightweight structure with increased resistance to mechanical damage.



Roof rafter in two static variants.





Fast and easy assembly.



Possibility of installing LED lighting in rafters.

## Glass pergola system

## **ACS GLASS GARDEN**

ACS GG is made of extruded aluminium. It is used for the execution of non-thermally insulated, roofed structures, either fullydetached or attached to a building, with the possibility of installation of a special console providing insulation of the building wall.

It is characterized by exceptional resistance to weather conditions and longevity. Innovative technology of joining profiles with the use of special connectors increases the stability of the structure and eliminates gaps visible at the joints, thereby ensuring exceptional aesthetics.

Strength tests confirm that the ACS GG pergola is resistant to loads such as strong winds or a thick layer of snow. The solution is suitable for use all year round, regardless of weather conditions.

The system can be expanded with side curtains, e.g. glass sliding panels of the ACS OptiGlass system, which further increase the comfort of use. The canopies of the ACS Glass Garden system are adapted to the use of fillings made of chamber polycarbonate, as well as single-glazed glass units and single-chamber glass units.



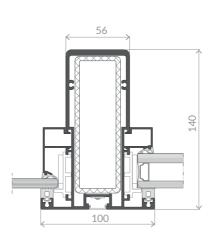


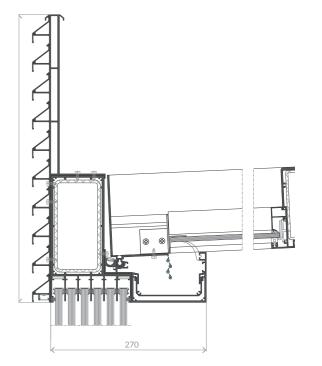
#### SYSTEM CHARACTERISTICS

7000 mm	5000 mm	8 ÷ 30 mm	2,5°-30°
Max. spacing poles	Max. roof depth	Glazing range	Roof angle adjustment range

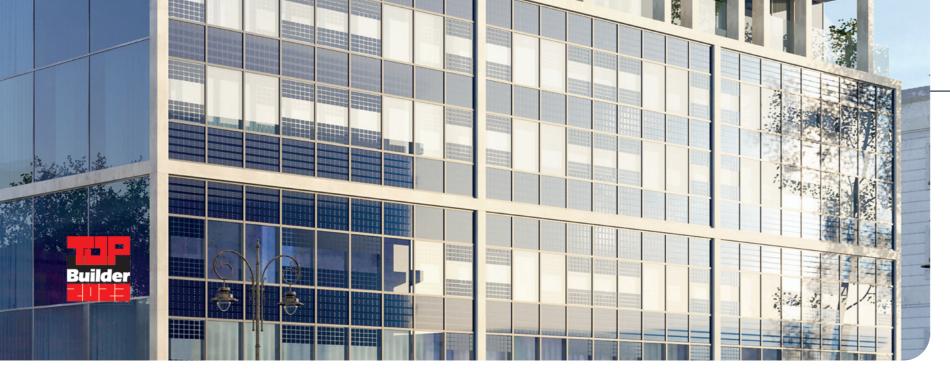
Cross-section through the rafter

#### Cross-section through the gutter





48 Glass pergola system ACS Glass Garden www.aluron.pl 49 More technical drawings on p. 97





conditioning.

of the facade.

Free arrangement of the photovoltaic cells: in a regular pattern or in different patterns.

Electricity production, reducing costs for air

Access to photovoltaic panels from the inside

Profiles and gaskets flushed from the inside

Glazing from the outside and inside.

of the structure in case of failure.



Ultra-thin chemically toughened glass just 0.85 mm thick encapsulating the cells.



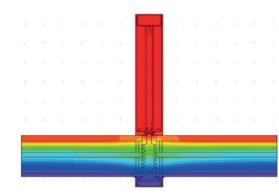
Full optimisation of the profiles used thanks to mullion-to-mullion construction.



Installation cabling located inside the struc-



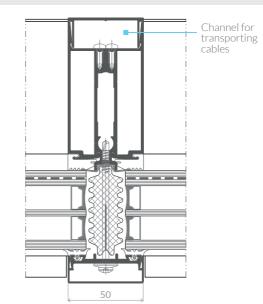
Proprietary Energy Management System to monitor energy yields and control technical condition of infill panels.



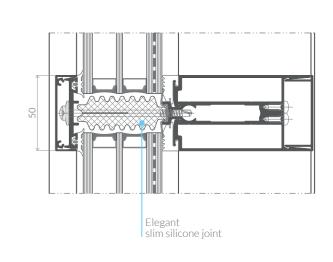
#### Temperature distribution

from 0.5 W/m²K	180 W/m²	400 kg	67 mm	50 mm
Thermal insulation of active infill	Max. power rating of 1m² of infill	Max. infill weight	Max. infill thickness	Width of mullion and transom sections

#### Section through the mullion



#### Section through transom



#### SELECTED SYSTEM PARAMETERS

Zero-energy facade

the energy crisis.

**AF 50KW QUANTUM** 

An innovative solution that was developed in response to investors' expectations during

It is designed to make thermally insulated aluminium building facades using active photovoltaic infill. The appropriate design of the partition and the use of all system components make it possible to achieve a zero-energy structure, giving the possibility of fully

balancing the gains and energy losses of the facade.

• silicon cells: bifacial, mono-Si, poli -Si, BackContract,

quantum dots (QDOT) ensuring transparency of infills.

Examples of AF 50KW QUANTUM infills:

• photoelectrochemical cells (DSSC),

class AE 2400 Pa	class RE 2400 Pa	class RE 2400 Pa	class 2400 Pa	+/- 3600 Pa	class E5/I5	class 5 (950 mm/466 kJ)
Air permeability wall with and without window	Water tightness wall without window	Water tightness wall with window	Wind load resistance	Safety test	Impact resistance 2-chamber double-glazed window	Exposure category A

#### SYSTEM CHARACTERISTICS

from 0.5 W/m <sup>2</sup> K	180 W/m²	400 kg	67 mm	50 mm
Thermal insulation of active infill	Max. power rating of 1m² of infill	Max. infill weight	Max. infill thickness	Width of mullion and transom sections

More technical drawings on p. 98









**50** Zero-energy facade AF 50KW QUANTUM www.aluron.pl 51





Wide range of decorative strips.

a sealed transition to the roof.

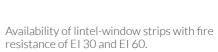
of the facade.

Wide range of corner connections including

System solutions for facade assembly: ca-

nopies, roller shutters, sliding doors and sun

Profiles and gaskets flushed from the inside



3 drainage levels available.



Option to equip the facade with a gutter mounted on a single transom (set of accessories).



Straight-cut transoms to facilitate prefabrication, also for angled connections.



Temperature distribution

Optimization of material use thanks to single-profile pole-to-pole technology.

## Single-profile facade

## **AF 50**

The AF 50 facade system is used for the construction of lightweight curtain walls made using single-profile mullion-mullion technology providing manufacturers with excellent material optimisation.

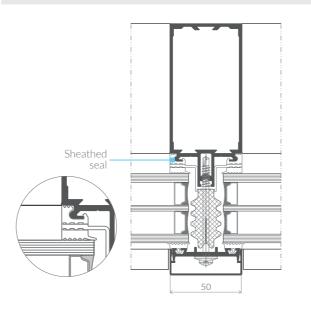
The solution offers a wide range of design options and is ideal for use in modern buildings. The system uses solutions that guarantee high insulation and airtightness parameters.



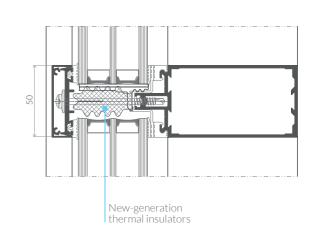
#### SYSTEM CHARACTERISTICS

RC2, RC3	from 0.6 W/m <sup>2</sup> K	50 mm	up to 540 kg	up to 64 mm	0-320 mm
Burglary resistance	Thermal insulation of U facade	Width of mullion and transom sections	Max. infill weight	Glazing range	Range of depth of mullion and transom sections

#### Section through the mullion



#### Section through the transom



#### SELECTED SYSTEM PARAMETERS

class AE 1500 Pa	class RE 2400 Pa	2400 Pa	+/- 3600 Pa	class E5/I5	42 (-2;-8) dB
Air permeability	Water tightness	Wind load resistance	Safety test	Impact resistance 2-chamber double-glazed window	Acoustics

52 Single-profile facade AF 50 www.aluron.pl 53





System solutions for mounting on the facade: canopies, roller shutters, sliding doors and sun visors.

Internally flush mullion and transom as

Aesthetic slim silicone joint.



Excellent optimization of material usage due to single-profile pole-to-pole technology.



Option of vertical or horizontal line.

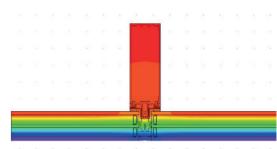


Lintel-window strips available with fire resistance of EI 30 and EI 60.



standard.

inside of the facade.



Temperature distribution

## Silicone variant of a single-profile facade

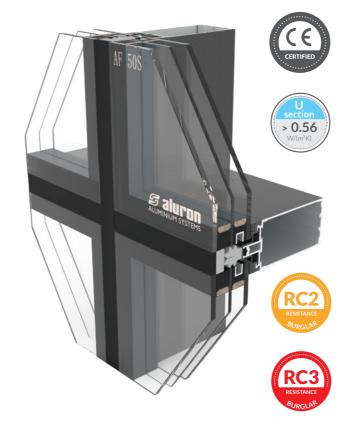
## **AF 50S**

#### The AF 50S facade system is a highly aesthetic and lightweight structure.

Its modern design is ideal for office buildings, emphasising their aesthetics and class. The system allows the use of multi-pane packages with a slim silicone joint. The solutions used achieve high thermal performance adapted to changing weather conditions.

#### The AF 50S system allows three ways of fixing the glass:

- point attachment by molded-in fasteners,
- attachment by the glued-in frame,
- attachment by the inner pane.



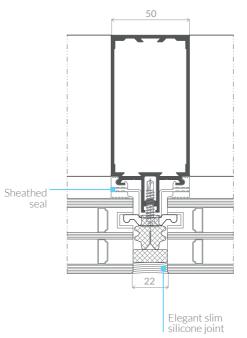
#### SELECTED SYSTEM PARAMETERS

from 0.56 W/m <sup>2</sup> K	class AE 1650 Pa	class RE 2500 Pa	2400 Pa	+/- 3600 Pa	class I5/E5	42 (-2;-8) dB
Thermal insulation U facade	Air permeability	Watertightness	Wind load resistance	Safety test	Impact resistance	Acoustics

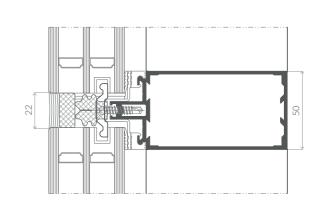
#### SYSTEM CHARACTERISTICS

RC2, RC3	50 mm	up to 540 kg	up to 62 mm	0-320 mm	22 mm
Burglary resistance	Width of mullion and transom sections	Max. infill weight	Glazing range	Range of depth of mullion and transom sections	Glazing joint

#### Section through the mullion



Section through transom



54 Silicone variant of a single-profile facade AF 50S www.aluron.pl 55 More technical drawings on p. 98





Hidden profiles - stepped double glazing available as standard.

value of the solution.

dedicated electric actuators.

Option of manual opening.

Structural glazing increasing the aesthetic

Option of automatic opening with the use of



Compatible with AF 50 systems, AF 50S and ATF 50.



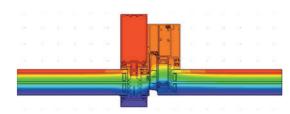
Wide range of tilt and parallel-retracting fittings from reputable suppliers.



Option of effective ventilation of rooms while maintaining the aesthetics of the entire



facade.



Temperature distribution

## Tilt and parallel-retracting windows

## **AF 50W**

The system is designed for the construction of windows opening outward in two variants: tilt and parallel-retracting.

This type of windows can only be installed in facades and is compatible with the AF 50, AF 50S and ATF 50 systems. The solution provides for the installation of glass using structural glazing. There is no need to apply any profiles on the outside. The product provides the beautiful visual effect of a fixed window from the outside. This is the first solution of this type designed for the needs of two-chamber infills.



#### SELECTED SYSTEM PARAMETERS

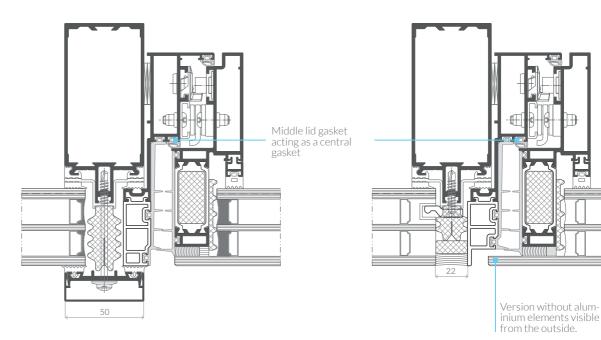
from 0.79 W/m <sup>2</sup> K	class E 2400 Pa	class 4	class C5/B5	+/- 3000 Pa	class 4	class 4
Thermal insulation Uw	Water tightness	Air permeability	Wind load resistance	Safety load	Load resistance in the plane of the sash	Static torsion resistance

#### SYSTEM CHARACTERISTICS

3044 mm	2000 mm	180 kg	200 kg	48-65 mm	45 mm
Max. structure height	Max. structure width	Max. weight of hinged window	Max. weight of parallel-retracting window	Glazing range	Thermal separator width

Section through mullion with window

Section through transom with window



56 Tilt and parallel-retracting windows AF 50W www.aluron.pl 57





Aesthetically pleasing roof window with the option of using it as a certified smoke ventila-

Compatible with AF 50, AF 50S and ATF 50

Three-chamber system construction with the option of implementing insulating inserts for

Double-glazed as standard.

excellent thermal insulation.

facade systems.



Proprietary overlay glazing system ensuring superior tightness and easy and efficient

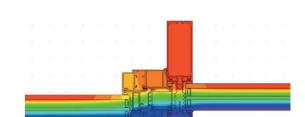


Manual opening or using dedicated electric actuators.



Temperature distribution

Efficient drainage and ventilation system for condensation drainage.



## Windows, skylights and smoke flaps

## **AF 50R**

AF 50R is a modern system for the construction of windows installed in a roof slope made on the basis of AF 50 or AF 50S.

In addition to its lighting function, the solution ensures adequate ventilation and the possibility of ventilating the rooms. An excellent level of tightness is ensured by the proprietary solution of the overlay glazing system and the use of a central seal. AF 50R roof windows based on facade systems meet the highest utility and thermal requirements.



#### SELECTED SYSTEM PARAMETERS

from 0.99 W/m <sup>2</sup> K	class E 2400 Pa	class 4	class C5/B5	+/- 3000 Pa	class 4	class 4
Thermal insulation Uw	Water tightness	Air permeability	Wind load resistance	Safety load	Load resistance in the plane of the sash	Static torsion resistance

#### SYSTEM CHARACTERISTICS

2500 mm	2500 mm	200 kg	28-58 mm	2-90∘
Max. construction height	Max. construction width	Max. weight	Glazing range	Tilt angle

Section through a skylight window in a facade

Section through a skylight window in a silicone facade



58 Windows, skylights and smoke flaps AF 50R www.aluron.pl 59 More technical drawings on p. 99





Improving the aesthetics of the facade while maintaining the ventilation function of the



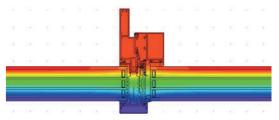
Stylish hidden sash effect when viewed from the outside.



Option of single or double glazing.



Special central seal design for high structural integrity and efficient drainage.



Temperature distribution

Extensive range of various shaped cover strips.

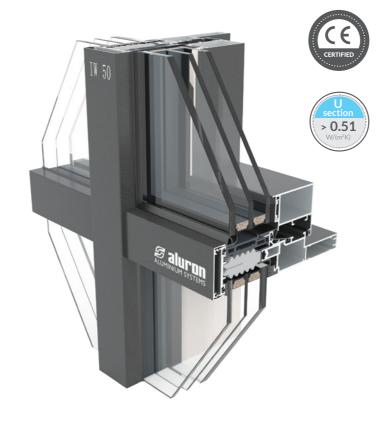


Diversity of design variants depending on the type of facade used: IW AF 50, IW AF 50S, IW AF 50KW, IW ATF 50 and IW ATF 50S.

## Window opening inwards integrated in the facade **IW 50**

The IW 50 system is intended for constructing windows integrated with an aluminium facade which open inwards using standard hidden hinges.

Windows constructed on the basis of the system can be turn-and-tilt, turn and tilt. When viewed from the outside, the window sash does not differ from the neighbouring fixed panels, so it does not interfere with the view typical of a facade system.



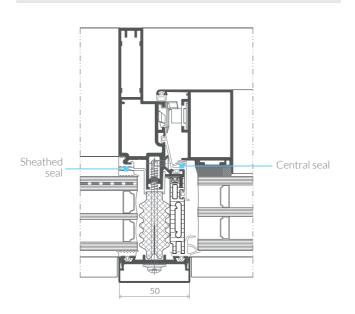
#### SELECTED SYSTEM PARAMETERS

from 0.51 W/m²K	class RE 2400 Pa	class 4	class C5/B5	+/- 3600 Pa
Thermal insulation Uw	Water tightness	Air permeability	Wind load resistance	Safety test

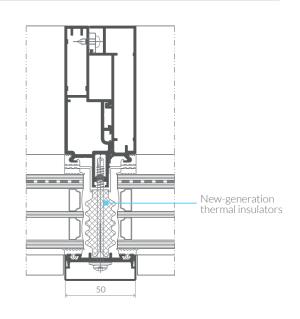
#### SYSTEM CHARACTERISTICS

2400 mm	1500 mm	150 kg	28-64 mm	50 mm	80 mm	70-210 mm
Max. construction height	Max. construction width	Max. construction weight	Glazing range	Width of mullion and transom sections	Width of sections including sash from inside	Range of depth of mullion and transom sections

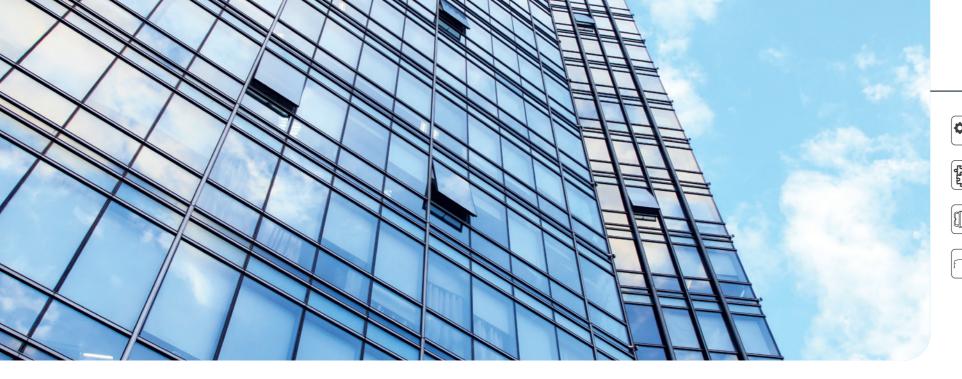
#### Section through mullion with window



#### Section through mullion - fixed part



60 Window opening inwards integrated in the facade IW 50 www.aluron.pl 61 More technical drawings on p. 99





Excellent material optimisation thanks to single-profile mullion-to mullion technology.

Fully compatible with other Aluron systems.

Two sealing variants: standard block seals and with sheathing seal for superior tightness.

Wide selection of decorative clips.



Option of full prefabrication in the workshop without cutting the seals on site.



Easy installation of infills of different thick-

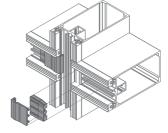


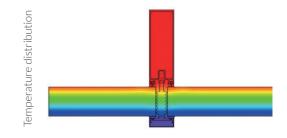
Profiles and gaskets flushed from the inside of the facade.



Designer composite panel door solution (ATF 35 subsystem).

Simple sealing of the mullion-to-transom joint with a clipped-in element





## facade with mullion to mullion technology

Thermally advanced single-profile

**ATF 50** 

The ATF 50 facade system is dedicated to modern buildings with the highest thermal insulation requirements.

Based on the solution, it is possible to construct flat walls as well as skylights. The system incorporates solutions that guarantee high watertightness parameters and resistance to air permeability. Special construction of the infill fixing cup to guarantee full isothermal flattening and excellent thermal insulation performance.







#### SELECTED SYSTEM PARAMETERS

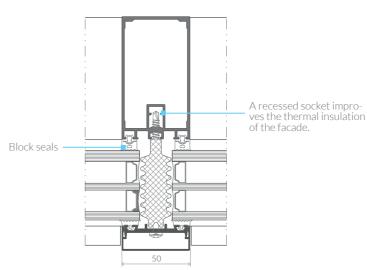
from 0.5 W/m²K	class RE 2400 Pa	class AE 2400 Pa	2400 Pa	+/- 3600 Pa	RC2, RC3
Thermal insulation	Water tightness	Air permeability	Wind load resistance	Safety load	Burglary resistance

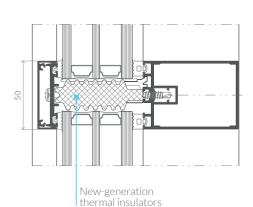
#### SYSTEM CHARACTERISTICS

50 mm	30 mm ÷ 330 mm	30 mm ÷ 230 mm	up to 64 mm	up to 700 kg
Width of mullion and transom sections	Range of depth of mullion sections	Range of depth transom sections	Glazing range	Max. filling weight

Section through the mullion

Section through the transom









Excellent material optimisation thanks to single-profile mullion-to mullion technology.

Possibility of designing structures of various

Internally flush pole with bolt and gaskets

Glazing without use of external slats.

shapes (turns, bends, polygonal lines).

available as a standard.

Aesthetic slim silicone joint.



Aesthetic, thin silicone grout.



Possible execution of a vertical or horizontal



Fast and easy assembly.



Possibility of using tilting or parallel-retractable windows that open independently.



Fully compatible with other Aluron systems.

## Silicone variant of the thermally advanced single-profile facade **ATF 50S**

The system is used for the execution of light curtain walls, roofs and skylights. The load-bearing structure is based on asingle-profile pole-to-pole technology, which enables excellent material optimization. Innovative structure of the sections with an inwardly retracted filling mounting cup provides excellent thermal parameters.

Thanks to the use of a special system for fixing glass units to profiles, we gain a surface that is flat and aesthetic from the outside. The gaps between the glass fields of the facade are filled with a special silicone binder ensuring high tightness. The system allows for the creation of almost any shapes and bends of the vertical curtain wall. Due to block seal solutions and the possibility of installing profiles and gaskets flush on the inside, the ATF 50S system is extremely flexible and aesthetic. A jacketed gasket is used in roof structures.







#### SELECTED SYSTEM PARAMETERS

from 0,5 W/m <sup>2</sup> K	class RE 2400 Pa	class AE 2400 Pa	2400 Pa	+/- 3600 Pa	RC2, RC3
Thermal insulation U of the cross-section	Water tightness	Air permeability	Wind load resistance	Safety load	Burglary resistance

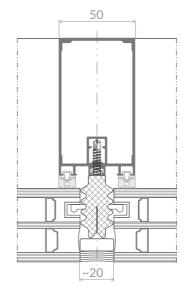
# Temperature distribution

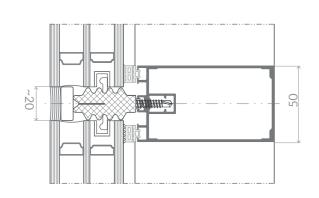
#### SYSTEM CHARACTERISTICS

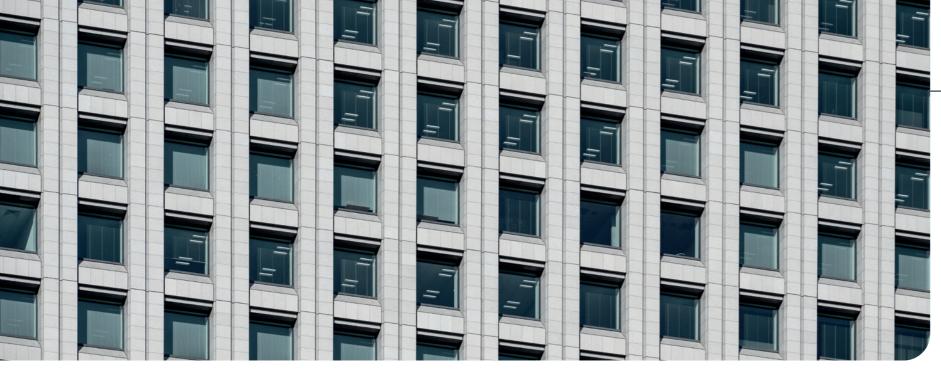
50 mm	30 mm ÷ 330 mm	30 mm ÷ 230 mm	up to 64 mm	up to 700 kg
Width of mullion and transom sections	Range of depth of mullion sections	Range of depth transom sections	Glazing range	Max. filling weight

Section through mullion

Section through transom







Innovative 5-chamber technology to improve structural rigidity.

Glazing with double glazing units with an inner pane of Contraflam 30.

ROTO AL fittings of the tilt-and-turn type.



Lower profiles of sashes and low assemblies - more light.



Elegant aluminium drain plugs in the color of the joinery.



Possibility of crimping and doweling.



Production optimization - using the same gaskets and fasteners.

The window sash flushed with the frame from the outside.



The solution is compatible with other Aluron systems.

## Thermally insulated fire window system

## **AS 110EI**

The five-chamber AS 110EI system is used for constructing fireproof windows with the highest thermal insulation on the market.

Based on the Classification Report issued by the Building Research Institute, it is possible to construct single-leaf external windows in the fire resistance class EI 30 in individual development assembled in rigid structures. The construction of the system provides excellent static and acoustic insulation of windows.



#### SELECTED SYSTEM PARAMETERS

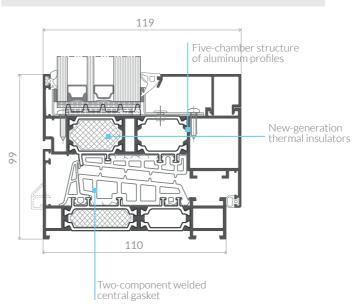
from 0.8 W/m²K	class E1950	class 4	class C5/B5	class 4	EI 30
Thermal insulation Uw	Water tightness	Air permeability	Wind load resistance	Mechanical strength	Fire resistance

Temperature distribution

#### SYSTEM CHARACTERISTICS

2322 mm	1494 mm	110 mm	119 mm	54 mm	32 mm
Max. sash	Max. sash	Frame	Depth of window sashes	Min. visible	Min. visible
height	width	depth		frame width	sash width

#### Section through opening window



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#### PERLITERM INSERTS

#### **EASY TO INSTALL**



Patented fire protection inserts shaped to fit the profile chambers, made from volcanic

Lighter, warmer and dust-free compared

Mechanically strong (crack and fracture

resistant) for improved thermal insulation.

The first fireproof inserts on the market in

a plastic envelope ensuring cleanliness and

convenience of storage and use.

to commonly used gypsum.



Single-sided glazing as in typical door systems, clip assembly on the inside.



Adjustable system angle for glass fixing facilitating glazing of different glass packages.



Selectable glazing position in relation to the leaf axis - so-called central glazing.



Proprietary expanding seals clipped into thermal breaks eliminating the problem of their unsticking.

## Thermally insulated fire door system

## **AS 75EI**

The three-chamber system AS 75 EI is used to construct thermally insulated internal and external doors with fire resistance class EI 30 and EI 60 with the possibility of installation in showcase structures, AS 75EI walls and plasterboard walls.

The system ensures full optimisation of the profiles applied by using the same sections and accessories as the classic AS 75 window and door system. The system uses multi-variant glazing from Vetrotech Saint-Gobain and door fittings of well-known brands: Wala, Master, Dr Hahn, Wilka, MC Aluhard, Eco, Schulte, Geze.

of the system can be equipped with sidelights and fanlights. The system also allows the use of a warm opaque panel in doors and the construction of fire-resistant walls.

SELECTED SYSTEM PARAMETERS

class EI 30, EI 60

Fire resistance

class Sa, S200

Smoke-proof



class C2

Resistance

to wind load

class 2

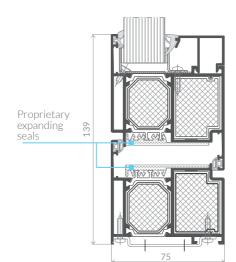
Air permeability

# Fire-resistant technical doors and windows created on the basis

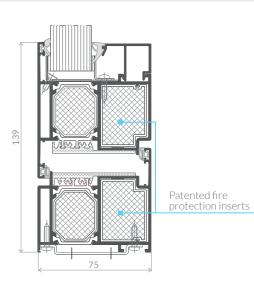
class 7A

Watertightness

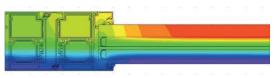
Section through door opening outward - El 60 version



More technical drawings on p..100



## warp of the insert protective filling based on perlite ATENTED



Temperature distribution

#### SYSTEM CHARACTERISTICS

EI 30 - 2800 mm EI 60 - 2500 mm	1320 mm	220 kg	EI 30 - 4800 mm EI 60 - 4000 mm	15 mm, 16 mm	27 mm	34-56 mm
Max. leaf height	Max. leaf width	Max. leaf weight	Max. height of fire proof walls	Thickness of single glazingin EI 30 constructions	Thickness of single glazing for El 60 construction	Thickness range of glazing packets in EI 30 and EI 60 construction

Section through door opening inward - El 60 version

68 Thermally insulated fire door system AS 75EI

from 1.2 W/m<sup>2</sup>K

Thermal

insulation Ud





resistance.

of the facade.

Sheathing seal wrapping around the entire socket for superior tightness.

Lintel-window strips available with EI 60 fire

The solution is compatible with other Aluron

Profiles and gaskets flushed from the inside



Straight-cut transoms for easier prefabrication, also with angled connections.

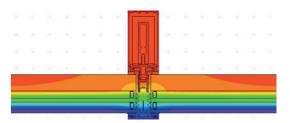


Three drainage levels available.



Easy and quick prefabrication.





Temperature distribution

## Fire protection facade

## **AF 50EI**

The AF 50EI facade system is used to construct lightweight curtain walls. The constructions are made on the basis of single-profile mullion-mullion technology, which provides the manufacturers with excellent material optimisation.

Based on the solution, it is possible to construct flat walls of fire resistance class EI60. Within the system, solutions have been applied that guarantee high water-tightness parameters and resistance to air permeability.



#### SELECTED SYSTEM PARAMETERS

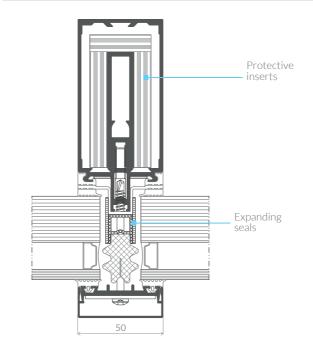
from 0.7 W/m²K	EI 60	class RE 2400 Pa	2400 Pa	±3600 Pa	AE 1500 Pa
Thermal insulation	Fire resistance	Waterproofing	Wind load resistance	Safety test	Air permeability

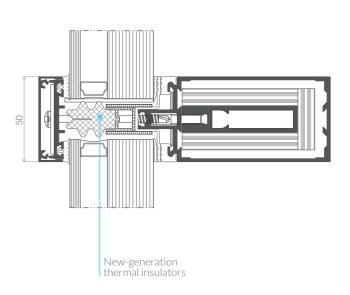
#### SYSTEM CHARACTERISTICS

class ES/I5	50 mm	90-320 mm	up to 64mm	up to 380 kg
Impact resistance	Width of mullion and transom sections	Range of depth of mullion and transom sections	Glazing range	Load bearing capacity of glass

Section through the mullion

Section through the transom





**70** Fire protection facade AF 50EI www.aluron.pl 71 More technical drawings on p.101





Three drainage levels available.

glazing packet difference.

of the facade.

System solution for facade mounting of AS 75EI.

Preservation of sheathing seal continuity with

Profiles and gaskets flushed from the inside

Innovative fireproof inserts in a metal warp to increase the rigidity of the structure and facilitate installation.



Excellent thermal parameters.



Lintel-window strips available with EI 60 fire resistance



Two sealing variants: block seal or sheathing



Straight-cut transoms for easier prefabrication, also with angled connections

# Thermally advanced fire protection facade

### ATF 50EI

The ATF 50EI facade system is dedicated to modern buildings with increased requirements for thermal insulation.

On the basis of the solution, it is possible to construct flat walls of fire resistance class EI 30, EI 60 as well as skylights of fire resistance class REI20 and REI45. The system incorporates solutions that guarantee high watertightness parameters and resistance to air permeability.

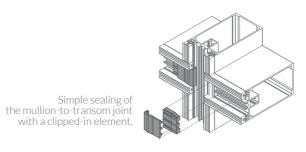


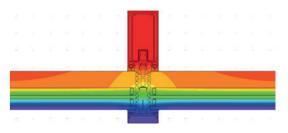




#### SELECTED SYSTEM PARAMETERS

from 0.6 W/m²K	RE 2400 Pa	2400 Pa	±3600 Pa	EI 60, EI 30	REI20, REI45
Thermal insulation	Waterproofing	Wind load resistance	Safety tests	Fire resistance	Fire resistance of skylights based on ATF 50EI

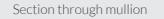


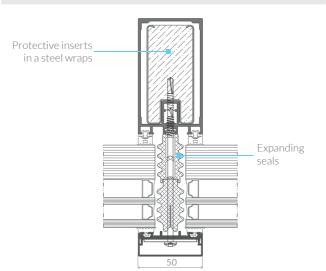


Temperature distribution

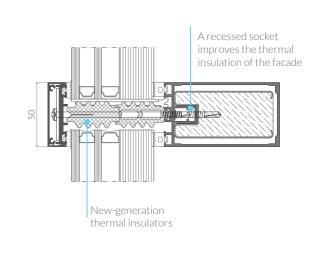
#### SYSTEM CHARACTERISTICS

50 mm	up to 170 mm	AE 2400 Pa	class E5/I5	up to 64mm	600 kg
Width of mullion and transom sections	Range of depth of mullion and transom sections	Air permeability	Impact resistance	Glazing range	Load bearing capacity of glass





#### Section through transom



72 Thermally advanced fire protection facade ATF 50EI www.aluron.pl 73





ing of rooms.

Effective shading of rooms, increasing users' work comfort.

Reducing the costs incurred for air-condition-

Maximum span of slat mounting brackets -

Easy installation, among other things, thanks to the use of a single mounting bracket (comb).

Two types of slats: Z29 (active surface min. 51%) and Z39 (active surface min. 64%).



Freedom to choose RAL colours and wood decors from the Aluron Color Collection2



Possibility of additional mechanical fastening of slats.



A solution compatible with all systems from



Placing on the market under system 4 (by the manufacturer without the involvement of a third party)

### Z-type facade slats

### **ACS SUN PRO**

The "Z" type façade slats are a universal solution that combines functionality with aesthetics. Its main task is to protect the building from excessive sunlight. The product is mainly dedicated to object projects as a finishing element of facades and elevations of buildings, filling in windows, grilles in doors or as an interesting architectural detail emphasizing the individual character of the building. The degree of shading depends on the size of the Z slat.

The ACS SUN PRO system also works perfectly in the construction of ventilation blinds. It is used to mask the inlet and outlet openings of ventilation systems. The solution provides high protection against rain and snow and a small loss of active surface. Ventilation grilles can be equipped with mosquito nets to prevent insects from entering the ventilation ducts.



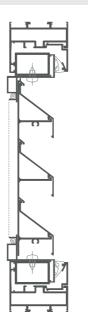
#### SELECTED SYSTEM PARAMETERS

6 class (acc. PN-EN 13659)	1700 mm	47 mm	29 mm, 39 mm	64%	51%	permanent
Wind load resistance	Max. span of slat mounting brackets	Slat height	Slat width	Min. active surface area of Z39 slat	Min. active surface area of Z29 slat	Mounting angle

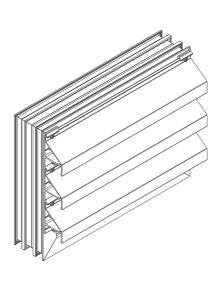




Cross-section of the ventilation grille in the ACS 50



ACS SUN PRO external slat model



74 Z-type facade slats - ACS SUN PRO www.aluron.pl 75





connectors.

Effective drainage of water at the floor level.

Possibility of executing linear drainage at any angle thanks to the use of system angle

Compatibility with the following Aluron systems: AS 178HS, AS 100, AS 100 PIVOT, AS 75, AS 86 SLIDE.



Three types of closing profile: alu perforated profile, alu drainage grid.



Water drainage from the gutter in two variants: from the bottom and from the side..



Prefabricated elements reducing assembly

### Linear drainage

### **ASLD**

The linear drainage system was created in order to efficiently drain water from window and door structures. The gutter, installed at the floor level, effectively discharges both condensates generated inside the structure and those coming from the outside.

The solution offers three types of gutters: one made of a perforated profile and two based on rectangular sections, which allows for adaptation to different aesthetic and technical requirements.

The system provides two ways of draining water – from the bottom, from the side using a dewatering element, the so-called hopper head (its operation is modelled on the runoff of water in a kitchen sink).

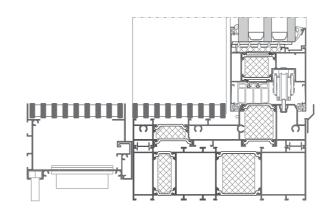


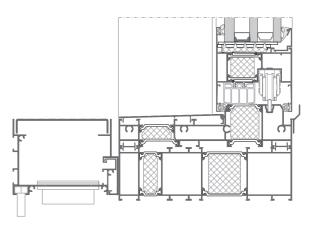




Cross-section through sliding doors at floor level

Cross-section through sliding doors at floor level





76 Linear drainage AS LD www.aluron.pl 77



### Integrated glass balustrade system

### **AS VGB**

AS VGB is a modern glass balustrade system for securing high opening windows known in this combination as French balconies.

It is characterised by its versatility and very high performance properties. The balustrades of the AS VGB system are compatible with aluminium windows and facade systems. They provide security and are an interesting detail that enhances the aesthetic value of designed buildings.



500 mm	500 mm	2600 mm	1300 mm	10.8 mm (VSG 55.2)	20.8 mm (VSG 1010.2)
Min. glass width	Min. glass high	Max. glass width	Max. glass high	Allowed min. infill thickness	Allowed max. infill thickness

#### **DESIGN & FUNCTIONALITY**



Compatible with all aluminium, PVC and wood-aluminium window and door

Exceptional aesthetics provided by hidden

mounting screws, drains and connectors.

The option of creating many aesthetic

signer's vision and the users' needs.

tration into the room.

variants of the balustrade to suit the de-

Transparent infill to ensure full light pene-



Toughened ESG laminated glass in thicknesses from 10.8 mm (55.2) to 20.8 mm (1010.2) for safety.



Aesthetically pleasing handle over the top edge of the glass in lacquered aluminium or stainless steel to enhance user comfort.



Option to use photovoltaic infill to produce electricity from solar radiation.

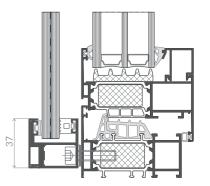


Easy assembly and prefabrication.

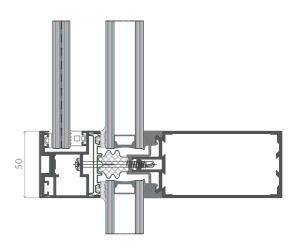
The AS VGB system has a **National Technical Assessment** issued by the Building Research Institute in Warsaw, necessary to legally introduce the product to the construction market.

#### Fastening the balustrade to the opening window





Fastening the balustrade to the facade mullion



78 Integrated glass balustrade system AS VGB www.aluron.pl 79 More technical drawings on p. 102





Option to mount it on windows, doors, displays, balconies and HS doors.

Selection of nets in accordance with the size

Can be made as a fixed, turn or sliding struc-



High-quality hinges, magnetic locks and hogies



Nets available in black and grey.



Option of constructing any number of running tracks in the case of a sliding mosquito net.

## Mosquito net system

### **ASM**

AS M is a classic mosquito net system providing complete protection against insects.

The system is compatible with aluminium systems as well as with the Gemini systems from Aluron's offer. The AS M system allows the execution of most variants of mosquito net constructions available on the market while maintaining the required rigidity and large dimensions without the need to use crossbars. Option of a crossbar in the leaf and filling with sheet metal.

The fixed frame mosquito net consists of a net, seal, brush seal and mounting clips. An opening frame mosquito net consists of net, seal, brush seal, mounting clips, handles and hinges.



1700 mm	2100 mm	1500 mm	2500 mm	2500 mm	2500 mm
Max. width of a fixed mosquito net	Max. height of a fixed mosquito net	Max. width of opening mosquito net	Max. height of opening mosquito net	Max. width of sliding mosquito net	Max. height of sliding mosquito net

## The following variations are possible within the AS M system:

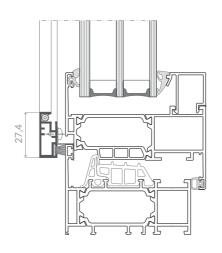
of the mosquito net.

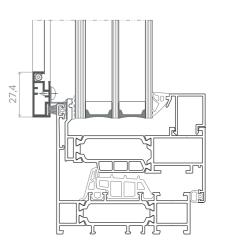
- fixed frame mosquito net with catches for windows of the systems: AS 75, AS 80US, AS 110
- screwed fixed mosquito net for windows of the systems: AS 75, AS 80US, AS 110
- opening frame mosquito net for balcony doors of the systems: AS 75, AS 110
- sliding frame mosquito net for doors of system AS 178HS



Section through a window with mosquito net

Section through window with mosquito net





80 Mosquito net system AS M www.aluron.pl 81



#### CLASSIC SILLS

Variable sill widths from 50 to 380 mm.

Possibility to weld sills at different angles.

Average sill thickness of approx. 2 mm.

Extruded aluminium for indoor acoustic

#### SOFT LINE SILLS

Angular shape of the aluminium profiles.

Rounded shape of the aluminium profiles.



Variable sill widths from 150 to 300 mm.



Possibility to weld sills at different angles.



Average sill thickness of approx. 2 mm.



Extruded aluminium for indoor acoustic

### Aluminium sills

### Classic and Soft Line

The comprehensive Classic and Soft Line systems are dedicated to timber, aluminium, PVC and windows with aluminium covers.

They are manufactured using the aluminium extrusion method from constructional alloys that meet the highest quality standards. The products are distinguished by: high rigidity, excellent durability, tightness and solid workmanship.

The system is completed by a wide range of accessories including: end caps, gaskets, stainless steel screws, screw cover clips.

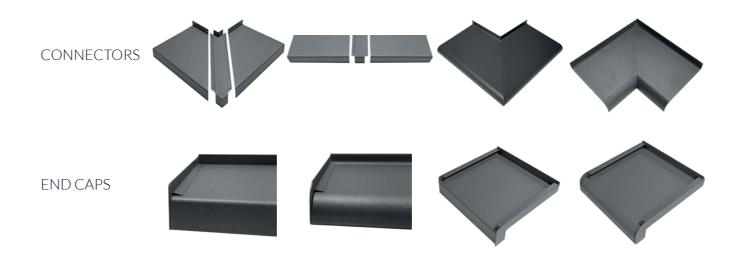
Aluron window sills are available in three surface finishes: anodised, powder-coated and imitation wood texture.





### ALUMINIUM WINDOW SILLS - ACCESSORIES

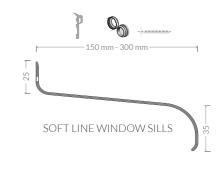
Accessories	End	сар	An	gular connecto	or	Straight connector	Window sill support bracket
	Plastic	Aluminium	Internal	Internal External		Straight	Aluminium
	Plastic	Alullilliulli	900	90°	135°	180°	Aluminium
Classic				-			•
Soft Line				-		-	



#### Section through a Classic window sill

Section through a Soft Line window sill





#### SYSTEM CHARACTERISTICS

Windowsills											W	idth (	(mm)										
Window sills	50	70	90	110	130	150	165	175	180	195	200	210	225	240	250	260	275	280	300	320	340	360	380
Classic																							
Soft Line																							

82 Aluminium sills Classic and Soft Line www.aluron.pl 83





Resistance to unfavourable weather conditions and UV radiation.

The grooved surface of the board prevents

Quick and easy installation with screws and

slipping and abrasion of the paint.

to mechanical damage.

special clips.



Eliminates time-consuming and labour-intensive maintenance.



Freedom to choose RAL colours and wood decors from the Aluron Color Collection2



KT 1142 / board profile

High resistance to mechanical damage.

### Aluminium decking board

### **Patiocover**

Patiocover is a new solution in Aluron's offer, which is an alternative to wooden and composite boards traditionally used to construct terraces.

The durability of aluminium guarantees long-term durability and resistance to weather conditions and mechanical damage.

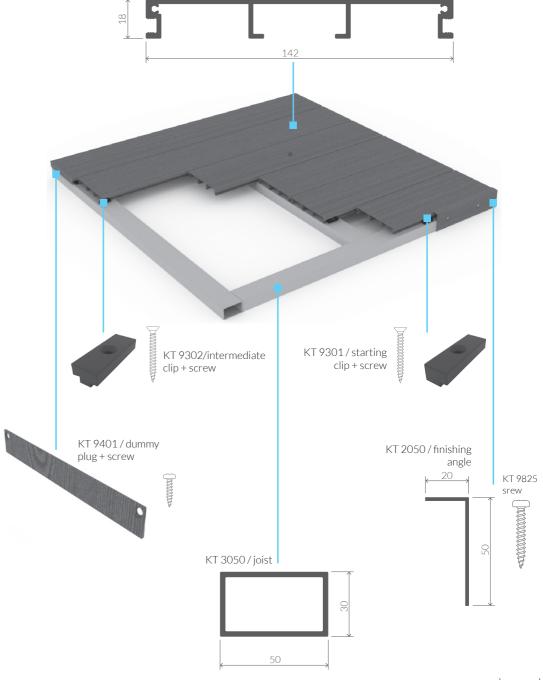
A rich RAL colours palette and wood decors allows of easily matching the colour of the decking board to the joinery and other equipment elements such as blinds, roller blinds, mosquito nets, balustrades or fencing.

The system is complemented by a wide range of accessories including: intermediate and initial clips, screws, caps and finishing angles.



#### SYSTEM CHARACTERISTICS

6000 mm	142 mm	18 mm	5 mm	10 mm
Board length	Board width	Board thickness	Gap between boards	Recommended expansion gap between the boards and the wall



84 Aluminium decking board Patiocover www.aluron.pl 85





Resistance to unfavourable weather conditions and UV radiation.

to mechanical damage.

Quick and easy assembly

Light construction with increased resistance



Stability of the structure, boards adjacent to one another creating an even surface.



Eliminates time-consuming and labour-intensive maintenance.



Freedom to choose RAL colours and wood decors from the Aluron Color Collection2 palette.

### Aluminium facade board

### Verticover

Verticover aluminium facade boards are an extremely elegant and modern way to finish the facades of both private houses and public utility buildings.

They are characterized by extraordinary durability and resistance to mechanical damage. The facade board can be laid vertically, horizontally or at any angle, which makes it an interesting architectural element that gives a unique character to each investment.

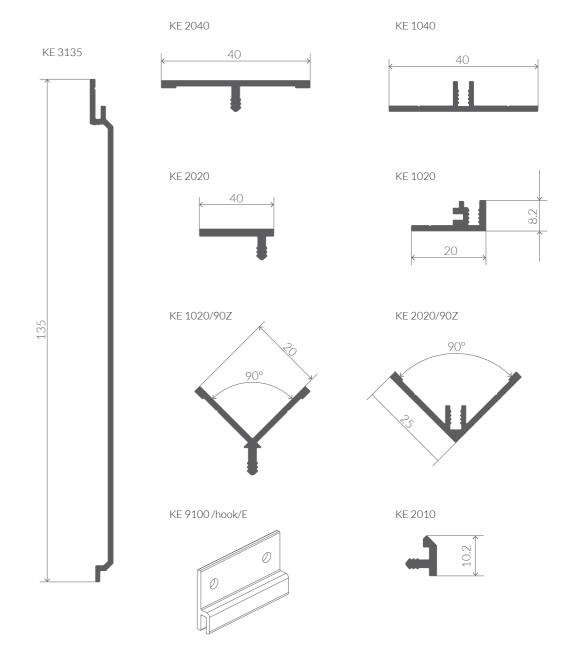
A rich palette of RAL colours and wood decors allows of easily matching the colour of the facade boards to the joinery, house facade and other equipment elements such as: entrance doors, blinds, roller blinds, mosquito nets, balustrades or fences.

The system is complemented by accessories including: corner profiles, connectors, catches and screws.



#### SYSTEM CHARACTERISTICS

6000 mm	135 mm	8 mm	7 szt.
Board length	Board width	Board thickness	Number of boards per 1 m.

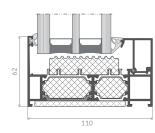


86 Aluminium facade board Verticover www.aluron.pl 87

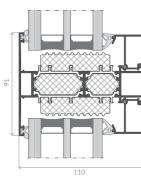
### **ADDITIONAL CROSS-SECTIONS AND THERMAL VARIANTS**

### AS 110 PASSIV window —

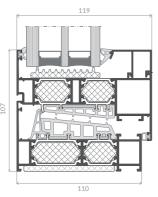
Section of fixed window frame



Section of fixed window spacer



Section of opening window



#### Heat transfer coefficient Uw [W/m<sup>2</sup>K]

for a reference window with dimensions 1.23 x 1.48 m FIXED WINDOW

		A1/21/1		
	Uwlv	V/m²K]		
	Ug = 0,3	Ug = 0,5	Ug = 0,6	Ug = 0,
AS 110 B1	0,47	0,65	0,74	0,81
AS110 B2	0,46	0,64	0,72	0,80
AS 110 P1	0,46	0,64	0,72	0,80
AS 110 P2	0,43	0,61	0,69	0,77
AS 110 P3 Passiv	0,42	0,60	0,68	0,76

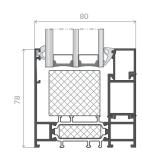
#### Heat transfer coefficient Uw [W/m<sup>2</sup>K]

for a reference window with dimensions 1.23 x 1.48 m OPENING WINDOW

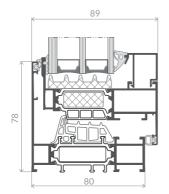
	Uw[V	V/m²K]		
	Ug = 0,3	Ug = 0,5	Ug = 0,6	Ug = 0,7
AS 110 B1	0,75	0,90	0,97	1,03
AS 110 B2	0,74	0,90	0,96	1,02
AS 110 P 1	0,63	0,78	0,85	0,91
AS110 P2	0,54	0,68	0,75	0,81
AS 110 P3 Passiv	0,51	0,66	0,73	0,80

### AS 80US hidden window sash

Section through fixed panel with hidden sash



Section through opening window with hidden sash



### AS 80US hidden window sash -

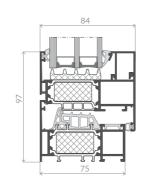
Heat transfer coefficient Uw [W/m<sup>2</sup>K] for a reference window with dimensions 1.23 x 1.48 m

	Uf		Uw[W	//m²K]	
	[W/m <sup>2</sup> K] G=46mm/28 mm	Ug = 0,5	Ug = 0,6	Ug = 0,7	Ug = 1,0
AS 80UST1	2,37/ 2,59	0,97	1,05	1,12	1,44
AS 80UST2	1,33/ 1,45	0,74	0,82	0,90	1,19
AS 80UST3	1,15/ 1,28	0,71	0,78	0,86	1,16

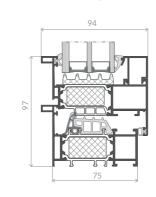
AS 80US T1	2,04/ 2,21	0,92	1,00	1,07	1,37
AS 80US T2	1,63/ 1,73	0,83	0,90	0,98	1,26
AS80UST3E	1,61/ 1,70	0,82	0,90	0,97	1,25
AS 80US T3	1,40/ 1,50	0,77	0,85	0,92	1,20

### AS 75 window -

Window opens



INDUSTRIAL profiles



#### Heat transfer coefficient Uw [W/m<sup>2</sup>K]

for a reference window with dimensions 1.23 x 1.48 m

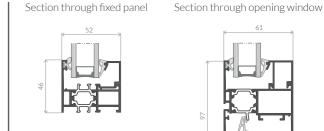
		Uf	Uw [W/m²K]					
		[W/m <sup>2</sup> K] G=46mm/28 mm	Ug = 0,5	Ug = 0,6	Ug = 0,7	Ug = 1,0		
OP	ENING WINDOV	V						
AS 75T1		2,04/ 2,19	0,97	1,04	1,11	1,41		
AS 75T2		1,66/ 1,74	0,87	0,94	1,01	1,28		
AS 75T3E		1,52/ 1,60	0,83	0,91	0,99	1,25		
AS 75T3		1,34/ 1,42	0,79	0,86	0,93	1,20		

#### Heat transfer coefficient Uw [W/m<sup>2</sup>K]

for a reference window with dimensions 1.23 x 1.48 m

		Uf	Uw [W/m²K]					
		[W/m <sup>2</sup> K] G=46mm/28 mm	Ug = 0,5	Ug = 0,6	Ug = 0,7	Ug = 1,0		
FIX	ED WINDOW							
AS 75T1		1,98/ 2,10	0,79	0,87	0,96	1,26		
AS 75T2		1,56/ 1,67	0,73	0,81	0,89	1,19		
AS 75T3		1,19/ 1,28	0,67	0,76	0,84	1,14		

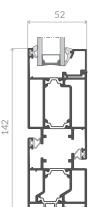
### AS 52 window



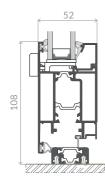
**88** Additional cross-sections and thermal variants www.aluron.pl 89

### AS 52 door -

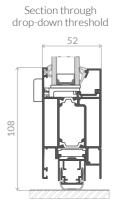
Door basic section



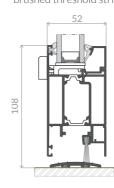
tion AS 52 AS 52 with threshold 15 mm aluminium



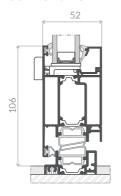
shold n dro



Section through the brushed threshold strip

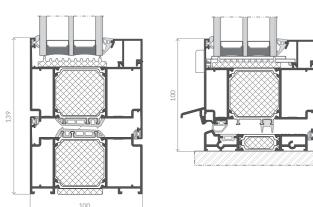


Section through the aluminium threshold

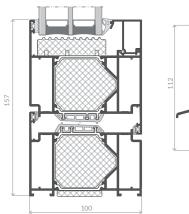


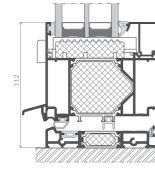
### AS 100 door

Basic profiles



Reinforced profiles





#### Heat transfer coefficient Uw [W/m²K]

Cross sections

for a reference window with dimensions 2.18 x 1.48 m

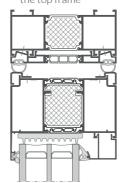
UD [W/m<sup>2</sup>K]

Cross sec	tions			JD [W/m²l		
		Ug = 0,3	Ug = 0,5	Ug = 0,6	Ug = 0,7	Up = 0,55 (panel)
AS 100.T1						
		0,90	1,04	1,15	1,21	1,06
		0,91	1,05	1,15	1,22	1,07
		0,93	1,07	1,17	1,23	1,08
		0,94	1,08	1,18	1,24	1,09
AS 100.T2-w	ithout the	rmal isn	ulators			
		0,75	0,89	0,98	1,05	0,89
		0,78	0,90	0,99	1,06	0,90
		0,78	0,92	1,01	1,07	0,92
		0,79	0,93	1,01	1,08	0,93
AS 100.T3 - v	with therm	al isnula	ators			
		0,56	0,70	0,79	0,86	0,70
		0,57	0,71	0,80	0,87	0,70
		0,58	0,72	0,80	0,87	0,71
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0,59	0,73	0,81	0,88	0,72

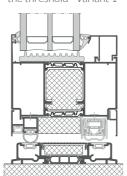
### AS 100 PIVOT -

#### **GLASS INSERT**

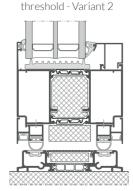
Cross-section through the top frame



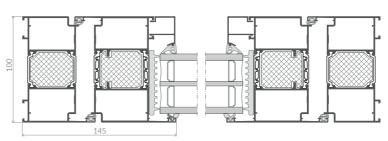
Cross-section through the threshold - Variant 1



Cross-section through the threshold - Variant 2

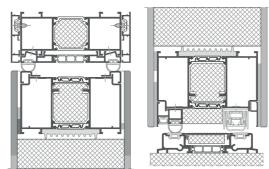


Cross-section through vertical frames

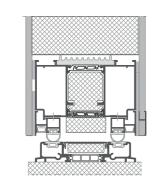


#### **GLASS LINE**

Cross-section through the top frame



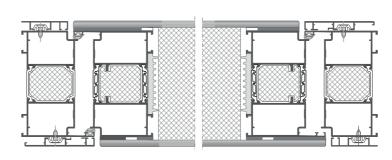
Cross-section through the threshold - Variant 1



Cross-section through

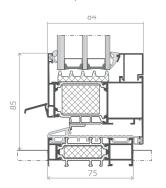
the threshold - Variant 2

Cross-section through vertical frames

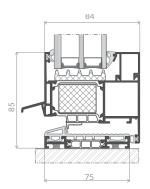


### AS 75 balcony door ——

Low balcony threshold

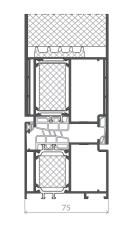


Low balcony threshold

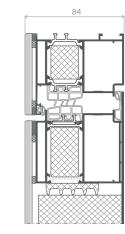


### AS 75P pannel door —

#### Variant with panel



Variant with enameled glass



90 Additional cross-sections and thermal variants

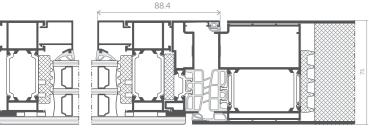
## AS 75 door -Frame + leaf Drop-down threshold Plastic threshold Aluminium threshold Aluminium threshold with kick plate

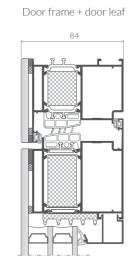
 $\textbf{Heat transfer coefficient Uw [W/m^2K]} \ for a reference window opening outward with dimensions \ 2.18 \times 1.48 \ m$ 

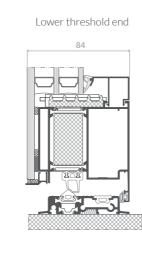
Uf [W/m²K]	Uf [W/m²K]		Uw[W	//m²K]			Uf [W/m²K]		Uf [W/m <sup>2</sup> K]		n²K] Uf [W/m²K]		<sup>2</sup> K1	Uw [W/m²K]			
G=46mm/28 mm	G=46mm/28 mm	Ug = 0,5	Ug = 0,6	Ug = 0,7	Ug = 1,0			G=46mm/28 mm		G=46mm/28	8 mm	Ug = 0,5	Ug = 0,6	Ug = 0,7	Ug = 1,0		
2,51/2,55	2,48/ 2,53	1,17	1,24	1,3	1,55		AS 75W1		2,29/ 2,32		2,18/ 2,21	1,10	1,17	1,24	1,47		
2,34/ 2,40	2,23/ 2,31	1,11	1,18	1,25	1,49		AS75W2		2,10/ 2,16	NAMES	1,89/ 1,95	1,03	1,10	1,17	1,42		
2,20/2,25	2,11/ 2,19	1,07	1,14	1,21	1,45		AS 75W3		1,96/ 2,00		1,77/ 1,83	0,99	1,06	1,13	1,37		
2,53/2,57	2,49/ 2,54	1,18	1,24	1,31	1,55		AS 75G1		2,09/ 2,11		2,18/ 2,21	1,05	1,12	1,18	1,42		
2,36/2,42	2,25/ 2,32	1,12	1,19	1,25	1,50		AS75G2		1,88/ 1,92		1,89/ 1,95	0,98	1,05	1,11	1,35		
2,24/2,29	2,16/ 2,22	1,08	1,15	1,22	1,46		AS 75G3		1,70/ 1,74		1,77/ 1,83	0,93	0,99	1,06	1,3		

### AS 75P GLASS LINE ————

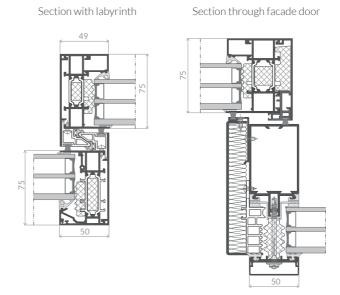




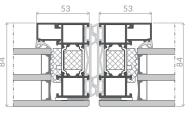




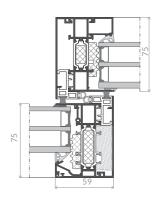
### **AS AD 75**



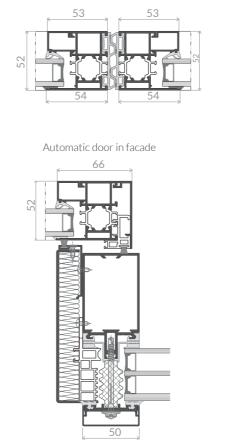
Section through an all-glass double-leaf door



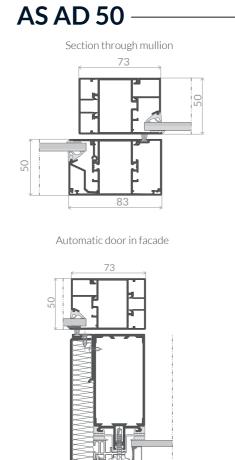
Section through mullion with seal



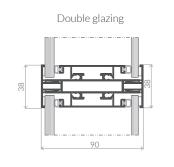




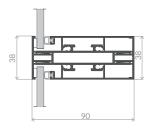
Section through mullion



### **ACS 38** —



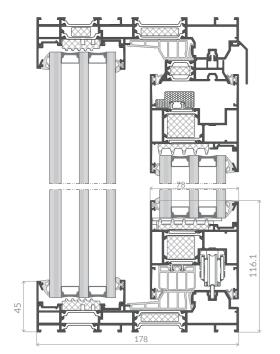
Single glazing



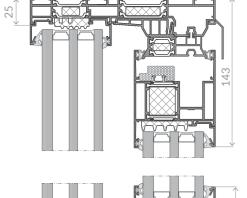
**92** Additional cross-sections and thermal variants www.aluron.pl 93

### AS 178HS PRO SLIM



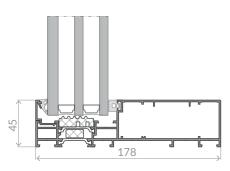


Vertical section - frame with fixed glazing (42 mm hardware groove)

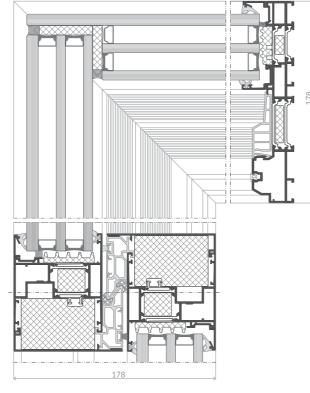


\$\frac{1}{178}

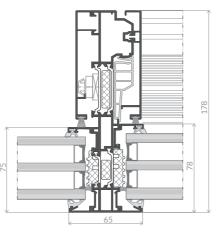
Cross-section through fixed frame



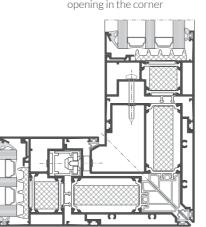
All-glass corner in the AS 178HS system



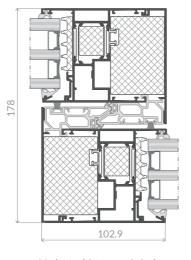
Combination of AS 75 with AS 178HS



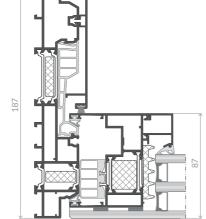
Section through two leaves opening in the corner



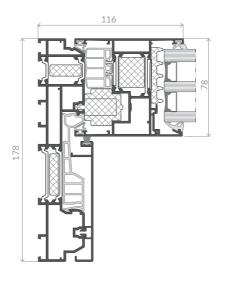
Standard variant

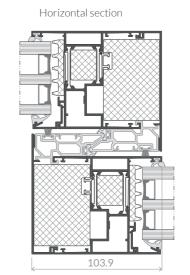


Variant with stepped glazing



### **AS 178HS PRO SLIM**

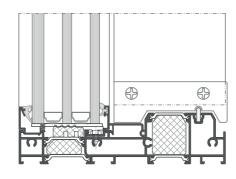




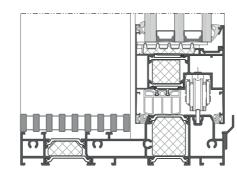
116

### **AS 178HS MODERN**

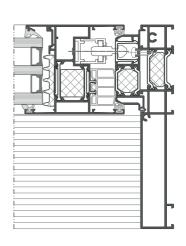
Bottom section through the fixed field



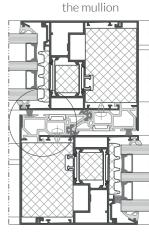
Bottom section through the movable field



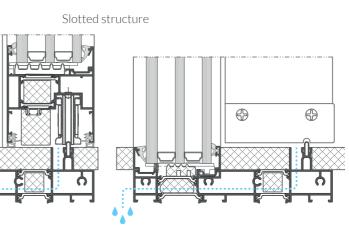
Side cross-section

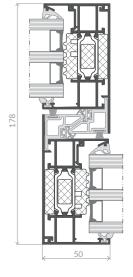


Cross-section through



Cross-section - 50 mm mullion

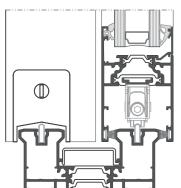


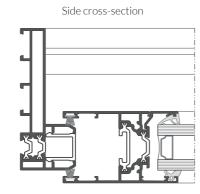


94 Additional cross-sections and thermal variants

### AS 86 SLIDE

#### Bottom section of the movable field

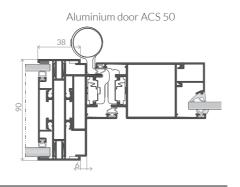




### ACS 38 door integration

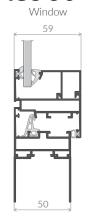


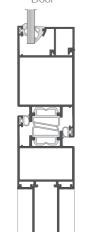




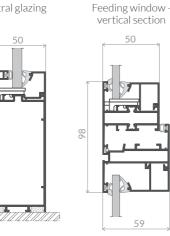
Feeding window - horizontal cross-section

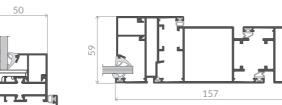
ACS 50
Window







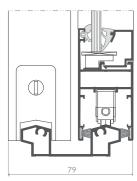




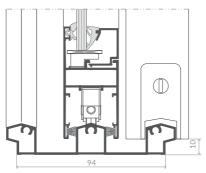
Feeding window - vertical section

### **ACS COLD SLIDE**

Bottom section - dual carriageway frame

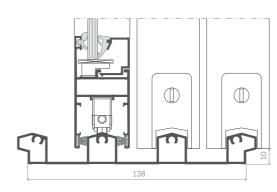


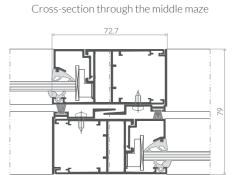
Bottom cross-section 3 rail frame



### **ACS COLD SLIDE**

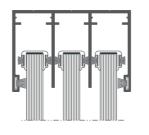
Bottom section - 4 rail frame

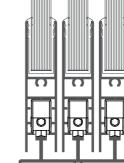




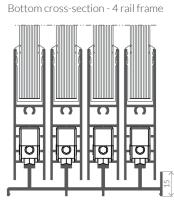
### **ACS OPTIGLASS**

Top cross-section -3 rail frame

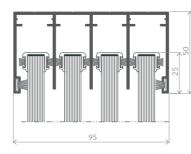


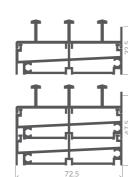


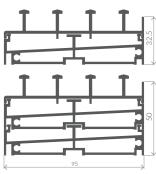
Bottom cross-section - 3 rail frame



Upper section - 4 rail frame

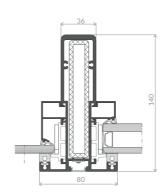


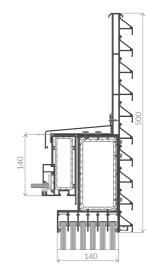




### **ACS GLASS GARDEN**

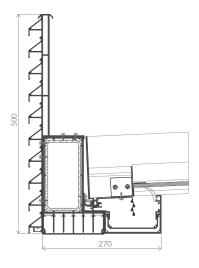
Cross-section through the roof rafter





Side section

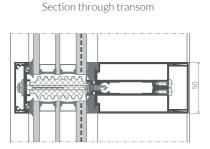
Cross-section with concealed gutter



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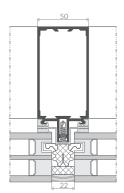
## AF 50KW QUANTUM — AF 50 -

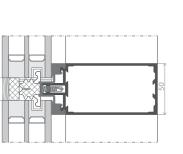
Section through mullion



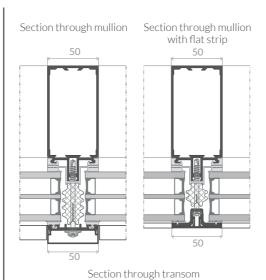
**AF 50S** 

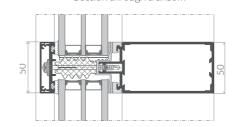
Section through mullion

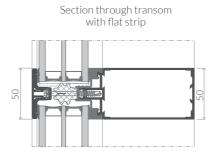




Section through transom

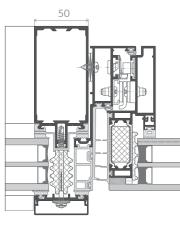




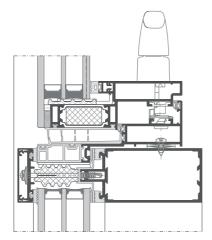


### **AF 50W** -

Section through mullion with window

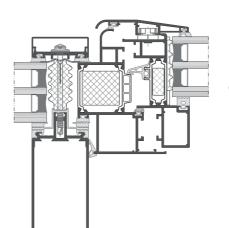




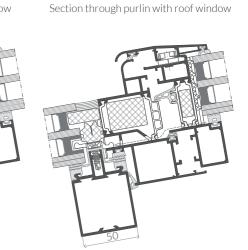


### **AF 50R** –

Section through rafter with roof window

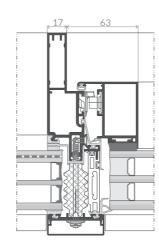


Section through purlin with roof window

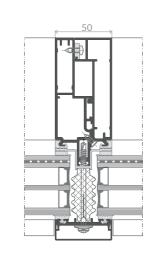


IW 50

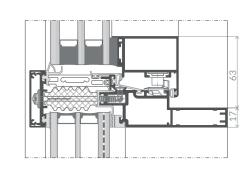
Section through mullion with window - variant IW AF 50



Section through mullion -variant IW AF 50

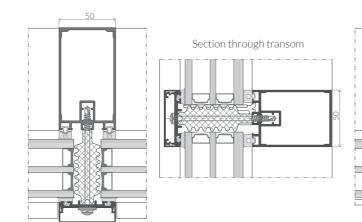


Section through transom with window - variant IW AF 50KW

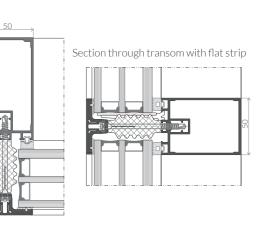


### ATF 50 block seal -

Section through mullion

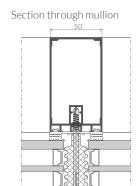


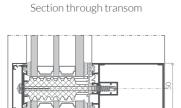
Section through mullion with flat strip

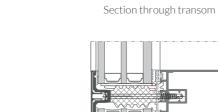


**98** Additional cross-sections and thermal variants www.aluron.pl 99

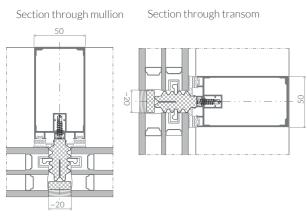
### ATF 50 sheath seal -

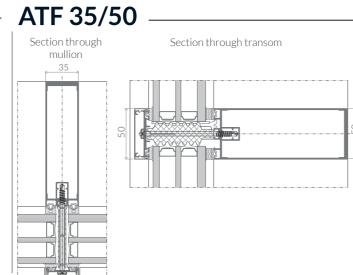






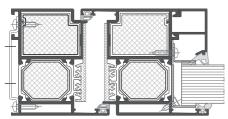
### **ATF 50S**



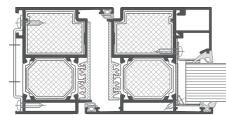


### **AS 75EI** -

Cross-section of the door opening inwards – El 60 variant



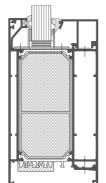


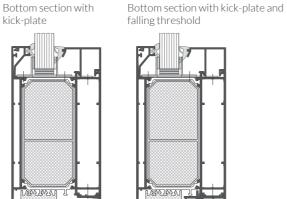


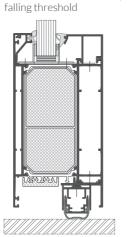
#### EI 30 THRESHOLD VARIANTS

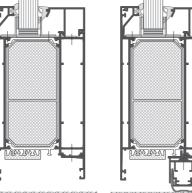
Bottom section with brush seal

Bottom section with falling threshold Bottom section with threshold









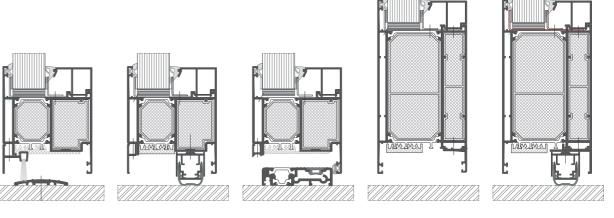
EI 30 THRESHOLD VARIANTS

Bottom section with brush seal

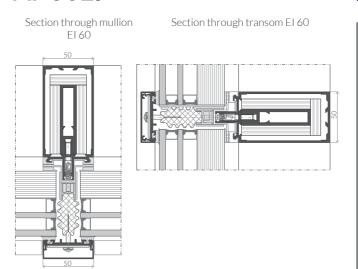
Bottom section with falling threshold Bottom section with threshold

Bottom section with kick-plate

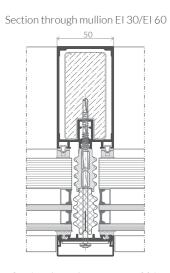
Bottom section with kick--plate and falling threshold



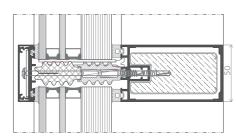
### AF 50EI



### ATF 50EI block seal

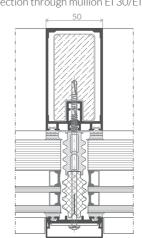


Section through transom EI 30/EI 60

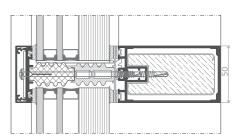


### ATF 50EI sheath seal -

Section through mullion EI 30/EI 60



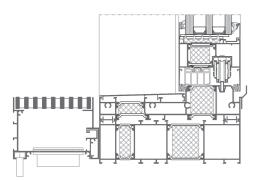
Section through transom EI 30/EI 60



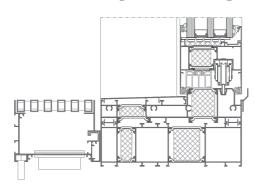
100 Additional cross-sections and thermal variants

### LINEAR DRAINAGE

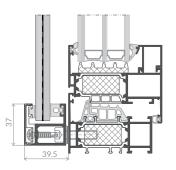
Bottom section through HS with linear drainage



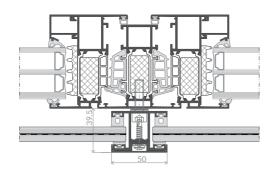
Bottom section through HS with linear drainage



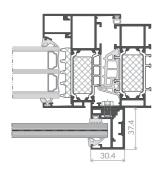
Window end mullion



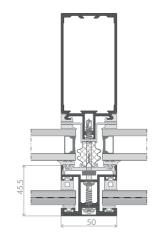
Window intermediate mullion



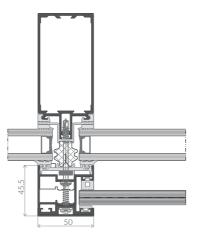
Single-profile window end mullion



Intermediate mullion in facade

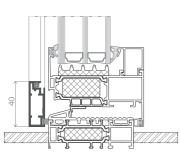


End mullion in facade

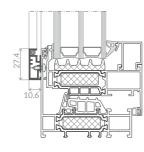


### **ASM**

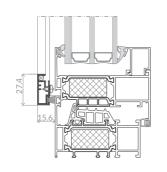
Mosquito net for balcony door



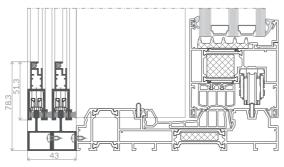
Screw-on frame mosquito net



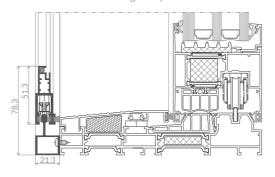
Frame mosquito net with catches

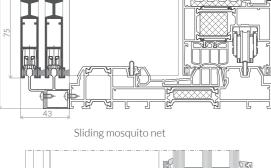


Sliding mosquito net

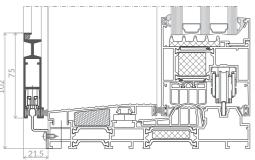


Sliding mosquito net





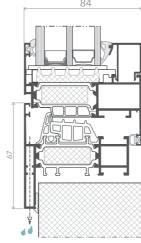
Sliding mosquito net

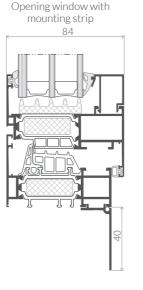


### **EXPORT SOLUTIONS**

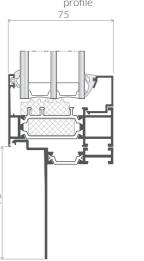
AS 75

Opening window - renovation frame

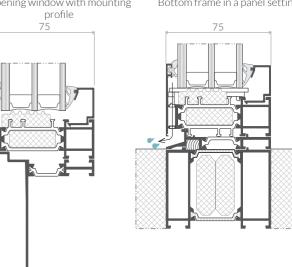




Opening window with mounting

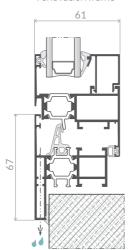


Bottom frame in a panel setting

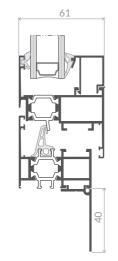


AS 52

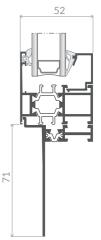
Opening window - renovation frame



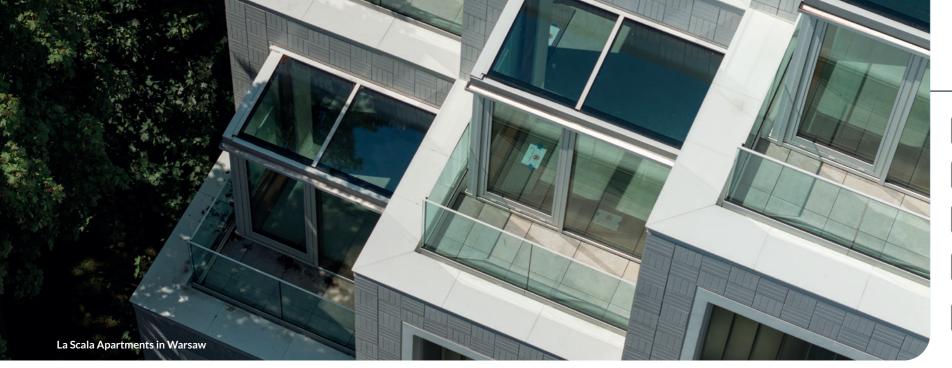
Opening window with mounting



Opening window with mounting profile



**102** Additional cross-sections and thermal variants www.aluron.pl 103





Complete gutter system.

transom 50.

FB, Integral I and II.

to the use of levelling profiles.

Profile bending is possible in the case of

High tightness thanks to the use of coat seals.

Compatible with Gemini window and door

systems: Classic, Linear, Quadrat, Quadrat

Possibility of using glazing units of different thickness inside one mullion/transom thanks



Various cap profiles, including with wooden cladding.



Up to 3 levels of drainage possible.



Wide range of available installation variants.



Vella S system available with structural glazing technology.



Vella S - three ways of fixing the glass: holding by the inner pane, by the glued-in frame or pointing by the glued-in fasteners.

### **VELLA**

### mullion and transom facade

Vella is a wood-aluminium system designed for the construction of facades and winter gardens.

The load-bearing structure is made of wooden mullions with a thickness of 50, 60 or 80 mm and a depth adopted based on static calculations. The system consists of a wide variety of aluminium profiles, seals and insulators. It ensures permanent fixing of the glass, extraordinary tightness, high thermal parameters and guarantees excellent protection for wood.

The mullions and transoms of the Vella system are connected using RICON connectors, which are capable of bearing loads of up to 550 kg due to the weight of the glass. All connectors are mounted invisibly to the user. What is more, they are removable, making pre-assembly possible.



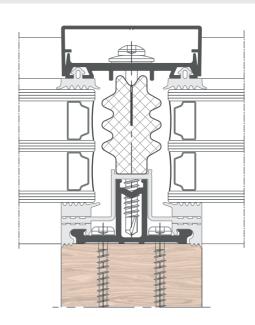
#### SELECTED SYSTEM PARAMETERS

class AE 2100 Pa	class AE 2100 Pa	class RE 2100 Pa	class RE 2100 Pa	2100 Pa	class I5/E5	class I5/E5
Air permeability – wall without window	Air permeability – wall with window	Water tightness – wall without window	Water tightness – wall with window	Wind load resistance	Impact resistan- ce - 1-chamber double-glazed unit	Impact resistance 2-chamber double- -glazed window

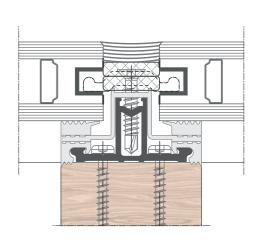
#### SYSTEM CHARACTERISTICS

from 0.614 W/ m²K	up to 450 kg	up to 550 kg	9-60 mm	9-62 mm	50, 60, 80 mm	50 mm
Thermal Insulation U facade	Load bearing capacity of glass - conventional brackets	Load bearing capacity of glass - brackets reinforced, single/ double- -sided cross	Glass section thickness for the Vella system	Glass section thickness for the Vella S system	Wood section thickness for the Vella system	Wood section thickness for the Vella S system

#### Section through facade Vella



#### Section through facade Vella S



104 VELLA mullion and transom facade





System corners joined at 45°.



Corner joints with "invisible weld" technology to guarantee a smooth, uniform surface.



Mechanical jointing of corners using fasteners with visible cut edges.



Easy and quick installation in production conditions.



Optional bending of sash and frame profiles to create structures with unusual shapes.



Proprietary software for preparing quotes and placing orders.



Glazing from the outside with aluminium strip in systems: Linear, Quadrat, Quadrat FB, SI Standard and SI Sky



A solution compatible with Classic and Soft Line aluminium window sills.



An option for using the Gemini Insecta system frame mosquito net.



An option to install a Gemini IGB balustrade integrated into the cladding or an independent balustrade with Gemini VGB extended profile.

# **GEMINI** wooden-aluminium systems for windows and doors



They are supplied to customers in the form of pre-fabricated frames compatible with cutters from leading woodwork manufacturers. The solution combines the natural warmth and exclusivity of wood with the durability and versatility of aluminium, creating a PREMIUM quality product.

Aluminium cladding separates the wooden part of the window from the adverse effects of the weather, increasing the durability of the entire structure. Wooden-aluminium windows do not require labour-intensive maintenance. Gemini cladding positively influences the acoustic comfort of users. They improve statics and tightness of designed structures.

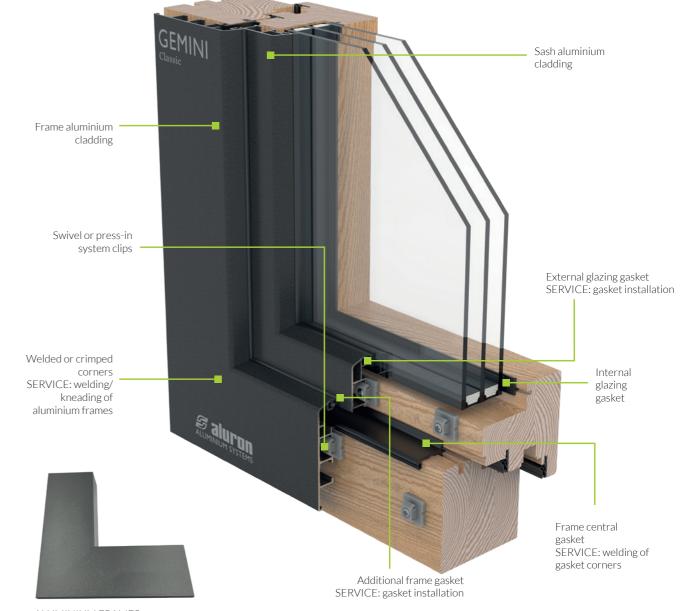
The aluminium frames form an independent structure in relation to the window and door. This translates into proper and safe operation of the window in changing temperature conditions and easy removal of the cladding in the event of damage. They are mounted using the system swivel and press-in strikers or, in selected systems, using concealed screws.

#### SELECTED SYSTEM PARAMETERS

Uw from 0.72 W/m²K	Uw from 0.61 W/m²K	class E1200 / 9A	class C3/B3	class 4	68-92 mm	24-64 mm
Thermal insulation of conventional systems	Thermal insulation of passive systems	Water tightness	Wind load resistance	Air permeability	Wood section thickness	Glass packet thickness







ALUMINIUM FRAMES
Perfectly flat welded corners

106 Wooden and aluminum systems GEMINI for windows and doors

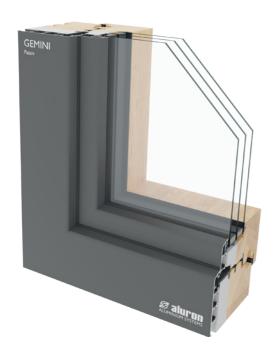
### SYSTEMS FOR PASSIVE HOUSING

A group of components certified by Passivhaus Institut, designed for use in passive houses. The system uses an innovative high-strength insulation material based on foamed PS. It offers above-average thermal performance.

#### Available in variants:

- Passiv Classic
- Passiv Softline
- Passiv Linear
- Passiv Quadrat
- Passiv Retro

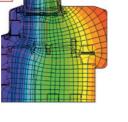
#### Gemini Passiv / Passiv Ultra \_





Cool-moderate climate  $Uw \le 0.80 W/(m^2K)$ for  $Ug = 0.7 \text{ W/m}^2\text{K}$ 





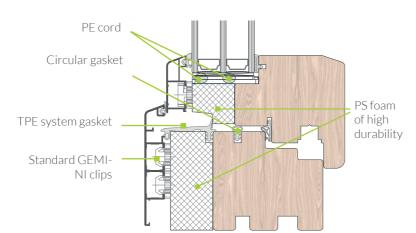
Passiv Ultra

Uw built in ≤ 0,65 W/(m<sup>2</sup>K)

for  $Ug = 0.52 \text{ W/m}^2\text{K}$ 

Cold climate

>0,62

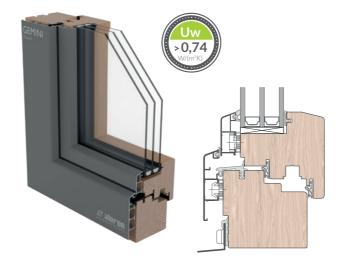


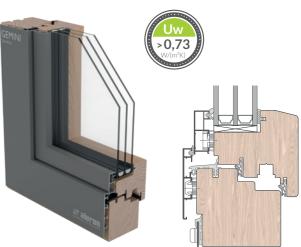
### WINDOW SYSTEMS WITH CENTRAL SEAL

The solutions are equipped with a central seal welded at the corners made of TPE. In addition to providing high tightness properties, they are responsible for the controlled drainage of water to the outside of the structure.

#### Gemini Classic

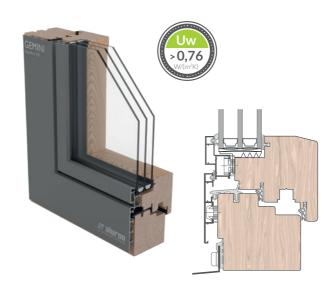


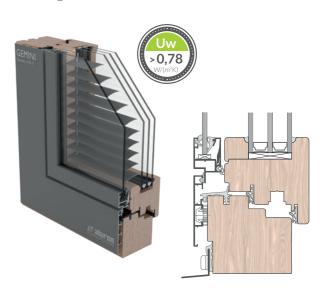




GEMINI Quadrat FB

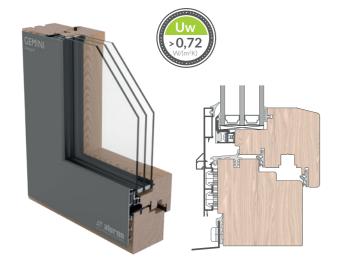
GEMINI Quadrat FB-V with integrated sun breakers

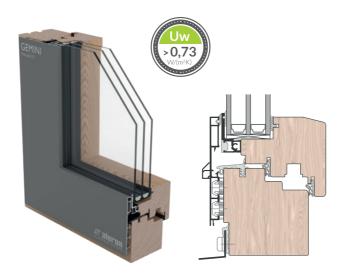




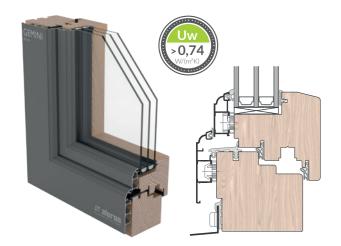
Gemini Integral

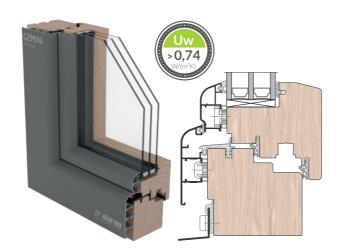
GEMINI Integral II \_\_\_\_\_\_





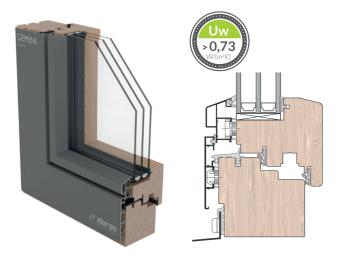
Gemini Retro \_\_\_\_\_ GEMINI Soft Line \_\_\_\_\_

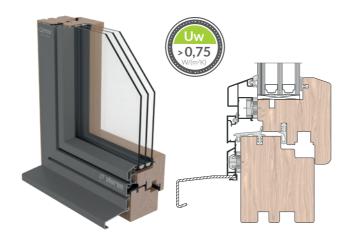




GEMINI Linear \_\_\_\_

GEMINI SWISS Linear

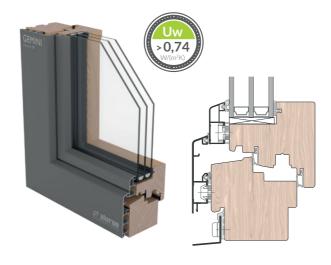


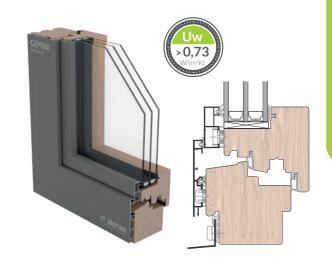


### WINDOW SYSTEMS WITH A TRANSVERSE REBATE SF

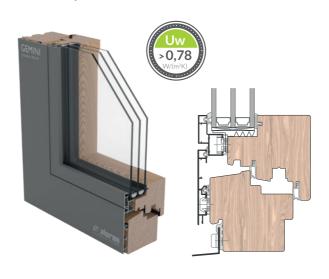
In this group of GEMINI products the main frame gasket is replaced by a transverse rebate made in a wood frame. Water is drained through the transverse part of the frame rebate towards the drainage holes made in the aluminium profiles. The solution is provided for rebates being oblique in the range of 7-15 degrees.

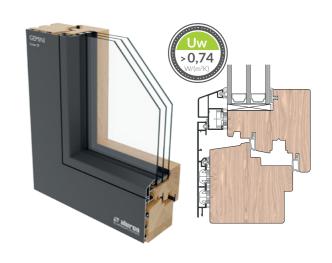
Gemini Classic SF \_\_\_\_\_ GEMINI Quadrat SF \_\_\_\_\_



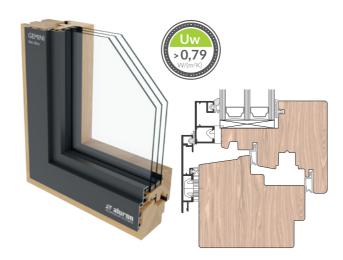


Gemini Quadrat FB SF \_\_\_\_\_ GEMINI Linear SF \_\_\_\_\_





Gemini Quadrat SFL 68

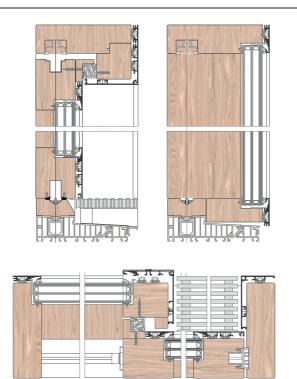


### LIFT AND SLIDE DOOR SYSTEMS

The products in this series are structurally based on Sigenia's EKO PASS and EKO PASS SKY threshold solutions. They are used to make wooden-aluminium HS doors in schemes A, C, G2, G3 and K. They are stylistically matched to the Gemini systems Quadrat, Linear and Quadrat FB. The recommended width of the timber leaf profile is 100-150 mm for GEMINI SI STANDARD and 100 mm for GEMINI SI SKY. A distinctive feature of the SI SKY solution is the absence of a typical fixed leaf.

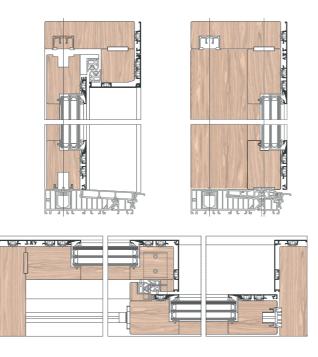
#### GEMINI SI SKY \_



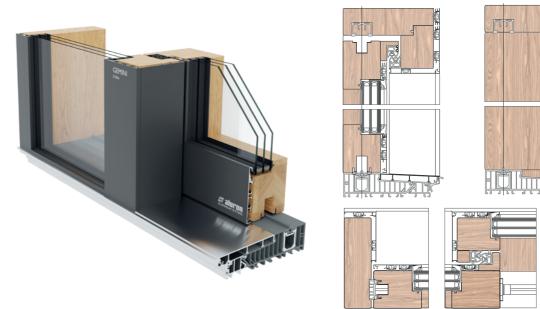


#### GEMINI SI STANDARD \_

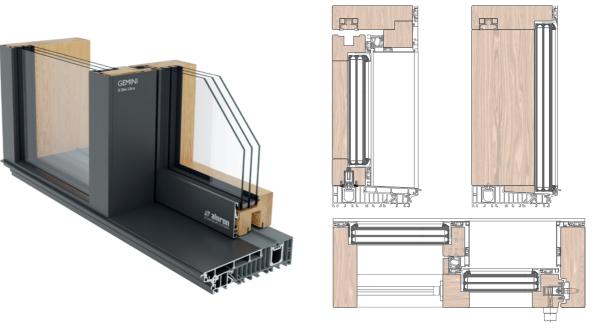




#### GEMINI SI SLIM \_\_\_\_\_



#### GEMINI SI 62 SLIM \_\_\_\_\_

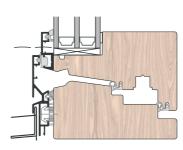


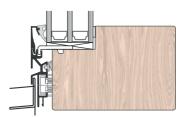
### GEMINI CTS SYSTEM \_\_\_\_\_

Designed for windows with "Clima Trend Style" cutters. The CTS design allows the visible part of the profiles to be reduced to less than 100 mm. The option of using glass up to 70 mm wide has a beneficial effect on the thermal and acoustic parameters of the design.





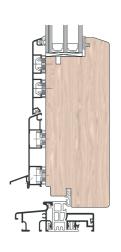


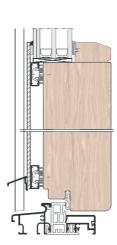


#### **GEMINI DOOR SYSTEM**

Used for the construction of wooden-aluminium doors with infill and panel doors mounted with systemic mounting strikers.







#### EXAMPLE MODELS OF GEMINI ATD 32 PANELS











P 05







### PREFABRICATED PRODUCTS ready for assembly

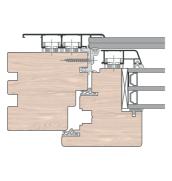
### **ALL-GLASS WINDOW BALUSTRADES**

They have a protective function, protecting users against falling, and a decorative function, constituting an interesting architectural detail. Aluron offers two types of balustrades: integrated GEMINI IGB B, in which the glass is built inside the window structure, in the aluminium profile of the frame and independent GEMINI VGB, B, in which the overhead profile is screwed to the window structure from the outside.

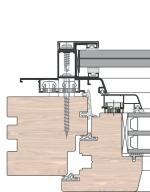
Gemini IGB \_\_\_\_\_











### **GEMINI INSECTA** frame mosquito net systems

Mosquito nets are designed for windows, doors, and sliding doors. The frame mosquito net consists of an aluminium frame, a net with a gasket, a brush gasket, mounting clips, brackets, and hinges. The GEMINI INSECTA mosquito net is offered exclusively in a processed form, as a ready-made mosquito net frame, in the ordered dimensions, profile colour, net and the selected equipment. There are two variants of mosquito nets: with faced frame profile or with an overhead frame profile.

Gemini INSECTA \_\_\_\_\_\_

#### GEMINI INSECTA \_\_\_\_\_





### Professional aluminium cladding systems

### **RENOLINE**

Gemini Reno Line is a wood-alu system designed for the external renovation of new and existing wooden windows.

Base structure component of the Gemini Reno Line system is the IV 68 wooden window, on which aluminium frames are mounted in the final phase. The glazing is entirely set on the wooden rabbet, which means there is no need for additional milling. The Reno Line system offers an angular shape of profiles and also a classic design. Adding aluminium frames results in supreme resistance to weather factors compared to the wood-only option. GEMINI Retro allows for the enhancement of aesthetic values and change of colour scheme without replacing entire windows.



#### **DESIGN & FUNCTIONALITY**



System corners joined at 45°.



Optional - system corners can be joined at 90° for self-assembly.



Mechanical jointing of corners using fasteners with visible cut edges.



Optional bending of sash and frame profiles to create structures with unusual shapes.



Easy and quick installation in production conditions



Proprietary software for preparing quotes and placing orders.



A solution compatible with Classic and Soft Line aluminium window sills.



An option for using the Gemini Insecta system



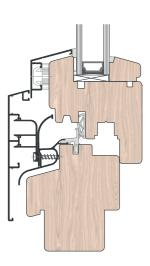
Corner joints with "invisible weld" technology to guarantee a smooth, uniform surface.

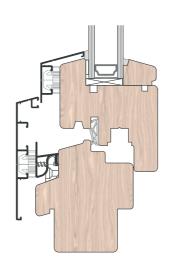


An option to install a Gemini IGB balustrade integrated into the cladding or an independent balustrade with Gemini VGB extended profile.

Cross-section of the RenoLine ATWB drip cap

Cross-section of the RenoLine drip cap AWZ 16





# **NORDIC I, III** wood-aluminum systems for windows and doors

The Nordic system is a product dedicated mainly to Scandinavian markets. Its appearance refers to the shape of wooden windows popular in that region.

Nordic is compatible with most Scandinavian types of fittings, such as: PN Beslag, IPA or Spilka. The system allows for many variants of opening, e.g. tilting or rotating structures both in the horizontal and vertical axis. It is also available for windows of various and unusual shapes.

The NORDIC product group is available in two construction variants: **NORDIC I** – Offers the most variants of window opening, including rotation in the horizontal and vertical axes. Requires the use of specialized cutters.

**NORDIC III** – Allows the installation of aluminium cladding on wooden windows that open outwards with a standard construction. It does not require the use of specialized milling heads.



#### **DESIGN & FUNCTIONALITY**



System corners joined at 45°.



Corner joints with "invisible weld" technology to guarantee a smooth, uniform surface.



Mechanical jointing of corners using fasteners with visible cut edges.



Wood section thickness 56-68 mm.

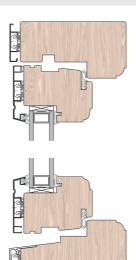


Optional bending of sash and frame profiles to create structures with unusual shapes.

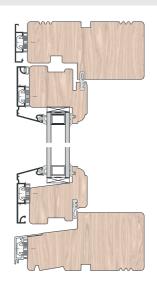


Glass packet thickness 24-44 mm.

#### Section through the Nordic I variant



#### Section through the Nordic III variant



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116 Professional aluminium cladding systems Reno Line NORDIC I, III wood-aluminum systems for windows and doors



45°

System corners joined at 45°.



Corner joints with "invisible weld" technology to guarantee a smooth, uniform surface.



Mechanical jointing of corners using fasteners with visible cut edges.



Easy and quick installation in production conditions.



Wide range of available designs.



Proprietary software for preparing quotes and placing orders.



Universal system seals used interchangeably or together with seals from PVC manufacturers.



A solution compatible with Classic and Soft Line aluminium window sills.



An option for using the Gemini Insecta system frame mosquito net.



An option to install an independent balustrade with the Gemini VGB extension profile.

# PVC-Aluminium Systems **GEMINI** for windows and doors

The Gemini series products are professional and complete cladding systems for the production of PVC-aluminium windows and doors.

They are supplied to the customers in the form of prefabricated frames, perfectly matched structurally to the solutions provided by the PVC system providers. Aluminium frames form an independent structure in relation to the window and door. This translates into proper and safe operation of the window in changing temperature conditions and easy removal of the cladding in the event of damage. They are mounted using system strikers screwed to the window body.

Gemini cladding has a positive impact on the acoustic comfort of users. They improve the statics of windows and doors, making it possible to build bigger constructions than the PVC standard. They increase protection against the negative effects of UV radiation. They make it possible to match the design of plastic structures with aluminium or wood-aluminium joinery.

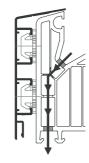
Thanks to its frame-welding capabilities and its curve-bending department, Aluron is able to create cladding to suit unusual window shapes: curved, round, trapezoidal and others.

#### THREE TYPES OF CONSTRUCTION DRAINAGE:

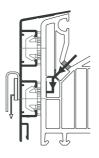
Water drainage - front, PVC under an aluminum cladding (invisible drainage).

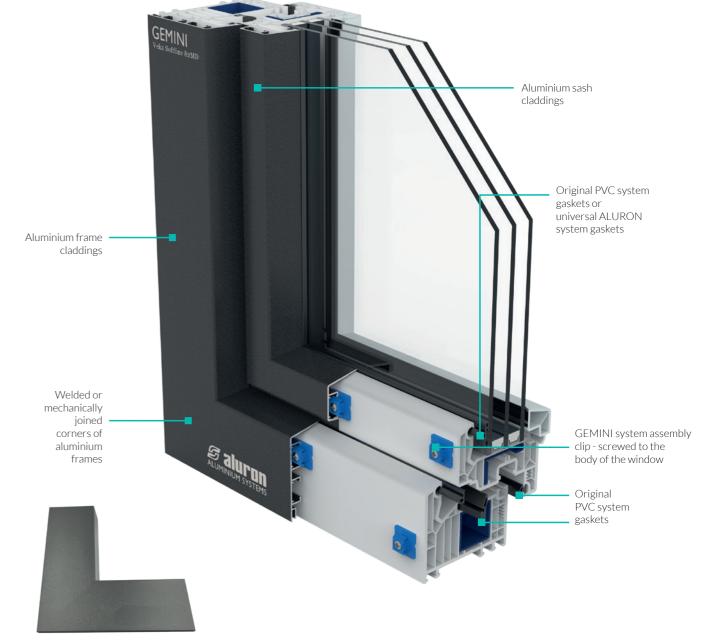


Water drainage - bottom



Water drainage - front + aluminium end plug





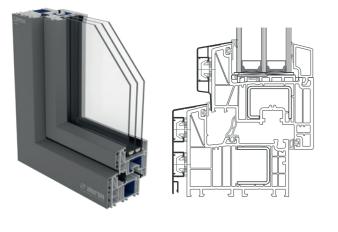
ALUMINIUM FRAMES
Perfectly flat welded corners

118 PVC-Aluminium Systems GEMINI for windows and doors

### **OVERVIEW OF GEMINI PVC-ALUMINIUM SYSTEMS**

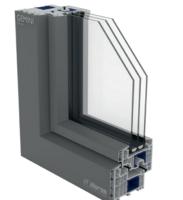
GEMINI bE82 \_\_\_\_\_

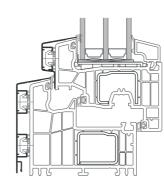
SALAMANDER



GEMINI bE92 \_\_\_\_\_

SALAMANDER



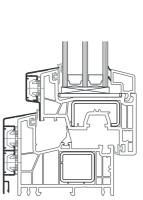


GEMINI gE76 \_ SALAMANDER

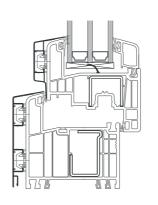


GEMINI 9000 S \_\_\_\_

**GEALAN** 

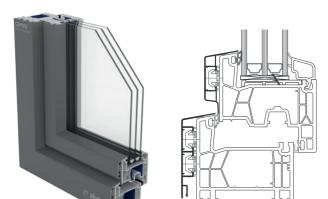






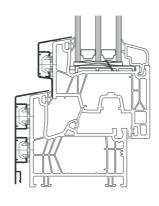
GEMINI 76 AD \_\_\_\_\_\_ GEMINI 76 MD \_

KÖMMERLING

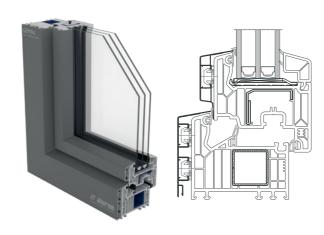


KÖMMERLING



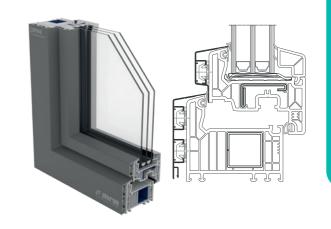


**VEKA** 



GEMINI SOFT LINE 82 MD \_\_\_\_\_ GEMINI SOFT LINE 82 AD \_\_\_\_\_

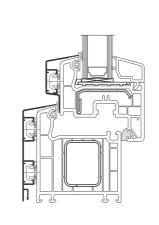
**VEKA** 

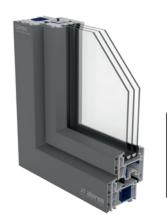


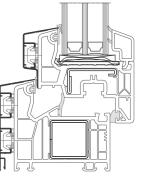
**VEKA** 





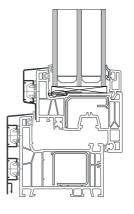




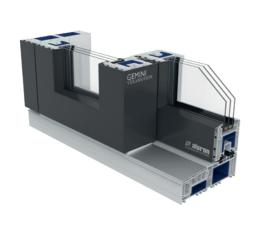


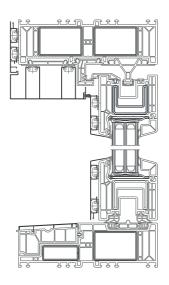
GEMINI NEO \_\_\_\_\_ ALUPLAST

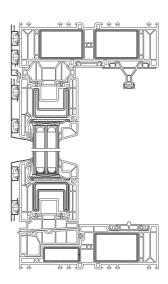




**120** PVC-Aluminium Systems GEMINI for windows and doors www.aluron.pl 121 **VEKA** 

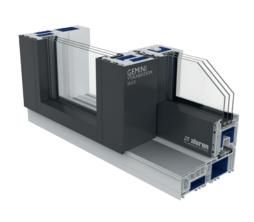


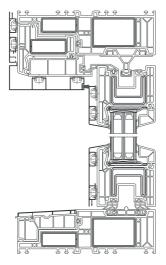


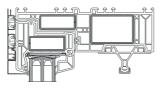


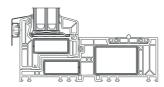
### GEMINI VEKAMOTION 82 MAX \_

**VEKA** 





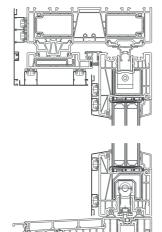


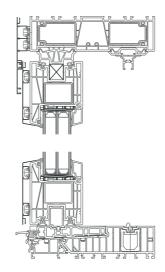


#### GEMINI evolutionDrive \_

SALAMANDER





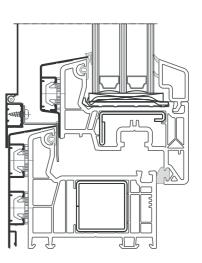


### GEMINI INSECTA

#### Mosquito nets for windows, doors, and sliding doors

The frame mosquito net consists of an aluminium frame, a net with a gasket, a brush gasket, mounting clips, brackets, and hinges. The GEMINI INSECTA mosquito net is offered in a processed form, as a ready-made mosquito net frame, in the ordered dimensions, profile colour, net and the selected equipment.



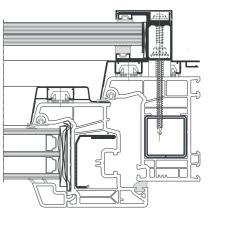


#### GEMINI VGB

#### Window balustrades

Having a protective and decorative function, also known as French balconies. The open balcony space is separated from the outside and protected by a glass barrier and aluminium profiles system. In system VGB, the overhead aluminium profile is screwed to the window structure from the outside. The offer includes prefabricated aluminium profiles, cut to size, with holes and cuttings provided for assembly and a set of necessary accessories.





#### SYSTEMS FOR WOODEN WINDOWS

Aluron's product range includes complete systems for wooden windows such as: drip profiles, glazing beads and aluminium thresholds. All those elements stand out due to their meticulous approach to execution. They are made of high quality materials, providing protection against UV radiation.

#### **DRIP PROFILES**

Gutter drip profiles are available with a thermal insert or fully aluminium in the Soft Line and Classic style. This range includes models for all of the most popular window millings as well as balconies and the Style-type structures



Effectively protect the most vulnerable parts of the sash against UV rays. Visually adjusted to the Soft Line and Classic drip profile line, glazing beads are mounted by means of system clips or sticks.



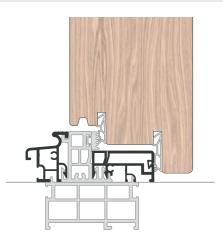
#### **DOOR THRESHOLD**

Offer include door threshold with aluminum insertion and fully aluminium, paired with gaskets for improved insulation of the door. Additionally, offer include large variety of assembly accessories.

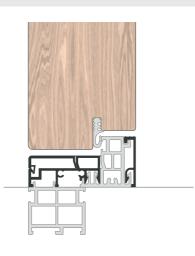


#### ATD 32 - collection of thresholds for wooden doors

ATD 32 type-W Threshold - 32 mm height (10 designes)



ATD 32 type-Z Threshold - 32 mm height (5 designes)





### Aluron Anti-burglary systems

### **AS RC PROTECT**

ALURON anti-burglary structures are windows, doors and curtain walls characterized by a special design, equipped with a specialized protective glass and anti-burglary fittings. Their resistance to intrusion from the outside is determined by the burglary resistance class (RC).

There are three basic classes of burglary protection: RC1, RC2 and RC3 - determining the effectiveness of joinery in anti-burglary protection. RC1 class structures provide a minimum level of protection, which includes situations such as doors and windows being kicked or broken down. The RC2 class protects against burglars using light tools. RC3 class protects against burglary using equipment such as a steel crowbar. RC4 class provides a high level of burglary protection. A partition of this type should resist the actions of an experienced burglar equipped with heavy tools (such as a cutter or a cordless drill) for 10 minutes.

#### WINDOW AND DOOR SYSTEMS

class RC	AS 75 window	AS 75 door	AS 75P	AS 178HS PRO SLIM
class RC2	-	-	-	-
class RC3	-	-	-	-
class RC4		-	-	-

#### FACADE SYSTEMS - CURTAIN WALLS

class RC	AF 50	AF 50S	AF 50EI	ATF 50	ATF 50EI
class RC2	•		-	-	-
class RC3	•	•	•	•	•

124 Systems for wooden windows Aluron anti-burglary systems AS RC PROTECT www.aluron.pl 125

#### **CERTIFICATES**

ALURON conducts its business in accordance with the global standards of management and production, such as ISO 9001 and Qualicoat certification. ALURON systems are subject to research processes based on the latest regulations and standards issued by domestic and foreign certification entities such as ITB, IFT Rosenheim, LTB, and Passivhaus Institut.













IFT Rosenheim - ALU System AS 75





LOUIS ARREST DECEMBER OF THE TIME

fire walls of the AS 75EI system





IFT ROSENHEIM - WOOD-ALU System GEMINI



IFT ROSENHEIM - WOOD-ALU System

GEMINI SI STANDARD, GEMINI SI SKY

Certificate ISO 9001







Certificate ISO 14001



Certificate Qualicoat Class 3/ AAMA 2605



PZH Hygienic Certificate



CERTIFICATE Nº 525/2023 E III ENVIRONMENTAL DECLA

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Environmental Product Declaration Type III (EPD) for ALURON facade systems and ALURON window and door

ITB Construction Product





Certificate ISO (TÜV)



DREWNO-ALU System Gemini Passiv ALU System AS 110 Passiv



EPH DRESDEN - WOOD--ALU System GEMINI Fall protection safety, Category A



DGNB Membership

### **ALURON COLOR COLLECTION 2**

AR - MAT Powder coating RAL MAT



AR-FS Powder coating RALFS



AM - FS Powder coating Metallic FS



Qualicoat Class 2

ANODIZED & EFFECT COLORS

AA - C anode colours: C0, C33, C34 AA - R imitation anode - powder coating



AD - MAT Woodgrain decors MAT



QUALICOAT









#### CERTIFIED QUALITY OF POWDER COATING

resistance to temperature fluctuations, UV radiation or mechanical damage. We offer powder coating in QUAL-ICOAT quality and optionally QUALICOAT SEASIDE for additional corrosion protection.

Powder-coated surfaces are distinguished by their high Surfaces imitating the structure of wood without the use of traditional film (veneer) use modern painting technology based on the phenomenon of sublimation: DECORAL heat transfer. Aluminium profiles are also available in anodised finish.





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