

aliplast
aluminium systems

ALUMINIUM SYSTEMS APPLIED
IN THE BUILDING INDUSTRIES

ALUMINIUM SYSTEMS APPLIED IN THE BUILDING INDUSTRIES **aliplast**

Aliplast Sp. z o.o.

ul. Władysław Morciszka 3
20-276 Lublin

T. +48 81 745 50 30

F. +48 81 745 50 31

E. biuro@aliplast.pl

www.aliplast.pl

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ABOUT COMPANY

Aliplast is a leading manufacturer of aluminium systems for the construction industry on the European market. In its business, the company focuses on design and distribution of architectural profile systems (together with accessories) and provision of powder coating and arc bending services.

Aliplast was established in 2002 in partnership with Aliplast Group based in Belgium, which has been manufacturing aluminium systems since 1984. As a result of the established company, it was possible to create a distribution network and a production line of Aliplast aluminium systems in Poland.

Since the beginning, Aliplast Poland has been relying on expansive development, with the highest quality of the offered products and development of new solutions for aluminium profile systems. Sales dynamics, an ever-expanding list of costumers from Poland and Europe, innovation and high quality of the offered products – all these have been recognised on the market. Aliplast has received many honourable mentions and awards granted by industry and business organisations.

Offer of **ALIPLAST** aluminium systems:

- ▶ windows
- ▶ doors
- ▶ sliding
- ▶ folding
- ▶ curtain walls
- ▶ wintergarden systems

alip
aluminium



CORIALIS

core innovative aluminium integrated solutions

Aliplast Sp. z o.o. (segment of aluminium systems) and **Aliplast Aluminium Extrusion** (aluminium profile pressing plant) are included the international group – **CORIALIS** – supplying comprehensive solutions as regards design engineering, manufacturing, fabrication and decoration of aluminium profiles.

CORIALIS Core Innovative Aluminium Integrated Solutions is an international group gathering the following companies: Aliplast Aluminium Systems Belgium, Profils Systemes France, Smart System UK, Aliplast Aluminium Systems and Aliplast Extrusion Poland, JMD Systems and Aliplast China.

Aliplast
aluminium systems

CERTIFICATION

Aluminium systems offered by Aliplast both in Poland and countries, which are included in the distribution, are accompanied by documents of approval for use in the construction industry. Technical approvals, hygiene certificates, ITT testing confirm high parameters of Aliplast products in accordance with European standards.

SOFTWARE

ALICAD is a software used to create commercial offers for customers, generate production lists, profile cutting/ shape/ dimension/ infill type specifications and material orders. The software is constantly being developed and supplemented with new technical solutions added to Aliplast offer.

TECHNICAL SUPPORT

Practical and theoretical training covering design and construction aspects associated with Aliplast aluminium systems, software training, product training, practical training is provided at the R&D Training Centre at Aliplast.

The training centre is equipped with a KS Schulten test chamber which is used to verify gap and strength parameters of window and door joinery as well as lightweight curtain walls as regards air infiltration, water tightness and wind load resistance. The test chamber is also referred to as AWW chamber (Air - Wind - Water). The test wall is used for products with the maximum dimensions of 6 m x 6 m. The AWW chamber is controlled via KS Software with programming and sequencing capability relating to individual test cycles in accordance with European standards for window-door and facade structures. Our own testing laboratory offers us the possibility of controlling and supervising all processes affecting the quality of aluminium systems to be designed. Aliplast has concluded an agreement with IFT Rosenheim testing laboratory in order to perform tests followed by certificates issued by IFT Rosenheim.

DEVELOPMENT

Close cooperation between development departments of the international group of Corialis ensures continuous exchange of experience, new improved structural solutions and continuous extension of the offer of Aliplast aluminium systems.



aliplast
aluminium systems

POWDER COATING

ALIPLAST has at its disposal one of the most technologically advanced vertical powder paint shops among those in Poland, two horizontal paint lines and an accessory line. As modern paint coating application methods and technologically advanced machine fleet are used, products that comply with quality standards and highest customer requirements can be obtained. Our own laboratory ensures current control of the aluminium surface preparation process before painting. Our experienced staff constantly monitors proper course of production process, in compliance with relevant European standards: Qualicoat (licence number: 1518) and QUALIDECO (licence number: PL-0001).

▶ VERTICAL PAINTING LINE

- 200 mm x 100 mm x 7500 mm,
- fully automated,
- production line output: 600-800 m² per hour
- modern and environmentally friendly

▶ HORIZONTAL PAINTING LINE (2)

- modern and environmentally friendly,
- fully automated,
- production line output: 360 m² per hour.

▶ WOOD COLOUR

- Aliplast Wood Colour Effect (automatic horizontal line for aluminium decoration)

▶ MANUAL PAINTING LINE

- horizontal, manual painting line
- dedicated to accessory details both dimensionally and technology

ADDITIONAL SERVICES

Aliplast is a company that provides comprehensive solutions: from the production of aluminium profiles to mechanical processing and surface treatment.

Aliplast offer of mechanical processing includes: CUTTING, DIE SHEARING, DRILLING, MILLING and BENDING OF PROFILES. While customising profiles to satisfy customers' individual needs, Aliplast Extrusion relies on specialised and state-of-the-art process lines. While processing orders, the company pursues the best standards of management systems. Specialised skills, a team of experienced staff and an individual approach to the customer make it possible for the company to be a trustworthy partner supporting investment projects.

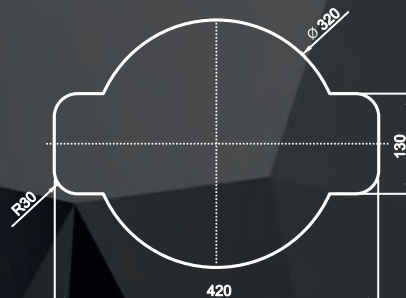
PRESS CAPABILITIES

➔ PRESS 9"

Alloys:

EN AW 1050, 6060, 6063, 6005A, 6082, 6101

- pressure: 2800 T
- maximum profile length: 14 000 mm
- maximum width of profile: 400 mm
- minimum profile weight: 0,90 kg

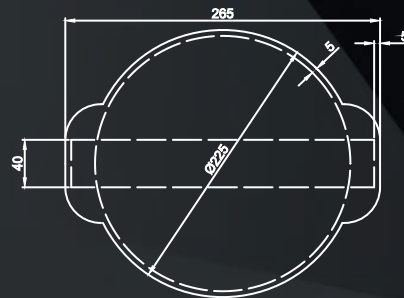


➔ PRESS 8"

Alloys:

EN AW 1050, 6060, 6063, 6005A

- pressure: 2200 T
- maximum profile length: 14 000 mm
- maximum width of profile: 250 mm
- minimum profile weight: 0,20 kg



DESIGNING | EXTRUSION | FABRICATION | DISTRIBUTION | POWDER COATING

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ALUMINIUM SYSTEMS & PROFILES
APPLIED IN THE BUILDING INDUSTRIES

WINDOW AND DOOR SYSTEMS

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aluminium systems

SP

- ▶ SP i
- ▶ SP i+
- ▶ SP SU
- ▶ SP OUT
- ▶ SP 800 i+



WINDOW AND DOOR SYSTEMS

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IP

- ▶ IP i
- ▶ IP i+
- ▶ IP SU
- ▶ IP OUT
- ▶ IP 800 i+

IMPERIAL

Three-chamber window and door system with thermal insulation, allowing construction of multiple types of windows and doors, depending on application and detailed requirements concerning functionality, thermal insulation and appearance.

Imperial system offers a wide range of window designs: turn and tilt type, turn type, tilt type, tilt and slide type, rotate type with a vertical and horizontal axle of rotation, and doors (opening outwards and inwards, single or double-leaf, glazed, swing doors and sliding doors).

Large number of profiles in the system allows obtaining desired appearance and structural strength.

The profiles can be bent, i.e. window frames, wings and glazing beads, which allows all kinds of arches and similar designs (detailed specification of profiles and detailed technical parameters of profile bending process are available in the customer area of the website www.aliplast.pl)

Imperial window system meets the requirements of burglary resistance class RC 3 according to norm PN-EN 1627.

There is possibility of use Flyscreen system (Flyscreen – fly screens are a practical and an extremely functional protection against insects).

Wide range of colours - selection between RAL palette (Qualicoat 1518), wood patterns Aliplast Wood Colour Effect (Qualideco PL-0001), anodized finish, also in bi-colour.

Imperial system, including subsystems (Imperial OUT - outward opening doors, IP SU - hidden sash), offer a wide range of possibilities in external design. Imperial system also provides profiles allowing design of external frames with either industrial or restorative nature.

ALUMINIUM SYSTEMS APPLIED IN THE BUILDING INDUSTRY
WINDOW & DOOR SYSTEMS



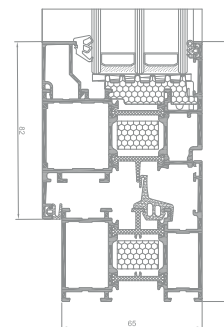
IP i, IP i+

The system is designated for design of windows and doors with high thermal insulation parameters. Available system variants:

- IP i
- IP i+

Improved thermal insulation was obtained by applying special thermal inserts installed between thermal separators and around the glass pane, improving thermal insulation factor coefficients of the profile 0,2-0,5 W/m²K.

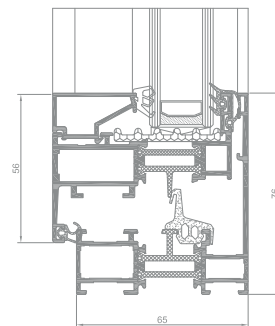
Design of systems IP i, IP i+ is based on proven, extensive and recognized base system Imperial.



IP i+ window section

IP SU

System with thermal insulation designated for designing windows with hidden sash, invisible from the outside. Specially designed shape of the frame hides the full height of sash profile. Imperial SU system is the system preferred by designers, as it allows "hiding" windows in aluminium and glass structure.

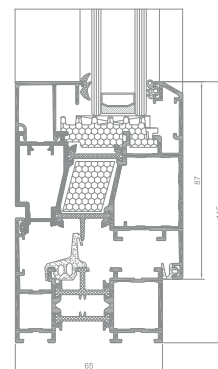


IP SU i window section

IP OUT (Imperial Outward)

Window system which allows designing windows tilting and opening outwards. Imperial OUT features faced internal surface of the frame and the wing. Such windows allow full use of the space inside the building. Available system variants:

- IP-OUT i variant with additional thermal insulation, at the profile-glass interface.
- IP-OUT i+ variant with additional thermal insulation in the space between thermal separators.



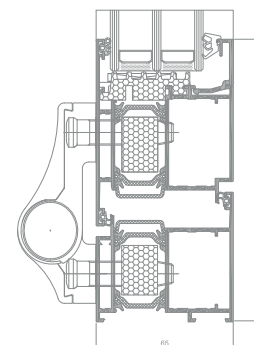
IP OUT i+ window section

IP 800

Three-chamber system designated for designing door with improved thermal insulation power. Available system variants:

- IP 800 i
- IP 800 i+

Improved thermal insulation was obtained by applying special thermal inserts installed between thermal separators and around the glass pane, improving thermal insulation factor coefficients of the profile 0,2-0,5 W/m²K.



IP 800 i+ door section

IMPERIAL

IP i, IP i+, IP SU, IP OUT, IP 800 i+

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH OF FRAME	DEAP OF LEAF	GLAZING RANGE	TYPE OF WINDOWS	TYPE OF DOORS
IP Imperial window	aluminium / polyamid	65 mm	74 mm	4-51 mm	single and double doors, outside opening, inside opening	
IP i+ Imperial i+ window	aluminium / polyamid	65 mm	74 mm	4-51 mm	single and double doors, outside opening, inside opening	
IP OUT Imperial Outward window	aluminium / polyamid	65 mm	74 mm	max 51 mm	outward opening	
IP SU Imperial SU window	aluminium / polyamid	65 mm	68 mm	4-41 mm	hidden sash	
IP 800 Imperial 800 door	aluminium / polyamid	65 mm	65 mm	14-51 mm		single and double doors, outside opening, inside opening, panic door
IP 800 i+ Imperial seria 800 i+ door	aluminium / polyamid	65 mm	65 mm	14-51 mm		single and double doors, outside opening, inside opening, panic door

PERFORMANCE

SYSTEM	THERMAL INSULATION Uf *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
IP	Uf from 1,57 W/m ² K	Class 4; EN 12207	Class C4; EN 12210	Class E1350; EN 12208
IP i+	Uf from 1,28 W/m ² K	Class 4; EN 12207	Class C4; EN 12210	Class E1350; EN 12208
IP OUT	Uf from 1,85 W/m ² K	Class 4; EN 12207	Class C5/B5; EN 12210	Class E900; EN 12208
IP OUT i+	Uf from 1,68 W/m ² K	Class 4; EN 12207	Class C5/B5; EN 12210	Class E900; EN 12208
IP SU	Uf from 1,63 W/m ² K	Class 4; EN 12207	Class C5/B5; EN 12210	Class E1200; EN 12208
IP SU i	Uf from 1,27 W/m ² K	Class 4; EN 12207	Class C5/B5; EN 12210	Class E1200; EN 12208
IP 800	Uf from 1,84 W/m ² K	Class 4; EN 12207	Class CE 2400; EN 12210	Class 8A; EN 12208
IP 800 i+	Uf from 1,67 W/m ² K	Class 4; EN 12207	Class CE 2400; EN 12210	Class 8A; EN 12208

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

- The Uf-value measures the heat flow. The lower the Uf-value, the better the thermal insulation of the frame.
- The air tightness test measures the volume of air that would pass through a closed window at a certain air pressure.
- The wind load resistance is a measure of the profile's structural strength and is tested by applying increasing levels of air pressure to simulate the wind force. There are up to five levels of wind resistance (1 to 5) and three deflection classes (A, B, C). The higher the number, the better the performance.
- The water tightness testing involves applying a uniform water spray at increasing air pressure until water penetrates the window.

IP i+

IMPERIAL i+



Window and door systems with thermal insulation. The system is designed for use in residential and public buildings, and also allows designing modern window solutions in multiple variants.

IP i+

The system is designed for windows, doors and shop windows with high thermal insulation parameters.

A high thermal insulation power was achieved by applying special thermal inserts between thermal separators and around the glass pane.
Available options: IP, IP i, IP i+.

Large number of shapes in the system guarantees the obtained desired appearance and structural strength.

The option of installing windows in facade systems.

Glazing strips available in a rectangular and circular variant.

The shapes of profiles suitable for the installation of various peripheral hardware, including hidden hinges and PCV hardware.

A broad range of glazing allows using all types of single and double cavity, acoustic and anti-burglary glass panes.

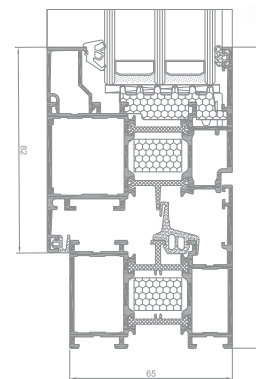
Profile drainage in two variants: traditional and hidden.

There is possibility of use Flyscreen system (Flyscreen – fly screens are a practical and an extremely functional protection against insects).

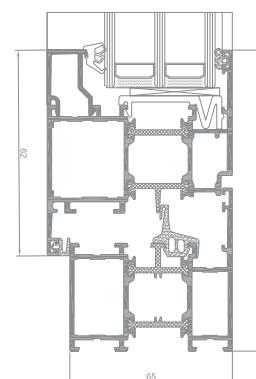
The option of bending profiles (detailed specification of profiles and detailed technical parameters of profile bending process are available in the customer area of the website www.aliplast.pl).

The system is designed for use in residential and public buildings, and also allows designing modern window solutions in multiple variants.

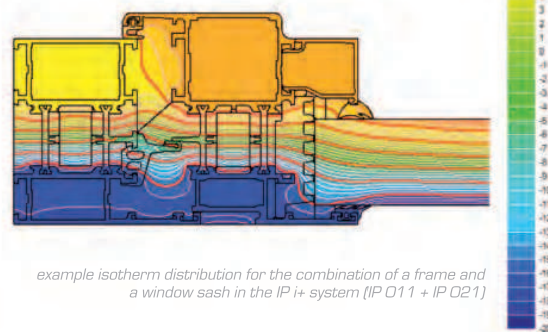
A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.



IP i+ window section



IP window section



example isotherm distribution for the combination of a frame and a window sash in the IP i+ system (IP O1 1 + IP O2 1)

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH OF FRAME	DEPTH OF LEAF	GLAZING RANGE	TYPE OF WINDOWS	TYPE OF DOORS
IP	aluminium / polyamid	65 mm	74 mm	4-51 mm	single and double doors, outside opening, inside opening	_____
IP i+	aluminium / polyamid	65 mm	74 mm	4-51 mm	single and double doors, outside opening, inside opening	_____

PERFORMANCE

SYSTEM	THERMAL INSULATION U_f *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
IP	U_f from 1,57 W/m ² K	Class 4; EN 12207	Class C4; EN 12210	Class E1350; EN 12208
IP i+	U_f from 1,28 W/m ² K	Class 4; EN 12207	Class C4; EN 12210	Class E1350; EN 12208

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

IP OUT

IMPERIAL OUT



The system Superial OUT is designed for tilt-out and turn-out windows.

IP OUT

Window system designed for designing tilt out and turn out windows.

System Imperial OUT is fully compatible with window system Imperial (they share system elements: connectors, gaskets, glazing strips).

System Imperial OUT features faced internal surface of the frame and the sash.

Turn out windows can be fitted with two types of hinges: rotating hinges or scissor hinge; window hardware used allows tilting the top or the bottom of the window outwards; option of turn out window with the limit stop.

Available option of integrating windows with walls by using reversing profile.

Option of bending profiles (detailed specification of profiles and detailed technical parameters of profile bending process are available in the customer area of the website www.aliplast.pl).

Maximum dimensions and weights of structures in Imperial OUT system:

- *tilt out windows* - minimum width and height of sash 500 mm, maximum width and height of sash 2000 mm, maximum weight of sash 100 kg for tilt out windows
- *turn out windows* - minimum width and height of sash 500 mm, maximum width of sash 1500 mm, height of sash 3000 mm, maximum weight of sash 120 kg for turn out windows

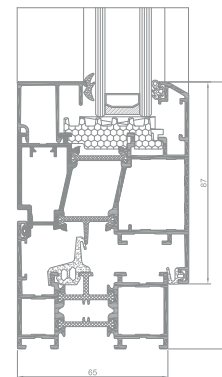
System IP OUT is available in the variant with improved thermal insulation power. Available options:

- *IP OUT i* with additional thermal insulation, at the profile-glass interface;
- *IP OUT i+* with additional thermal insulation between thermal spacers.

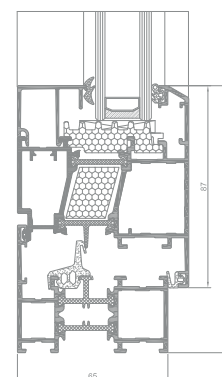
This system is very popular in Nordic countries and on British Isles. Perfectly matching old and stylized manor houses, wood cabins or simple Scandinavian type houses. Shutters are often used with such windows.

There is possibility of use Flyscreen system (Flyscreen – fly screens are a practical and an extremely functional protection against insects).

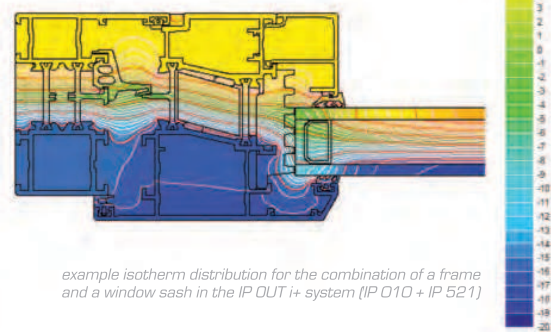
Broad range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, anodized, bi-colour.



IP OUT i window section



IP OUT i+ window section



example isotherm distribution for the combination of a frame and a window sash in the IP OUT i+ system (IP 010 + IP 521)

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH OF FRAME	DEPTH OF LEAF	GLAZING RANGE	TYPE OF WINDOWS	TYPE OF DOORS
IP OUT	aluminium / polyamid	65 mm	74 mm	max 61 mm	outward opening	_____
IP OUT i+	aluminium / polyamid	65 mm	74 mm	max 61 mm	outward opening	_____

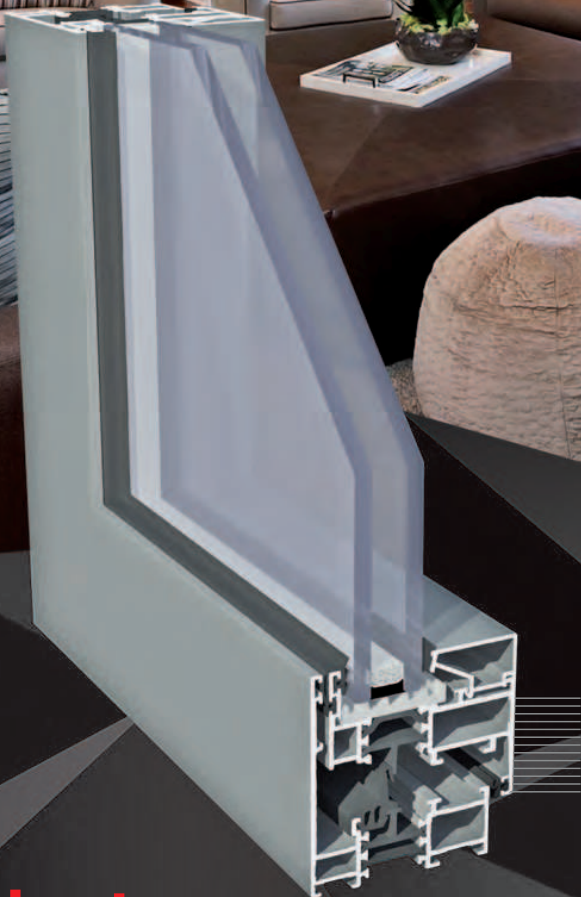
PERFORMANCE

SYSTEM	THERMAL INSULATION Uf *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
IP OUT	Uf from 1,85 W/m ² K	Class 4; EN 12207	Class C5/B5; EN 12210	Class E900; EN 12208
IP OUT i+	Uf from 1,68 W/m ² K	Class 4; EN 12207	Class C5/B5; EN 12210	Class E900; EN 12208

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

IP SU

IMPERIAL SU



A three-chamber window system with thermal insulation designed for windows with a hidden sash, invisible from the outside.

IP SU

A door system designated for designing doors with high thermal insulation parameters.

The system is compatible with Imperial system - thanks to adaptive profiles designs in series IP 800 can be integrated with Imperial shop windows.

The system features very good anti-burglary properties (the lock is situated far from the outer side).

Profile drainage in two variants: traditional and hidden.

The option of bending profiles (detailed specification of profiles and detailed technical parameters of profile bending process are available in the customer area of the website www.aliplast.pl).

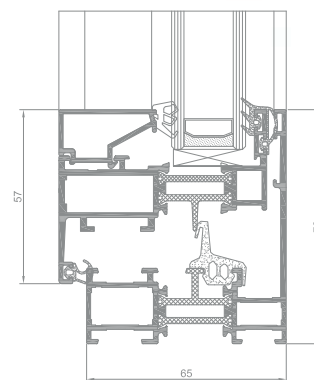
The hidden sash system is the system preferred by designers, as it allows "hiding" windows in aluminium and glass structure. Thanks to application of this solution opened and fixed window segments look identical from the outside.

The system IP SU is also available in the variant with improved thermal insulation power:

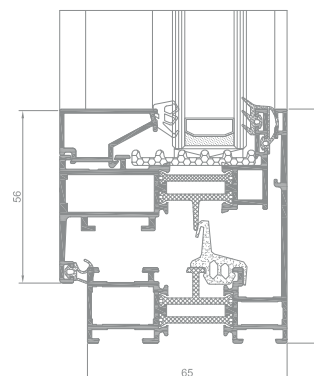
- *IP SU i* - applying thermal insulation under the glass panel.

There is possibility of use Flyscreen system (Flyscreen – fly screens are a practical and an extremely functional protection against insects).

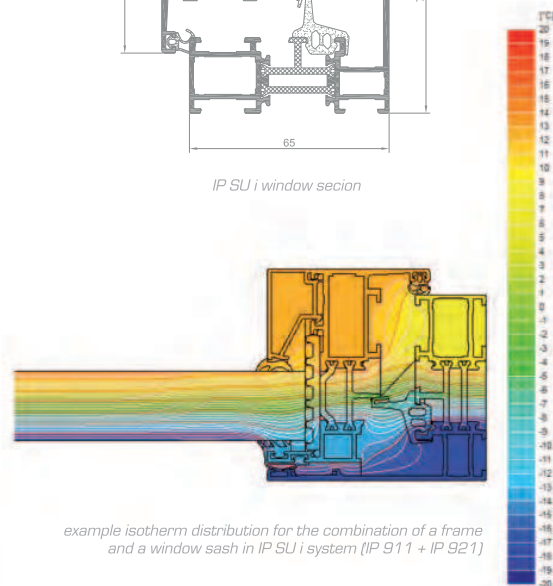
A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.



IP SU window section



IP SU i window section



example isotherm distribution for the combination of a frame and a window sash in IP SU i system (IP 911 + IP 921)

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH OF FRAME	DEPTH OF LEAF	GLAZING RANGE	TYPE OF WINDOWS	TYPE OF DOORS
IP SU	aluminium / polyamid	65 mm	68 mm	4-41 mm	hidden sash	—
IP SU i	aluminium / polyamid	65 mm	68 mm	4-41 mm	hidden sash	—

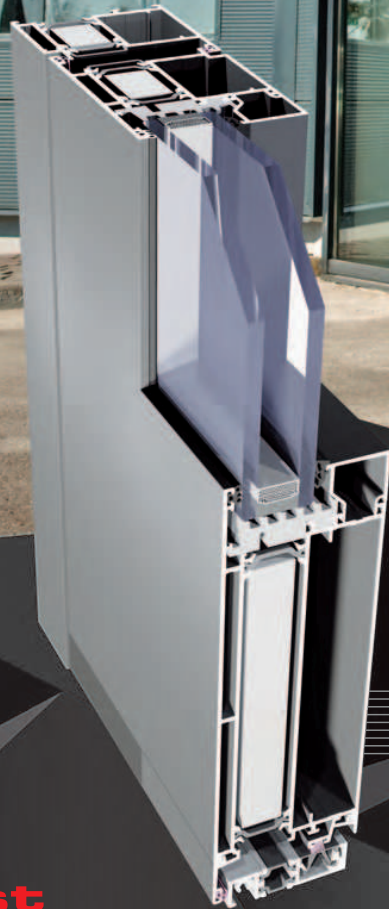
PERFORMANCE

SYSTEM	THERMAL INSULATION Uf *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
IP SU	Uf from 1,63 W/m ² K	Class 4; EN 12207	Class C5/B5; EN 12210	Class E1200; EN 12208
IP SU i	Uf from 1,27 W/m ² K	Class 4; EN 12207	Class C5/B5; EN 12210	Class E1200; EN 12208

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

IP 800 i+

IMPERIAL 800 i+



A three chamber door system designed for doors with high thermal insulation parameters.

IP 800 i+

A door system designated for designing doors with high thermal insulation parameters.

The system is compatible with Imperial system - thanks to adaptive profiles designs in series IP 800 can be integrated with Imperial shop windows.

The system features very good anti-burglary properties (the lock is situated far from the outer side).

A thermal insulation threshold is used, which can be disassembled following door installation in the frame.

The system offers solutions preventing catching of fingers (antyyfinger).

The option of bending profiles (detailed specification of profiles and detailed technical parameters of a profile bending process are available in the customer area of the website www.aliplast.pl).

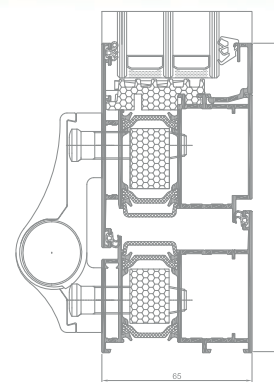
The system IP 800 is also available in the variant with improved thermal insulation power:

- IP 800 i
- IP 800 i+

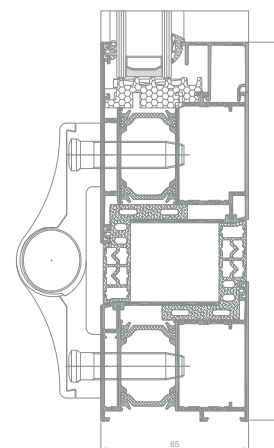
which was achieved by applying special thermal inserts slide between thermal separators and around the glass panel. Such a solution improves the insulating power of the profile by 0,2 – 0,5 W/m²K.

There is possibility of use Flyscreen system (Flyscreen – fly screens are a practical and an extremely functional protection against insects).

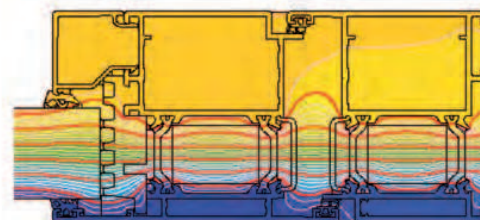
A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.



IP 800 door section



IP 800 i antyfinger solutions door section



example isotherm distribution for the combination of a frame and a window sash in IP 800 i + system (IP 814 + IP 825)

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH OF FRAME	DEPTH OF LEAF	GLAZING RANGE	TYPE OF WINDOWS	TYPE OF DOORS
IP 800	aluminium / polyamid	65 mm	65 mm	14-59 mm	—	single and double doors, outside opening, inside opening, panic doors
IP 800 i+	aluminium / polyamid	65 mm	65 mm	14-59 mm	—	single and double doors, outside opening, inside opening, panic doors

PERFORMANCE

SYSTEM	THERMAL INSULATION Uf *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
IP 800	Uf from 1,84 W/m ² K	Class 4; EN 12207	Class CE 2400; EN 12210	Class 8A; EN 12208
IP 800 i+	Uf from 1,67 W/m ² K	Class 4; EN 12207	Class CE 2400; EN 12210	Class 8A; EN 12208

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

CURTAIN WALL

aliplast
aluminium systems

MC

- ▶ MC WALL
- ▶ MC PASSIVE
- ▶ MC PASSIVE+
- ▶ MC GLASS



MC WALL

System designed for construction of modern curtain walls with simple and complex shapes. Technical solutions used by the system also allow construction of glazed roofs, skylights and glazed spaces. The base version of Aliplast's flagship curtain wall system offers great opportunities to meet individual project requirements. Due to large selection of profiles and accessories, the specifiers can bring their most bold architectural concepts into reality.

A wide range of solutions used by the system (MC WALL, MC Passive, MC Passive +, MC Glass) allows free shaping of building facade. A wide range of available covers strips allows modern and custom design solutions of facades.

System MC WALL offers many possibilities of development. The system offers designs opening in the facade: parallel windows (MC PW) and roof windows (MC RW).

Angle joints allow free shaping of aluminium curtain walls.

Large extent of glazing, available insulators and accessories allow obtaining high thermal insulation power of facades.

A wide range of available mullions and transoms adjusting static requirements.

A lot of masking strips allows obtaining diverse visual effects for curtain walls.

The option of bending profiles (detailed specification of profiles and detailed technical parameters of profile bending process are available in the customer area of the website www.aliplast.pl).

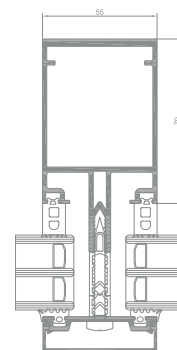
A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.

ALUMINIUM SYSTEMS APPLIED IN THE BUILDING INDUSTRY
CURTAIN WALL



MC WALL

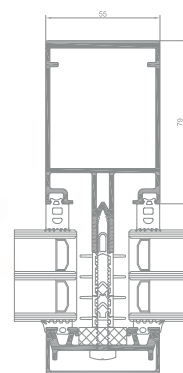
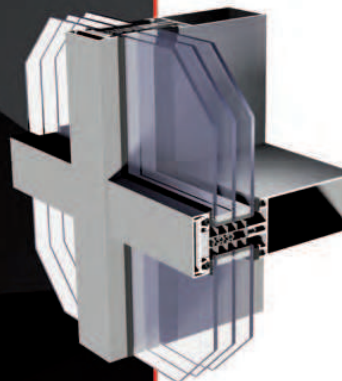
System designated for construction of modern curtain walls with simple and complex shapes. The system serves as the base for facade structures: MC Passive, MC Passive +, MC Glass and fire-safety solution MC Fire, MC Glass Fire.



MC WALL mullion cross section

MC Passive

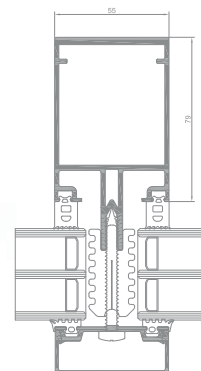
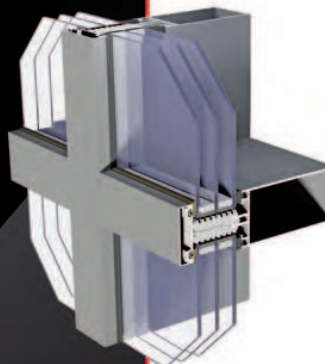
MC Passive facade system designed for designing facade systems with improved thermal insulation power.



MC Passive mullion cross section

MC Passive +

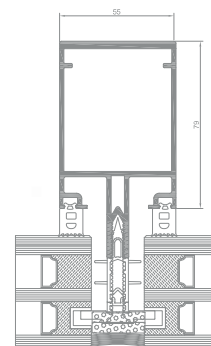
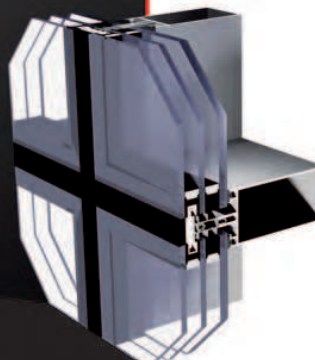
MC Passive + is the system with improved thermal insulation power. Special new XPE insulator is used in thermal insulation zone, improving heat-transfer coefficient U_f from $0,61 \text{ W/m}^2\text{K}$.



MC Passive + mullion cross section

MC Glass

MC Glass is the system of semi-structural facade. Used to design facade structures forming flat surface without visible aluminium profiles.



MC Glass mullion cross section

MC WALL

MC WALL, MC PASSIVE, MC PASSIVE+, MC GLASS

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH MULLION	DEPTH TRANSOM	GLAZING RANGE	MULLION RIGIDITY	TRANSOM RIGIDITY
MC WALL	aluminium	10-326 mm	from 10-294 mm	from 4-59 mm	from 2,5-4092 cm ⁴ *	from 0,9-1831,1*
MC PASSIVE	aluminium	10-326 mm	from 10-294 mm	from 4-59 mm	from 2,5-4092 cm ⁴ *	from 0,9-1831,1*
MC PASSIVE +	aluminium	10-326 mm	from 10-294 mm	from 4-59 mm	from 2,5-4092 cm ⁴ *	from 0,9-1831,1*
MC GLASS	aluminium	10-326 mm	from 10-294 mm	from 4-59 mm	from 2,5-4092 cm ⁴ *	from 0,9-1831,1*

* There is a possibility to use additional reinforcements.

PERFORMANCE

SYSTEM	THERMAL INSULATION Uf *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
MC WALL	Uf from 0,84 W/m ² K	Class AE1300; EN 12152	2600 Pa ± 3900 Pa; EN 13116:2004	Class RE1500; EN 12154
MC PASSIVE	Uf from 0,79 W/m ² K	Class AE1300; EN 12152	2600 Pa ± 3900 Pa; EN 13116:2004	Class RE1500; EN 12154
MC PASSIVE +	Uf from 0,61 W/m ² K	Class AE1300; EN 12152	2600 Pa ± 3900 Pa; EN 13116:2004	Class RE1500; EN 12154
MC GLASS	Uf from 0,66 W/m ² K	Class AE1300; EN 12152	2000 Pa ± 3000 Pa; EN 13116:2004	Class RE1800; EN 12154

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

- The Uf-value measures the heat flow. The lower the Uf-value, the better the thermal insulation of the frame.
- The air tightness test measures the volume of air that would pass through a closed window at a certain air pressure.
- The wind load resistance is a measure of the profile's structural strength and is tested by applying increasing levels of air pressure to simulate the wind force. There are up to five levels of wind resistance (1 to 5) and three deflection classes (A, B, C). The higher the number, the better the performance.
- The water tightness testing involves applying a uniform water spray at increasing air pressure until water penetrates the window.

MC WALL

MC WALL



A system used to design modern curtain walls. The system is a basis for facade structures: MC PASSIVE, MC PASSIVE+, MC GLASS and MC FIRE, MC GLASS FIRE (a solution for fire protection). The MC WALL system offers many possibilities of creating the installation. The system offers structures to be opened on the facade: parallel windows (MC PW) and roof windows (MC RW).

MC WALL

A system used to design modern curtain walls whose shapes are simple and complex.

Mullion-transom visual width: 55 mm.

The curtain wall in the MC Wall system consists of mullions and transoms fastened by stainless steel bolts. There are 2 x \varnothing 6 stainless steel fasteners per joint; the fasteners ensure very high load capacity of the mullion-transom connection, both in the wind pressure plane and the infill load plane. The solution does not prevent using traditional transom brackets or fastening transoms only with screws attached from the face side.

A wide range of mullions and transoms suitable for static requirements.

The insulators can be built accordingly to the infill thickness.

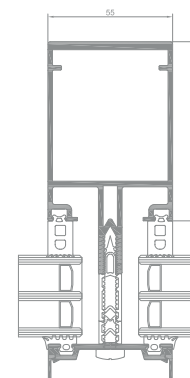
Application of vapour-proof and breather membranes on the perimeter of the facade is easier, in accordance with new guidelines for installation of aluminium structures.

A wide range of decorative cover caps makes it possible to obtain varied visual effects on the curtain wall.

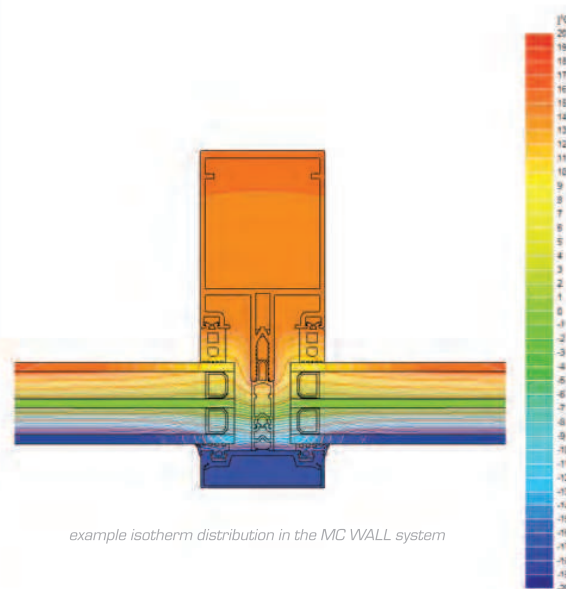
The system is a basis for facade structures: MC PASSIVE, MC PASSIVE+, MC GLASS and MC FIRE.

The option of bending profiles (detailed specification of profiles and detailed technical parameters of profile bending process are available in the customer area of the website www.aliplast.pl).

A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.



MC WALL mullion cross section



example isotherm distribution in the MC WALL system

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH MULLION	DEPTH TRANSOM	GLAZING RANGE	MULLIONS RIGIDITY	TRANSOM RIGIDITY
MC WALL	aluminium	10-326 mm /	10-294 mm /	4-59 mm	from 2,5-4092 cm4*	from 0,9-1831,1*

* There is a possibility to use additional reinforcements.

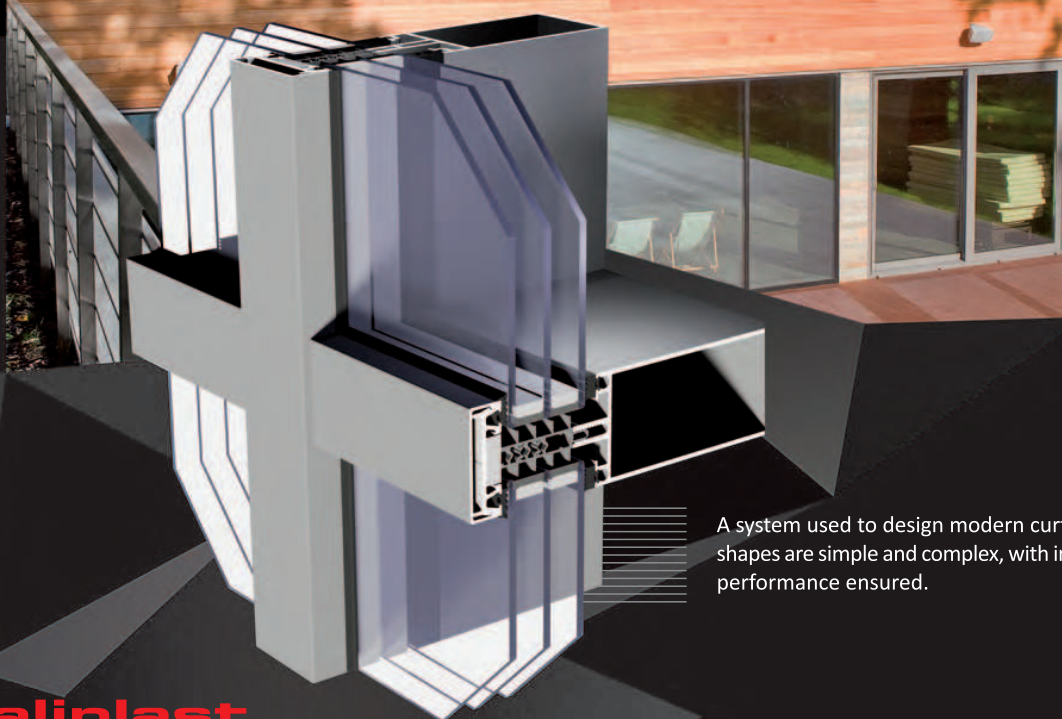
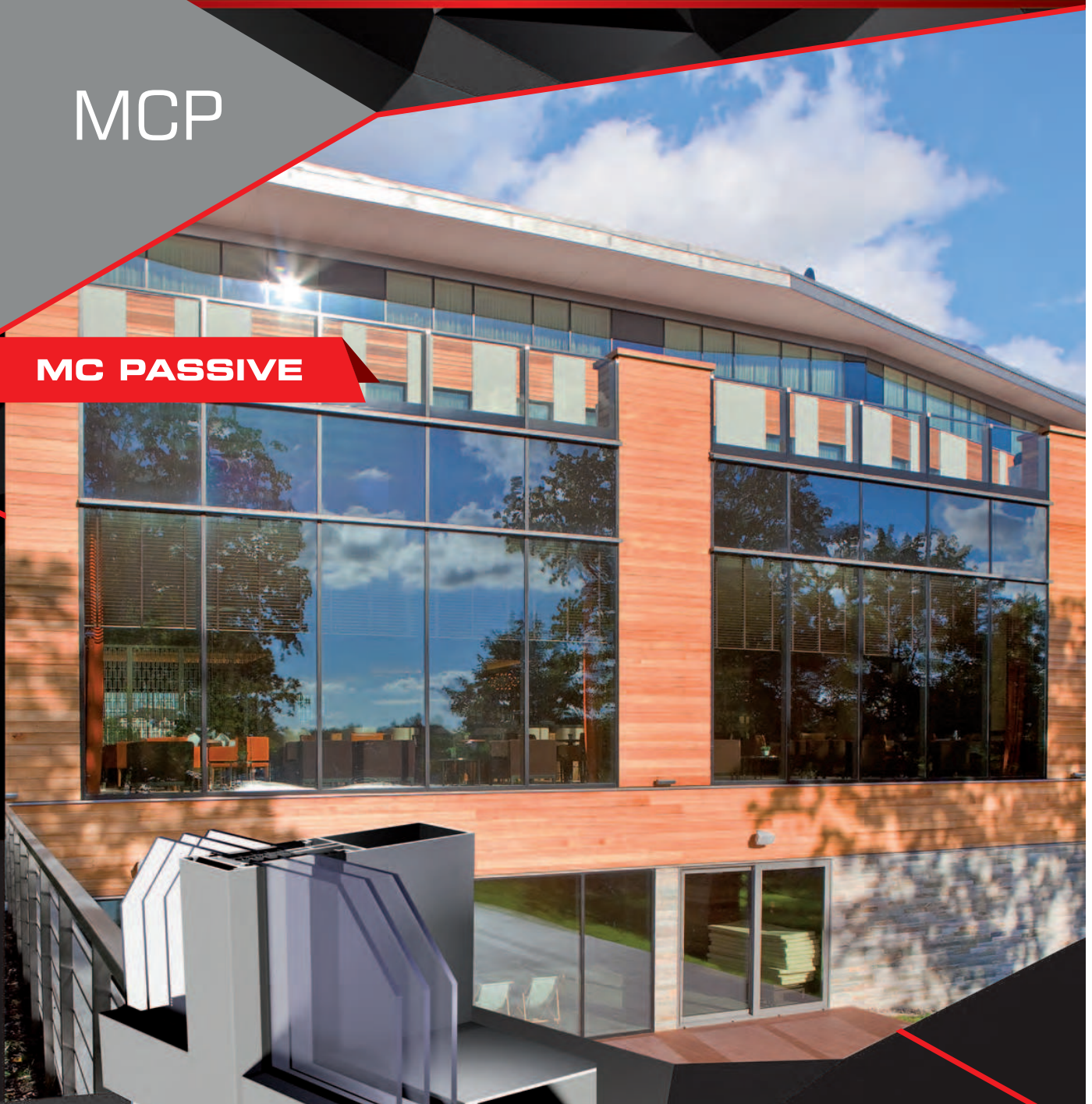
PERFORMANCE

SYSTEM	THERMAL INSULATION U_f *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
MC WALL	U_f from 0,84 W/m ² K	Class AE 1300; EN 12152	2600 Pa \pm 3900 Pa EN 13116:2004	Class RE1500; EN 12154

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

MCP

MC PASSIVE



A system used to design modern curtain walls whose shapes are simple and complex, with improved thermal performance ensured.

MCP

A system used to design modern curtain walls whose shapes are simple and complex, with improved thermal performance ensured.

Mullion-transom visual width: 55 mm.

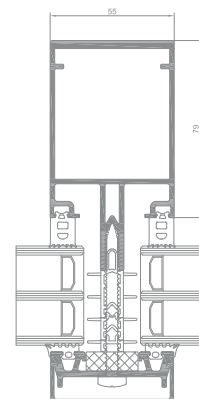
The MC PASSIVE system wall is designed as a mullion-transom frame made of aluminium sections. Its excellent thermal performance is obtained due to a special insulator installed in the space of the holding strip or spacer, which is also located under set screws used to fasten the holding strip. Additionally, thermal properties are improved. Thermal separators are tied to mullion and transom sections, made of hard PVC fitted with additional horizontal "mortises" made of soft PVC.

A wide range of mullions and transoms suitable for static requirements.

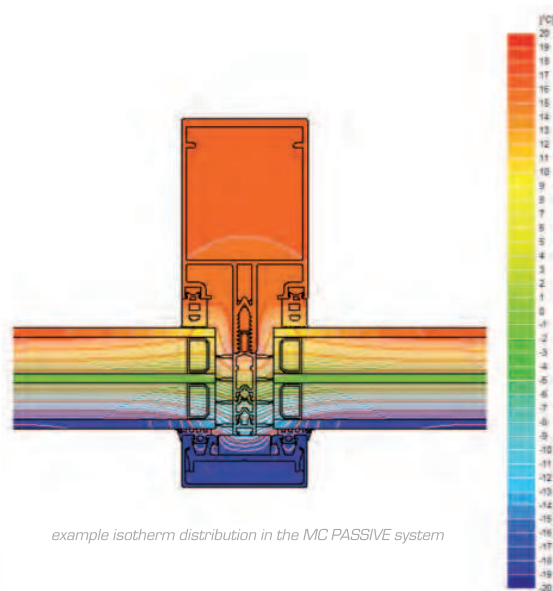
A wide range of decorative cover caps makes it possible to obtain a modern and individual design of the facade.

The option of bending profiles (detailed specification of profiles and detailed technical parameters of profile bending process are available in the customer area of the website www.aliplast.pl).

A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.



MC PASSIVE mullion cross section



example isotherm distribution in the MC PASSIVE system

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH MULLION	DEPTH TRANSOM	GLAZING RANGE	MULLIONS RIGIDITY	TRANSOM RIGIDITY
MC PASSIVE	aluminium	10-326 mm /	10-294 mm /	4-59 mm	from 2,5-4092 cm ⁴ *	from 0,9-1831,1*

* There is a possibility to use additional reinforcements.

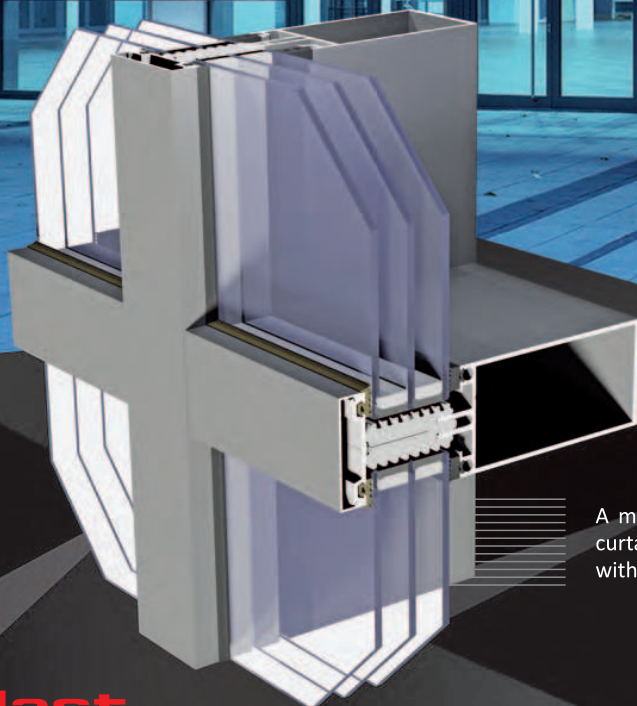
PERFORMANCE

SYSTEM	THERMAL INSULATION U _f *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
MC PASSIVE	U _f from 0,79 W/m ² K	Class AE1300; EN 12152	2600 Pa ± 3900 Pa; EN 13116	Class RE1500; En 12154

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

MCP +

MC PASSIVE +



A modern mullion-transom system used to design curtain walls whose shapes are simple and complex, with the best thermal performance ensured.

MCP +

A mullion-transom system used to design modern curtain walls whose shapes are simple and complex, with the best thermal performance ensured.

MC PASSIVE+ offers basic features and possibilities available with MC WALL structures.

The improved thermal performance results from application of a new insulator made of innovative materials, which made it possible to obtain an even better heat-transfer coefficient – U_f starting at $0,61 \text{ W/m}^2\text{K}$. MC PASSIVE+ offers one of the highest technical parameters among aluminium facade systems available on the market to respond to needs of the energy-saving and passive building industry.

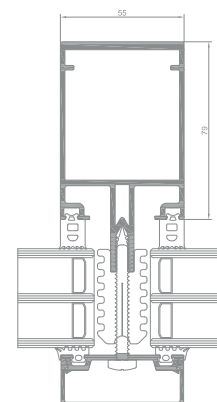
Mullion-transom visual width: 55 mm.

A wide range of mullions and transoms suitable for static requirements.

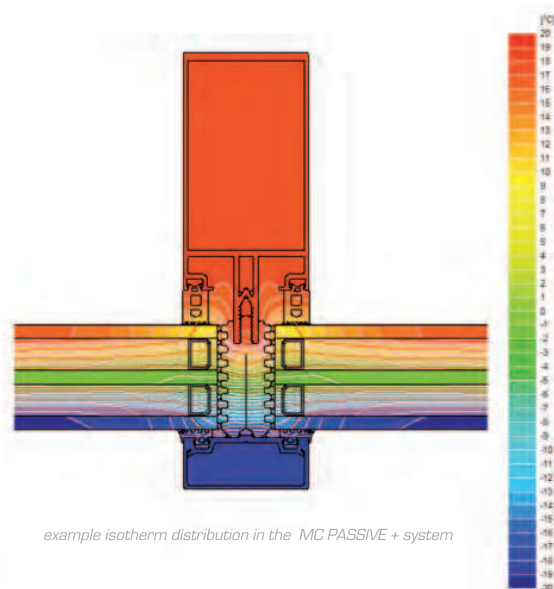
A wide range of decorative cover caps makes it possible to obtain a modern and individual design of the facade.

The option of bending profiles (detailed specification of profiles and detailed technical parameters of profile bending process are available in the customer area of the website www.aliplast.pl).

A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.



MC PASSIVE+ mullion cross section



example isotherm distribution in the MC PASSIVE+ system

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH MULLION	DEPTH TRANSOM	GLAZING RANGE	MULLION RIGIDITY	TRANSOM RIGIDITY
MC PASSIVE +	aluminium	10-326 mm /	10-294 mm /	4-59 mm	from 2,5-4092 cm ⁴ *	from 0,9-1831,1*

* There is a possibility to use additional reinforcements.

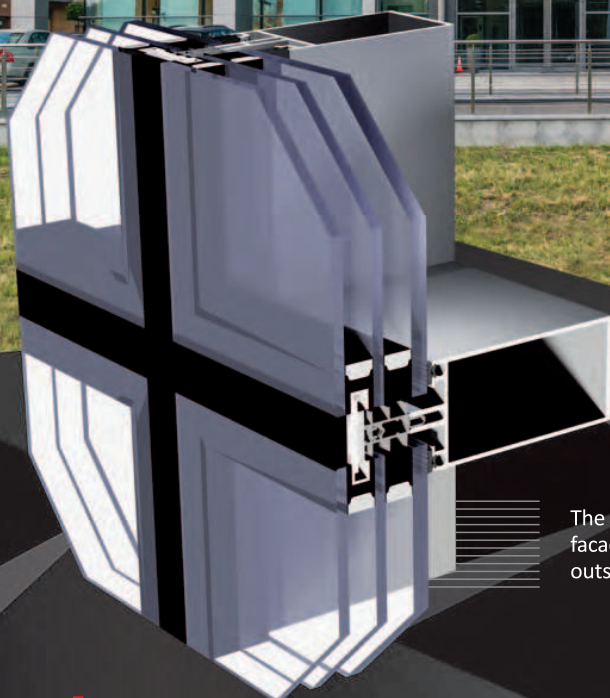
PERFORMANCE

SYSTEM	THERMAL INSULATION U_f *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
MC PASSIVE +	U_f from $0,61 \text{ W/m}^2\text{K}$	Class AE1300; EN 12152	2600 Pa \pm 3900 Pa; EN 13116	Class RE1500; EN 12154

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

MCG

MC GLASS



The semi-structural facade system. It is used to design facade structures which create a flat surface on the outside without any visible aluminium profiles.

MCG

The semi-structural facade system. It is used to design facade structures which create a flat surface on the outside without any visible aluminium profiles.

MC GLASS includes curtain walls without any visible external aluminium elements. On the outside only glass infills separated by structural silicone gaps are visible. Glazing units have special profiled pockets and gutters in which mounting plates are installed to fasten infills to the curtain wall frame.

The system features very good thermal performance (UF starting at 0,66 m²K). Such a result can be obtained since innovative insulating materials are used.

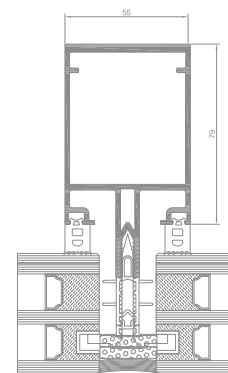
Mullion-transom visual width: 55 mm.

A wide range of mullions and transoms suitable for static requirements.

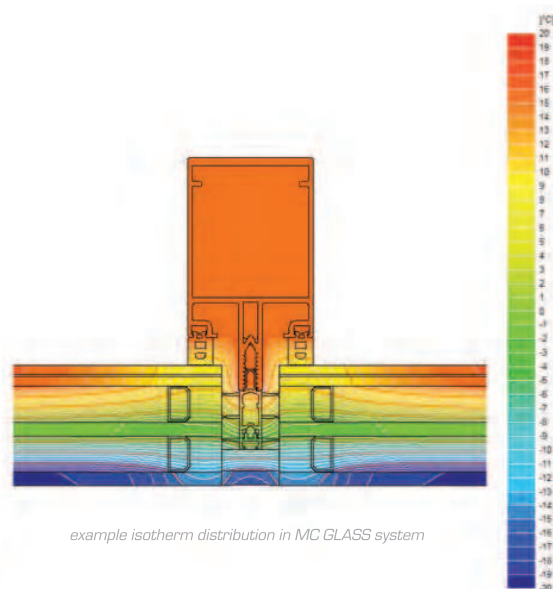
The facade makes it possible to obtain various appearance versions, in particular the so-called horizontal or vertical line.

A broad range of decorative cover caps makes it possible to obtain a modern and individual design of the facade.

A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.



MC GLASS mullion cross section



example isotherm distribution in MC GLASS system

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH MULLION	DEPTH TRANSOM	GLAZING RANGE	MULLIONS RIGIDITY	TRANSOM RIGIDITY
MC GLASS	aluminium	10-326 mm /	10-294 mm /	4-59 mm	from 2,5-4092 cm ⁴ *	from 0,9-1831,1*

* There is a possibility to use additional reinforcements.

PERFORMANCE

SYSTEM	THERMAL INSULATION Uf *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
MC GLASS	Uf from 0,66 W/m ² K	Class AE1300; EN 12152	2000 Pa ± 3000 Pa; EN 13116 : 2004	Class RE1800; EN 12154

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

MS

MODULAR FACADE



The system is designed for constructing external vertical facades featuring improved thermal insulation. The system consists of prefabricated segments of aluminium profile frames with glass infill (or other material) to be installed on site, together with joints sealed with appropriate EPDM gaskets.

MS

The system is designed for constructing external vertical facades featuring improved thermal insulation. The system consists of prefabricated segments of aluminium profile frames with glass infill (or other material) to be installed on site, together with joints sealed with appropriate EPDM gaskets.

The segments can be made as single or double (with a centre stud); the limited number of segments reduces the total installation time.

The system can also be installed in segments of window and door structures available within the aluminium systems offered by Aliplast.

In addition, the system can be installed within the depth of facade profiles on the internal glazing side, sun exposure protection systems such as shutters and blinds.

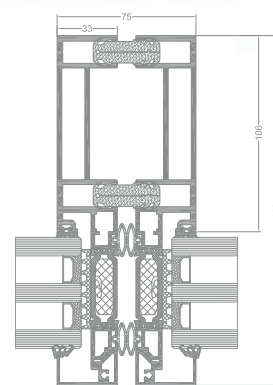
In order to improve strength parameters of the profiles, they can be reinforced with aluminium or steel flat bars and shaped sections inserted into profile chambers. Dimensions of the chambers are selected accordingly to be able to use commonly available standard flat bars and shaped sections.

High tightness parameters are possible by the application of EPDM gaskets. Internal glazing seals are selected based on the glazing table. Expansion seals on segment joints create 4 sealing barriers.

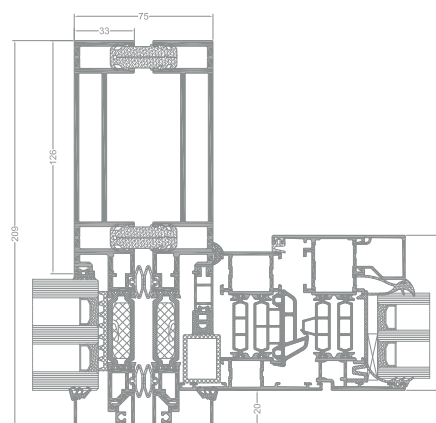
High thermal performance is ensured by 42 mm polyamide (or Noryl) thermal inserts in profiles. The space within the profiles between the thermal inserts is filled with insulating material sheets.

The prefabrication of segments takes place entirely at the workshop. The segments are fixed to the primary building structure using brackets which comprise aluminium elements joined with stainless steel screws to adjust the position of the segments being fixed in three directions. Bracket fixing to the building structure requires a strength analysis of the fasteners (anchors, screws) by an authorised design engineer.

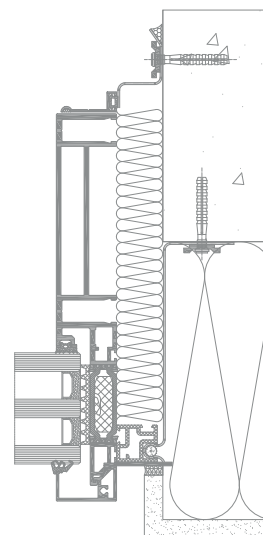
A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.



connection between modules in the MS system



combination of the IP window system and the MS system



connection of the MS system with the building structure

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	WIDTH PROFILES	WIDTH CENTRE PROFILES (MULLIONS AND TRANSOMS)	WIDTH OF THE SPECIAL TRANSOM PROFILE	GLAZING RANGE	THERMAL INSULATION Uf *
MS	aluminium	75 mm (once installed) for vertical profiles 85 mm (once installed) for horizontal profiles	75 mm	55 mm	6 mm - 60 mm	Uf from 1,09 W/m ² K

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

MC-PW

MC PARALLEL WINDOW



A parallel window system used to design window which are positioned in parallel to facade when opened. The system is provided with thermal insulation. The parallel window is a solution based on the MC Wall facade system. With this solution, uniform appearance of the aluminium-glass wall can be maintained when the window is opened. When the sash moves on the facade, an interesting architectural effect is obtained.

MC-PW

A parallel window system used to design windows which are positioned in parallel to facade when opened.

MC PW is a three chamber system with thermal insulation. It is optional to use additional insulating components to improve thermal aspects of the structure (under-glass inserts, inserts between thermal separators).

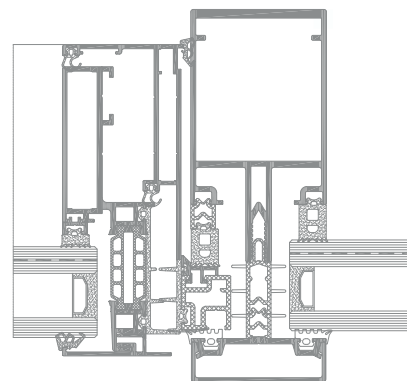
The sash is moved outwards using special scissors mechanism adapted to that purpose. The arrangement of scissors mechanisms and their number depends on the window sash size and glass weight. The scissors mechanism can be used together with multi-point hardware locking points suitable for the overall dimensions, which significantly improves window tightness.

The window can be opened manually using two opposite handles or electrically by means of special servo-motors suitable for that purpose.

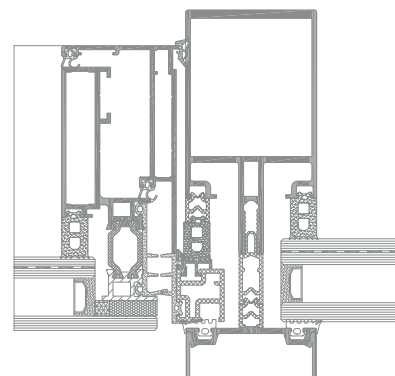
The MC-PW windows can be designed as top-hung (the lower part is lifted outwards).

The system ensures optimum ventilation in the room. Once moved out, the sash enables free airflow in both directions: inwards and outwards. Compared to traditional windows, this solution offers more optimum air circulation and much better comfort of use.

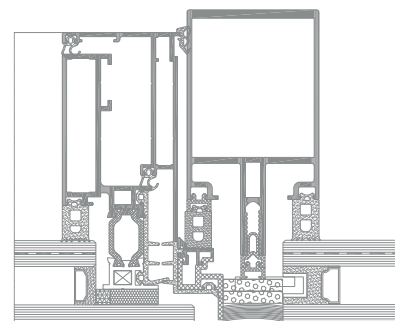
A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.



MC-PW cross section



MC-PW cross section



MC-PW cross section

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH OF FRAME	DEPTH OF LEAF	GLAZING RANGE	TYPE OF WINDOW	TYPE OF GLAZING
MC-PW	aluminium / polyamid	117 mm	98-115,3 mm	24-46 mm	parallel window	structural, glazing strip

PERFORMANCE

SYSTEM	THERMAL INSULATION Uf *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
MC-PW	Uf from 1,65 W/m ² K	Class 4; EN 12207	C5 (2000 Pa); EN 12210	E2400 (2400 Pa); EN 12208

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.

MC RW

MC RW ROOF WINDOW



Three chamber system with thermal insulation, used to design roof windows. The MC RW roof window is a solution based on the MC Wall facade system. This type of structures is used to design ventilation dampers. Windows and smoke ventilators have a specific role in ensuring safety and comfort of the building residents.

MC RW

The MC RW roof window is a solution based on the MC Wall facade system. This type of structures is used to design ventilation flaps.

The MC RW is a three chamber system with thermal insulation. It is optional to use an additional insulating components to improve thermal aspects of the structure (under-glass inserts, inserts between thermal separators).

The structure can be installed on roofs with the pitch ranging from 5° to 75° relative to the horizontal.

The MC RW roof window is fitted with an effective drainage and ventilation system integrated with the mullion-transom wall system.

Maximum structure dimensions:

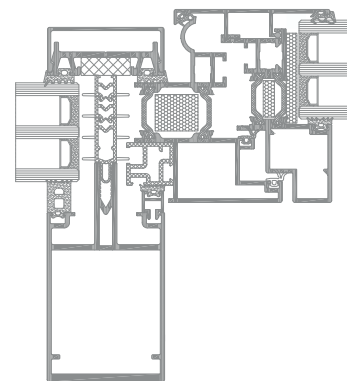
- 2120 x 1120 mm – maximum total pane area: 1,9 m²
(for this overall dimensions it is possible to use 6 ESG/16/442 glass)
- 1970 x 2070 mm – maximum total pane area: 3,48 m²

The window weight is limited by technical parameters of the applied opening mechanisms and hinges. The weight can be up to 150 kg.

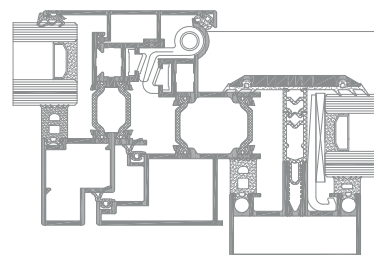
The MC RW structure can be used with a wider range of closers available on the market. The MC RW roof window can be fitted with a manual or electrical opening mechanism.

Optional to use glazing units with the thickness from 28 to 46 mm.

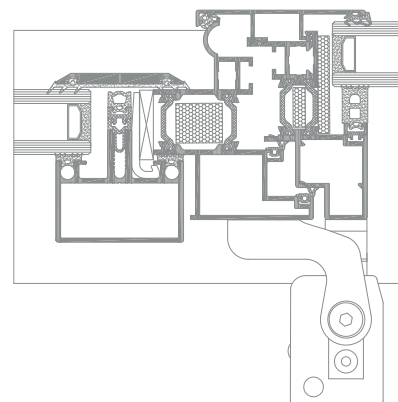
A wide range of colours available - RAL palette, structural colours, Aliplast Wood Colour Effect, bi-colour.



MC RW cross section (leaf and transom connections)



MC RW cross section (hinge side)



MC RW cross section (leaf and transom connections)

TECHNICAL SPECIFICATION

SYSTEM	MATERIAL	DEPTH OF FRAME	DEPTH OF LEAF	GLAZING RANGE	TYPE OF WINDOW	TYPE OF GLAZING
MC RW	aluminium / polyamid	87 mm	81 mm	28-46 mm	roof window	glazing strip

PERFORMANCE

SYSTEM	THERMAL INSULATION Uf *	AIR PERMEABILITY	WINDLOAD RESISTANCE	WATERTIGHTNESS
MC RW	Uf from 1,86 W/m ² K	Class 4; EN 12207	CE/BE 2400; EN 12210	Class E2100; EN 12208

* Thermal insulation is dependent on a combination of profiles and thickness of the filling.