YAWAL

for home

GUIDE TO ALUMINIUM SOLUTIONS **FOR THE HOME**

www.yawal.com

MANUFACTURER OF ALUMINIUM SOLUTIONS FOR YOUR HOME

Yawal S.A. is one of the leading suppliers of architectural aluminium profile systems used for constructing windows, doors, glass facades and other elements of aluminium joinery. It owes its position to the experience gained during the 30 years of its existence and to its technologically advanced solutions. The comprehensive product offer of Yawal S.A. makes us able to satisfy even the most demanding investors. The company's environmentally friendly, innovative systems increase energy efficiency, reduce maintenance costs and installation time.

Currently, Yawal S.A. has over 1000 domestic and foreign business partners. Concentration of the whole production process in the hands of Yawal Group makes us characterized by full market flexibility, independence of operation and price competitiveness.

- LEADING MANUFACTURER OF ALUMINIUM SYSTEMS - ALMOST 1000 CUSTOMERS
- 30 YEARS OF EXPERIENCE
- THE FASTEST DELIVERY DATES FROM 7 TO 14 BUSINESS DAYS
- MORE THAN 50 HIGH-TECH SYSTEM SOLUTIONS
- CERTIFICATES OF RENOWNED TEST INSTITUTES: ITB, IFT ROSENHEIM, ATG
- MODERN SHOWROOM

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WHY ALUMINIUM?

In today's world, the demand for energy is constantly increasing, which at the same time leads to significant climate change, necessitating the search for innovative and environmentally friendly solutions. The remedy to these challenges can be found in aluminium, which is a fully recyclable material that generates sustainable energy solutions such as lighter, more fuel-efficient vehicles, components for wind power plants and, perhaps most importantly, energy-efficient buildings.

For years, aluminium was associated only with commercial buildings and was perceived as a "cold" metal, which is not suitable for residential use in the Polish climate. However, the development of technology has dispelled this myth, proving that aluminium is ideally suited to create modern and energy-efficient windows and doors in our homes that earn their own money.

The most important features of aluminium joinery are energy efficiency, durability and the possibility of creating large-size structures. The complex design of profiles and the possibility of using various types of fillings guarantee that the right thermal insulation coefficients are maintained and heat losses are reduced. This is particularly important in the case of passive and zero-energy houses.

The urban landscape is characterised by a rapidly increasing number of houses, which are designed with large glazed surfaces that allow in more light and open up the rooms to the outside world. And this is where aluminium comes in! It combines two seemingly contradictory features: the ductility of alloys (during the production process) and the rigidity of construction elements. The former enables the creation of narrow profiles with untypical shapes, which slenderise the window, thus increasing the glass surface. In turn, the rigidity of aluminium enables the design of entire glazed structures without the need for additional reinforcements.

Aluminium offers significantly greater constructional possibilities, among other things thanks to the relatively low weight of aluminium joinery in comparison with wood and PVC, which affects the ease of operation of windows and doors made of this material.

The advantage of aluminium over PVC and wood is also manifested by the high resistance to the adverse effects of weather conditions. In comparison with PVC profiles, aluminium window and door profiles are more resistant to the loss of their colour under the influence of solar radiation. They also do not require such frequent maintenance as wood, which needs to be painted every few years. Thanks to this, their energy-saving parameters remain at the highest level for many years.

Aluminium windows and doors increase the safety of your home in many ways. They are resistant to fire and can delay its further spread. What is more, their design and the use of burglar-proof glass panes and fittings prevent intruders from entering your home.

The latest technology offers the possibility to design aluminium window frames appropriate for any architectural style. The application of appropriate paints and varnishes with a diversified structure makes the colouring possibilities practically unlimited. Very fashionable in the construction of single-family houses are currently the coatings imitating wood, which, reproducing the natural pattern, make the window look like wood, at the same time retaining lightness and strength

	Aluminum	Wood	ALU / Wood	PCV
Unlimited colour and structure choices	x			
Resistance to adverse weather conditions	x			
High acoustic insulation	x	x	x	
Fire resistance	x	x	x	
Tightness	x	x	x	x
Long-lasting quality	x	x	x	
Dimensional stability over a period of years	x	x	x	
No frequent maintenance required	x			x
Possibility to create large glazing	x			
High thermal insulation	x	x	x	x
Damage resistance	x	x	x	x
Possibility to create custom shapes	x	x		
Environmentally friendly solutions	x	x	x	
Possibility to use photovoltaic solutions	x			
Possibility to create structures with burglary resistance up to RC4	x			
Possibility to instal smart home solutions	x	x	x	x

WHAT TO LOOK FOR IN ENERGY-EFFICIENT ALUMINIUM WINDOWS AND DOORS?

The choice of window and door joinery for a newly built house is quite a dilemma. Nowadays the selection is not only about the material from which the constructions are to be made. When making a decision you should take into account several aspects such as: **aesthetics, safety, functionality and comfort of use, tightness and - above all - energy efficiency.** The lifespan of windows and doors is currently estimated at around 30 years, so we should bet on faultless products of the highest quality, such as the Yawal window and door systems, which can be used to make energy-efficient windows, panel doors, shop windows or partition walls.

HEAT TRANSFER COEFFICIENT

The most important task of a modern windows is to retain heat inside the building, which translates into a reduction of energy consumption and ultimately into lower heating costs. The increasing size of windows is also important in this regard, as they not only contribute to better illumination of the building, but above all to obtaining solar energy.

According to the Polish legal regulations in force, a woodwork whose heat transfer coefficient Uw is no more than 0,9 W/(m^{2}K) for windows, 1,3 W/(m^{2}K) for doors, is considered energy efficient. This standard is even more stringent for passive houses. According to the guidelines of the Institute for Passive Buildings in Darmstadt, Uw in this type of construction should not exceed the level of 0,8 W/(m^{2}K). This is all well and good, but to put it simply, what does this coefficient mean in practice? Saving money! **Lowering the index by as little as 0,1 W/(m^{2}K) allows you to reduce your annual expenditure on heating by EUR 175 to EUR 300 (the value calculated for a 200 m^2 flat). This may not be a very large value individually, but when calculated over a 30-year period, it can add up to more than EUR 9000..**

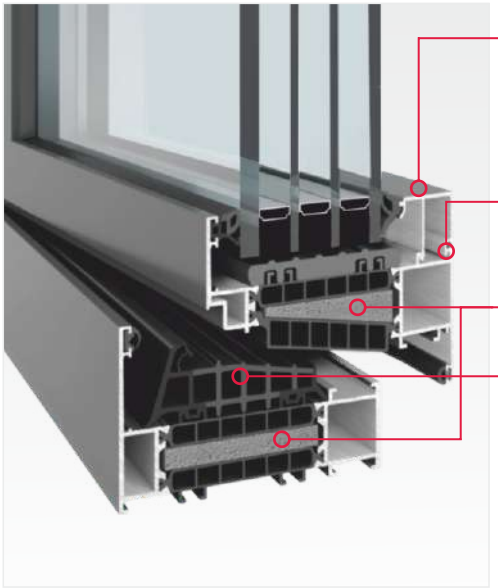
as much as EUR 295 per year

This is how much you can save by reducing the heat transfer coefficient by as little as 0.1 W/(m^{2}K).*

*based on calculations carried out by SWISSSPACER source

ENERGY-EFFICIENT ALUMINIUM PROFILES

How do manufacturers achieve the right level of heat transmission? **The glazing plays a huge role in this case. The thicker the glazing package and the greater the percentage of glass panes in the total window surface, the more energy-efficient it becomes.** Yawal systems allow for the application of all types of two- and three-chamber glass panes available on the market. Another important element is the aluminium profile, from which the window frames are constructed. They have a chamber structure supplemented with two thermal separators of complicated shapes, responsible for keeping heat inside the room. The way the separators are arranged inside the system is very important. The simpler the isotherm they form, the greater the thermal insulation of the whole structure will be. Yawal systems are among the market-leading solutions in terms of the best thermal properties.



Modern design of snap-on profiles in combination with new gaskets (possibility of obtaining a single plane on the aluminium - gasket line).

Additional windproofing through the use of a gasket between.

Excellent insulating liners.

Excellent energy efficiency and very high water tightness thanks to the innovative design of the central gasket. It is made of two materials. The first rigid EPDM increases the tightness of the structure, the second foamed EPDM improves the thermal properties.

WARM INSTALLATION METHOD

Buying energy-efficient windows is only half the battle. Even the best constructed windows or doors will not fulfil their properties if they are installed in the wrong way. Energy-efficient window and door constructions should be installed using the warm installation method.

The traditional way of installing windows and doors in the building wall causes thermal bridges which contribute to the loss of heat and increase the risk of dampness in the wall in contact with the window. An alternative is the method of layered installation, otherwise known as "warm installation". The essence of this method lies in placing the structure in the insulation layer. In the layered assembly, a properly constructed scaffolding, on which the whole window construction is based, plays a very important role. It is created by means of a tight support frame mounted to the wall. It is built in a segmented manner from the so-called warm assembly beams, which are made of insulating material (e.g. polystyrene EPS).

The warm installation method uses three layers of insulation. A vapour barrier tape or foil is used on the inside to prevent dampness from penetrating from the masonry into the thermal insulation layer. The middle layer, which acts as thermal insulation, is made of polyurethane foam. A vapour-permeable film or tape is placed on the outside of the inner layer, which allows the diffusion of water vapour but also protects against the adverse effects of precipitation.

TM
102
HI

A COMPREHENSIVE APPROACH TO ENERGY SAVING

ALUMINIUM WINDOWS AND DOORS - TM 102HI

The system is used to construct modern types of windows, doors dedicated to passive and energy-efficient houses, requiring high thermal insulation. We offer a wide range of glazing and the possibility of installing all types of two- and three-chamber glass panes available on the market. **This solution meets all the requirements of investors in terms of durability, quality and aesthetics of the shaped objects**. The constructions created on its basis look light and subtle.

COMFORT AND FUNCTIONALITY:

- ✓ Possibility to construct tall windows
- ✓ Low profiles allowing more light in
- ✓ Low treshold for improved comfort and increased window tightness
- ✓ Possibility to make an all-glass corner
- ✓ Option to combine with DP 180 PRIMEVIEW sliding door systems
- ✓ Compatible with drainage systems
- ✓ Compatible with the intelligent home system

Thermal insulation

Windows - od 0,45 W/m²K

Doors- od 0,8 W/m²K

Acoustic insulation

Windows - 39÷48 dB

Burglar resistance

Windows - RC2

Maximum leaf/sash weight

Windows - 180 kg

Doors- 250 kg

Maximum width

Windows - 1400 mm

Double-leaf doors - 2400 mm

Maximum height

Windows - 3000 mm

Double-leaf doors - 2400 mm


TM
77
HI
HIGH THERMAL INSULATION

ALUMINIUM WINDOWS AND DOORS - TM 77HI

A safe window and door system allowing for obtaining excellent technical parameters of the designed structures in the scope of thermal and acoustic insulation or water tightness. **It enables the creation of windows and doors with large surfaces in various layouts and configurations.** The system is compatible with the full range of hardware available on the market.

COMFORT AND FUNCTIONALITY:

- ✓ Possibility to manufacture balcony doors with low threshold or tilt and slide doors
- ✓ Possibility to design a structure in industrial version imitating steel windows
- ✓ Option to design windows with hidden sash and outward opening windows
- ✓ Possibility to make all-glass corner
- ✓ Possibility to automate opening process
- ✓ Compatible with linear drainage system
- ✓ Elimination of bimetallic effect through split thermal break

Thermal insulation

Windows - 0,8÷1,4 W/m^{2}K

Doors- 0,9÷1,5 W/m^{2}K

Acoustic insulation

Windows - 39÷48 dB

Doors- 36÷45 dB

Burglar resistance

Windows - RC2, RC3, RC4

Doors- RC2, RC3

Maximum leaf/sash weight

Windows - 180 kg

Doors- 250 kg

Maximum width

Single-sash window - 1300 mm

Single-leaf door - 1400 mm

Maximum height

Single-sash window - 3000 mm

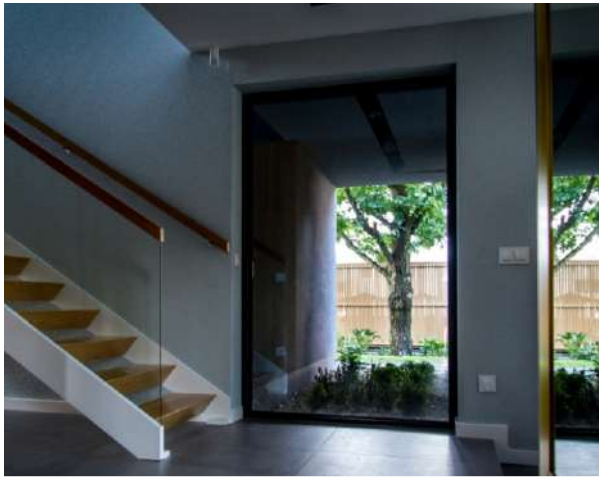
Single-leaf door - 3000 mm

TM
82W
HI

A SYSTEM OF DISPLAY WINDOWS GLAZED FROM THE OUTSIDE

GLASS DISPLAY WINDOWS - TM 82W HI

The system enables easy and trouble-free assembly of even large-format glazing in shop windows and large window structures without the need to bring them inside the room - glazing is done from the outside. This is a unique solution, which has no equivalent on the Polish market. The system allows for the installation of double-chamber glass packages with a thickness of up to 60 mm.



COMFORT AND FUNCTIONALITY:

- ✓ Glazing of the structure from the outside
- ✓ Possibility to create both openable and fixed windows
- ✓ Possibility to build up construction frames from inside
- ✓ Visual similarity to mullion and transom facadej
- ✓ High durability and long lifetime of the system
- ✓ Possibility to use additional steel reinforcement for better statics

Thermal insulation

U_w from 0,5 W/m^{2}K

Water tightness

900 Pa

Windproofing

2400 Pa

Maximum filling weight

500 kg

Impact resistance

Class 5 (950 mm)

Maximum height

4700 mm

HOW DO I ENHANCE THE INDIVIDUAL STYLE OF MY HOME WITH TERRACE DOORS?

Large-scale glazing has become an extremely popular trend in contemporary architecture. Initially they dominated commercial construction, where glass façades were designed. With time, however, this type of solution began to appear more and more frequently in residential construction.

ADVANTAGES OF TERRACE DOORS

Appropriately selected for the building design, large glazing gives the building elegance, unique look and modern character. They also raise the status of the whole project. **Among the many advantages of glass walls is undoubtedly the optical enlargement and elongation of the living space of the building, especially if the floors in the living room and on the terrace are made of visually similar material. This practically invisible barrier between inside and outside allows residents to commune with nature all year round regardless of weather conditions.** Large glazings are therefore ideal for houses surrounded by beautiful landscape or gardens. Another unquestionable advantage of this type of construction is the constant access to natural sunlight, which not only illuminates, but also heats the rooms. For this reason, large windows and doors should be placed in the design on the south and south-east side of the building.

The latest trend in the creation of large glazing are aluminium narrow-profile sliding door systems allowing the frames to be completely concealed in the building walls. With these systems, all advantages of standard terrace doors are intensified, as we gain a virtually uniform glass surface with discreetly marked dividing lines. The top product of this type on the market is the Moreview system from Yawal S.A.

SAFE AND ENERGY-EFFICIENT ALUMINIUM TERRACE DOORS

People who decide to have large glazings in their homes often face doubts. Won't a glass wall cause a lot of energy loss? Will my home be safe? Modern, high-quality aluminium solutions eliminate these dilemmas at an express pace. A very helpful factor while choosing a door system is the thermal insulation coefficient U, which is calculated not only for the glazing package, but also for the frame. The lower the value of the coefficient, the better. **The best aluminium patio door systems available on the market from Yawal S.A. already have a Uw value from 0.7 W/m²K.** To avoid energy losses, the profiles of overhead sliding systems have been fitted with thermal insulators located in the axis of the glazing units. The large proportion of glass also raises concerns in terms of user safety. Here, too, Yawal S.A. systems prove ideal. Depending on the selected system, aluminium frames are made in burglar resistance class RC2 and RC3. Safety of the entire structure is also increased by multi-layer ESG or VSG glass, special handles and door locking mechanisms.

UNLIMITED DESIGN POSSIBILITIES

Modern sliding door systems such as Moreview offer virtually unlimited design options for building architecture. Single-rail, double-rail or multi-rail constructions can be created without concern for smoothness of operation or strength. It has become possible to construct corners opening at 90° and to create entire sequences of fixed glazing, which can be joined at completely any angle thanks to the all-glass corner. More and more often architects are using the "pocket door" or "galendage" solution, also available with Moreview and DP 180 PRIMEWIEV. This type of structure, when opened, disappears completely into the building wall in a specially designed "pocket". It is a solution that guarantees complete blurring of the boundary between the interior and the exterior of the house and maximises the passage light when the leafs are opened.

Yawal terrace door systems make it possible to create unique and functional structures, which, depending on the type of hardware used, can be divided into: overhead sliding, tilt-and-slide, turn and tilt-and-turn and folding. Top class hardware makes opening very easy and practically noiseless - ideal for those who value comfort. A single hand movement is enough to dissolve the border between the world inside the house and its surroundings.

FUTURE SOLUTIONS - COMFORT AND AUTOMATION

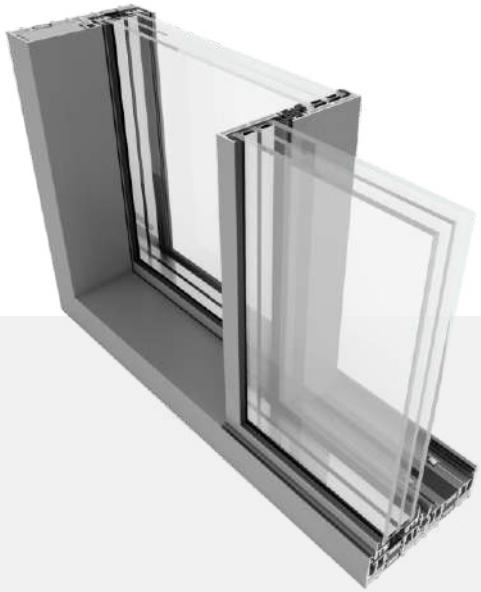
Manufacturers, in addition to gradually increasing the size of available solutions, are also working on increasing the comfort of using sliding structures. For this reason, solutions such as threshold-free fitting or linear drainage integrated into the door frame are appearing, which efficiently drain the water condensing inside the construction and coming from outside in the form of precipitation. This increases the water-tightness of the entire door. In order to streamline the process of controlling terrace doors, the structures are equipped with a special drive allowing automatic opening and closing. What is more, to increase aesthetics, all mechanical elements are hidden inside the construction. **Yawal terrace door systems allow for the application of conveniences such as a biometric access system with a fingerprint reader or the ability to control the opening with a smartphone.**

MV

UNLIMITED FREEDOM OF SPACE DESIGN

MOREVIEW TERRACE DOORS

The system is used to construct large-scale glazing sequences, one or more of which has an opening function. **The frames of the construction are completely hidden in the building walls, thanks to which the barrier between the interior and the external landscape is practically obliterated.** This effect is enhanced by the threshold-free design. The solution provides for the possibility of glazing with double glazing packages up to 60 mm thick on the external side of the building, which greatly simplifies installation.



COMFORT AND FUNCTIONALITY:

- ✓ 90° opening corner solution
- ✓ All-glass corner solution for joining glass panes at any angle
- ✓ Solution for pocket doors that disappear into the wall
- ✓ Automation of the control process
- ✓ Possibility to design single-rail, double-rail or multiple frames and to combine them as non-symmetrical corners
- ✓ Completely free from threshold

Thermal insulation

from 0,7 W/m^{2}K

Acoustic insulation

42 dB

Burglar resistance

RC2

Maximum leaf/sash weight

- manually sliding - 400 kg
- automatically sliding - 1200 kg
- fixed - 1200 kg

Maximum leaf width

4000 mm

Maximum construction height

4000 mm

DP
180

SYNERGY OF SUPERIOR QUALITY AND SMART HOME SOLUTIONS

PRIMEVIEW

TERRACE DOOR DP 180 PRIMEVIEW

The DP 180 PRIMEVIEW system is used to manufacture windows and overhead sliding doors for external development. **It reduces thermal energy losses, thus reducing the operating costs of the designed buildings.** This effect is ensured by the triple line of thermal insulators increasing the thermal insulation of the system. The threshold-free design of DP 180 PRIMEVIEW doors eliminates barriers between inside and outside. It optically enlarges the space and facilitates movement.

COMFORT AND FUNCTIONALITY:

- ✓ 90° opening corner solution
- ✓ Solution with a low threshold that improves comfort and aesthetics
- ✓ Automation of opening process
- ✓ Movable corner mullion and narrow mullion solution
- ✓ Possibility to hide the frame of the structure in the walls of the building and to create pocket doors
- ✓ Compatible with linear drainage system
- ✓ Solution of a smooth transition of the door into the mullion and transom facade

Thermal insulation

U_w from 0,7 W/m^{2}K

Acoustic insulation

47 dB

Burglar resistance

RC2

Maximum leaf/sash weight

600 kg

Maximum leaf width

3300 mm

Maximum leaf height

3300 mm

DP SLIDE ECONOMICS

DP SLIDE OVERHEAD SLIDING DOORS

DP Slide is a modern system of thermally insulated sliding doors with the possibility of creating overhead sliding structures. The system has 2 installation depths: DP 86 and DP 110. **Good thermal insulation parameters have been achieved through the use of innovative thermal separators in the glazing plane and the division of the construction zones into: warm (thermally insulated) and cold (uninsulated).** This is the only such solution available on the market. Thanks to the use of innovative gaskets and high drainage capacity, the system's operation is absolutely unique - it provides wind resistance and watertightness.

COMFORT AND FUNCTIONALITY:

- ✓ Quick installation and removal of the leaf thanks to the leaf profiles clipped at 45° and connected using screw joints
- ✓ Option of using a glazing clip to speed up glazing and ensure easy replacement of panes in the event of a break
- ✓ Can be combined with sidelights
- ✓ Solution for easy assembly of the roller shutter box
- ✓ Narrow mullion solution
- ✓ Renovation profiles
- ✓ Can be used in conservatories

Thermal insulation

DP 86 - Uw from 1,5 W/m^{2}K

DP 110 - Uw from 1,3 W/m^{2}K

Maximum leaf dimensions (W x H)

DP 86 - 1500 mm x 2400 mm

DP 110 - 1800 mm x 2600 mm

Maximum weight of sliding leaf

DP 86 – 80 kg

DP 110 – 200 kg

Maximum weight of overhead sliding leaf

DP 86 - 120 kg

DP 110 - 200 kg

HOW TO CREATE A UNIQUE FRONT DOOR?

Over the years the role of the front door has changed. Of course, their most important task is still to protect the house interior against intruders and cold. Nevertheless, the door is now the showpiece of our house, responsible for the first impression, therefore it is very important that together with the façade and windows it creates a coherent whole.

CUTTING-EDGE TECHNOLOGY

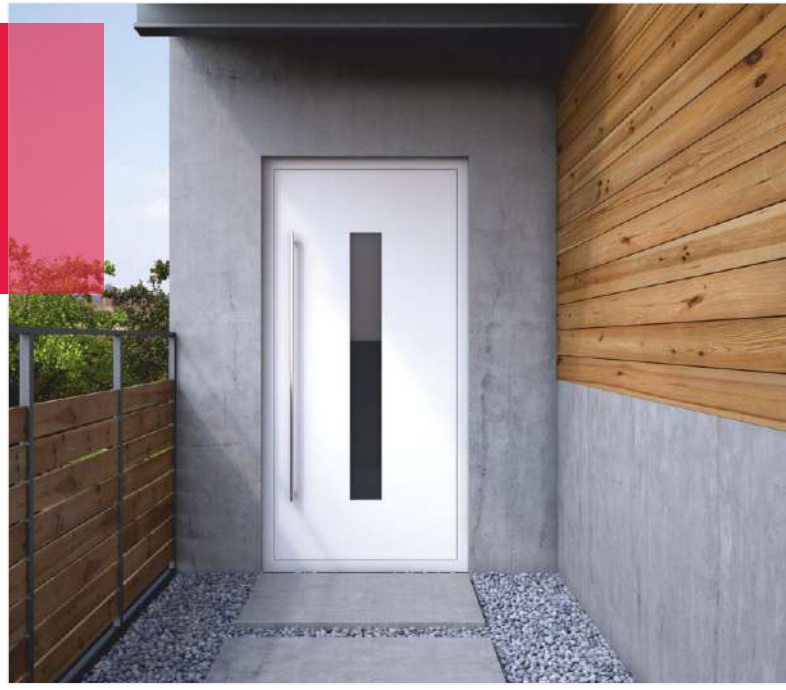
Aluminium panel doors, which are characterised by high stability and resistance to deformation even in case of unfavourable weather conditions, have hit the architectural designs of houses. Prestige aluminium doors provide warmth, security and comfort to householders. A very high level of thermal and acoustic insulation, as well as water-tightness is achieved thanks to three-chamber profile structure,the use of the most modern thermal separators, and a number of internal and external seals. Prestige doors, thanks to their environment-friendly, complex construction, retain heat inside during winter, at the same time ensuring pleasant coolness in summer, which translates into lower costs borne for heating or air conditioning.

SECURITY FOR YEARS

The very construction of the doors offered by Yawal guarantees the safety of residents, but it is possible to increase the level of security by adding multi-point locks or anti-burglary bolts mounted on the hinge side. If the door design requires the installation of glazed elements, they are made of tempered glass.

FULL AUTOMATION

Intelligent system solutions allowing remote control or access without a key are becoming more and more popular. There are many possible facilities such as: **transmitters giving the household members the ability to open the front door by remote control, video modules with control panel responsible for monitoring the situation outside the house or motion sensors placed in the exit zone. A technical novelty is the biometric access system with fingerprint reader, thanks to which you can open the door with just one touch of your finger.**



UNIQUE STYLE

The wide range of available designs of panels doors Prestige will highlight the individual style of each house. Depending on whether we are looking for doors for modern construction or for buildings undergoing renovation, we can obtain a perfectly matching product thanks to the freedom of form, colour, structure and equipment selection.
The number of configurations is practically unlimited, so it is worth taking a moment to determine the right combination of frame, leaf frame and door filling. Yawal gives customers the possibility to make door leafs in one plane in relation to the frame, thanks to which the leaf profile is invisible. Advanced production technology allows for decorative applications, artistic milling and the use of various types of glazing.

> The unique character is intensified by the wide range of colours. Fans of modern style can choose between RAL coatings, anodised surfaces, metallic shades or structural effects. On the other hand, lovers of cosy, traditional arrangements may opt for glass panels or panels imitating the appearance of wood.

SUBTLE DETAILS

Surface hinges are a classic solution that looks beautiful, especially in traditional buildings, while the effect of a uniform and smooth surface without visible hardware can be achieved by using concealed hinges. The third option are roller hinges adjustable in several planes which harmonise with the door profile lines.

The individual character of our entrance can be accentuated by selecting handles and pull handles that harmonise with the remaining door elements. The forms of handles are clearly evolving towards the simplest possible shapes. Our partners offer handles in square, rectangular, oval and round shapes. They are made of stainless steel, plastic or cast. Regardless of their shape and material, they are characterised by durability, impressive design and the best quality of workmanship.




SMART DOORS FOR YOUR HOME

PANEL DOOR SYSTEM TM 102HI PRESTIGE

The system is used to construct exclusive entrance doors installed in passive or energy-saving single- and multi-family buildings. The solution has been developed on the basis of the TM 102HI window and door system. **The multi-chamber profile structure and the solution of thermal sealing between the frame and the leaf allow achieving the highest thermal insulation parameters available on the market.**

COMFORT AND FUNCTIONALITY:

- ✓ Solution with single-sided and double-sided facing panels
- ✓ MCan be combined with side and top lights
- ✓ Compatible with linear drainage system
- ✓ Possibility to use panels of any design with stainless steel appliqués and decorative milling
- ✓ Possibility of execution in version with adhered glass
- ✓ Automation of opening process

Thermal insulation
from 0,7 W/m^{2}K

Sound insulation
34 dB

Burglar resistance
RC2, RC3

Maximum leaf weight
250 kg

Maximum width
Single leaf door - 1300 mm

Maximum height
Single leaf door - 3000 mm

TM
77
HI

PRESTIGE

ESTHETICS AND MODERNITY

PANEL DOOR SYSTEM TM 77HI PRESTIGE

The highest quality entrance door system for single and multi-family houses. The solution allows for the leafs to be flush with the frame (invisible leaf profile) or flush on one side. **Thanks to the use of multi-chamber thermal insulation system and innovative thermal separators, the product has excellent thermal properties and eliminates thermal stresses caused by temperature differences.**

COMFORT AND FUNCTIONALITY:

- ✓ Solution with single-sided and double-sided facing panels
- ✓ Can be combined with side and top lights
- ✓ Possibility to use panels of any design with stainless steel appliqués and decorative milling
- ✓ Possibility of execution in version with adhered glass
- ✓ Automation of opening process
- ✓ Compatible with the TM 77HI window/door system

Thermal insulation
from 1,1 W/m^{2}K

Sound insulation
33 dB

Burglar resistance
RC2, RC3

Maximum leaf weight
250 kg

Maximum width
Single leaf door - 1200 mm

Maximum height
Single leaf door - 3000 mm

PRESTIGE

PP01

PP02

PP03

PP04

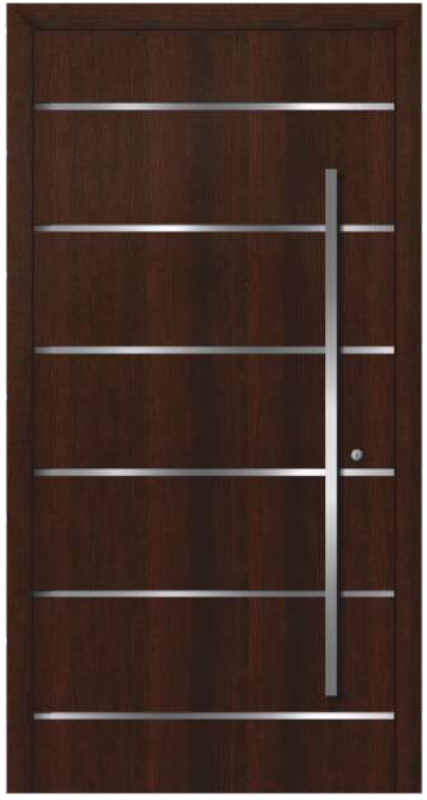
Characteristics: max. panel size: 1250x2500 mm. Double sided or single sided panel.
Can be painted in all RAL colours, structural colours and wood-effect colours.
*It is not possible to make the doors in wood-like colors.

PRESTIGE

PP05

PP06

PP07



PP08

Characteristics: max. panel size: 1250x2500 mm. Double sided or single sided panel.
Can be painted in all RAL colours, structural colours and wood-effect colours.
*It is not possible to make the doors in wood-like colors

PRESTIGE

PP09*

PP10*

PP11*

PP12

Characteristics: max. panel size: 1250x2500 mm. Double sided or single sided panel.
Can be painted in all RAL colours, structural colours and wood-effect colours.
*It is not possible to make the doors in wood-like colors.

PRESTIGE

PP13

PP14

PP15*

PP16*

Characteristics: max. panel size: 1250x2500 mm. Double sided or single sided panel.
Can be painted in all RAL colours, structural colours and wood-effect colours.
*It is not possible to make the doors in wood-like colors

PRESTIGE

PP17*

PP18

PP19

Characteristics: max. panel size: 1250x2500 mm. Double sided or single sided panel.
Can be painted in all RAL colours, structural colours and wood-effect colours.
*It is not possible to make the doors in wood-like colors.

EXCLUSIVE

PE01

PE02

PE03

PE04

Characteristics: max. panel size: 1250x2500 mm. Double sided or single sided panel.
Can be painted in all RAL colours, structural colours and wood-effect colours.
*It is not possible to make the doors in wood-like colors

EXCLUSIVE

PE05

PE06

PE07

PE08

Characteristics: max. panel size: 1250x2500 mm. Double sided or single sided panel.
Can be painted in all RAL colours, structural colours and wood-effect colours.
*It is not possible to make the doors in wood-like colors.

EXCLUSIVE

PE09

PE10

PE11

Characteristics: max. panel size: 1250x2500 mm. Double sided or single sided panel.
Can be painted in all RAL colours, structural colours and wood-effect colours.
*It is not possible to make the doors in wood-like colors

GLAZING

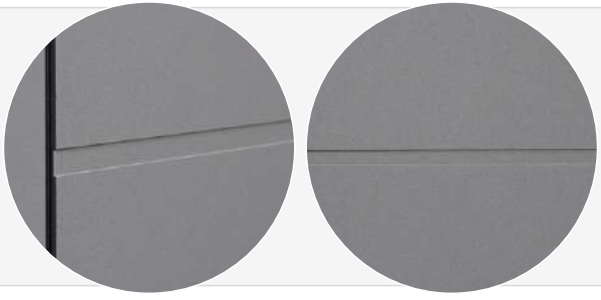
Exterior doors, sidelights and transom windows are equipped with 68 mm glass packages in transparent, ornamental and matt versions.

HINGES

Panel doors are constructions equipped with hinges from leading hardware manufacturers. Well-chosen hardware guarantees the users trouble-free operation, safety and attractive visual effect.
Depending on the preferred style, users can choose between the following hinges:
hidden hinges that guarantee the effect of a smooth, uniform surface, roller hinges adjustable in several planes, and classic surface hinges.

Hidden hinge

Roller hinge



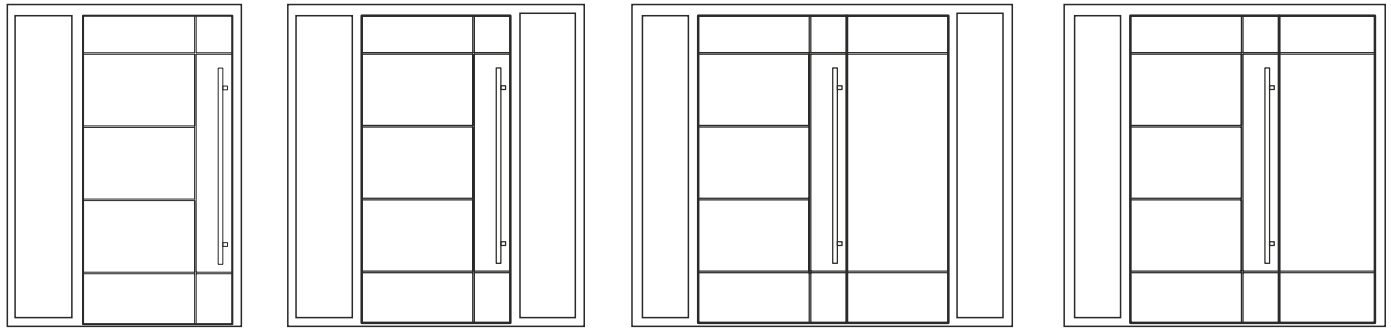
MILLS

Possibility to manufacture panelsbased on individual customer requirements.
Milling width range:
from 10 mm to 60 mm.

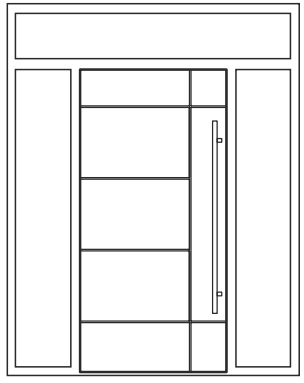
TRANSOM WINDOWS / SIDELIGHTS

All door designs (single, double and extended version) can be equipped with single sidelights - right or left in burglar resistance **class RC3** and in a transom window.

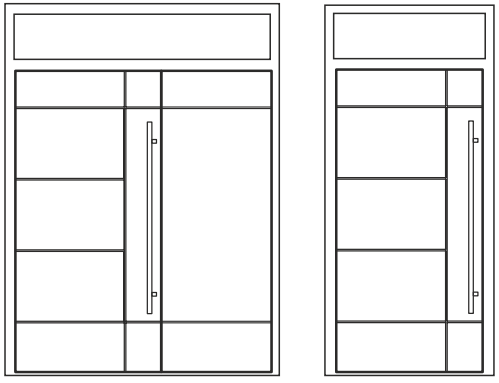
EXAMPLES OF SIDELIGHTS IN SINGLE AND DOUBLE LEAF DOORS



EXAMPLE OF A TRANSOM WINDOW AND SIDELIGHTS IN A SINGLE-LEAF DOOR



EXAMPLES OF TRANSOM WINDOWS IN SINGLE AND DOUBLE LEAF DOORS



Sidelights - maximum dimensions	
External frame dimensions - width	External frame dimensions - height
for glass - 6000 mm	for glass - 2600 mm
for panel - 1250 mm	for panel - 2600 mm

Transom windows - maximum dimensions	
External frame dimensions - width	External frame dimensions - height
for glass - 2600 mm	for glass - 1500 mm
for panel - 2600 mm	for panel - 1250 mm

The figures below show examples of transom windows and sidelights made from backed panels.

HOW TO ACHIEVE A GLASS WALL EFFECT IN YOUR HOME?

Large glazed areas in houses do not have to be created only by means of sliding systems or windows and doors systems. There is a whole range of other solutions that will look just as spectacular, while maintaining the same parameters regarding durability or thermal insulation of the entire structure.

GLASS FACADES - BEAUTY AND FUNCTIONALITY

Glass façades have become very fashionable in the residential building sector. Thanks to their well-designed construction, they are a durable and aesthetically pleasing complement to the façade. Glass facades give lightness to a building and contribute to its visual attractiveness, and thanks to the use of modern structures, when looking from the outside, it is not impossible to distinguish between fixed and open elements. **Glazed facades are also extremely durable, their maintenance is low-maintenance, and their construction makes them resistant to the adverse effects of weather conditions.** A glass façade opens up the building to the beauty of the landscape and perfectly illuminates the interior. Simple shapes and minimalism of façade constructions will satisfy the tastes of all followers of modern architectural trends. The solutions provided by Yawal include structural facades with the possibility of integrating windows, effective ventilation or installing facade blinds. The possibility to match the aluminium joinery with the colour of the whole façade is very important for investors.

Yawal facade systems are available in the full range of RAL colours, both in matt, structural and satin finishes. Those who prefer more traditional arrangements can choose from a wide range of coatings imitating natural wood.

☑ the full range of colours is presented on pages 44-47

ENERGY EFFICIENCY OF GLASS FAÇADES

A very important issue is of course their energy efficiency, which is closely related to thermal insulation. If the solution is poorly chosen, rooms will heat up excessively in the summer and cool down very quickly in the winter. To eliminate such problems,the technologically advanced construction of facade systems is based on profiles equipped with foam insulators. The second very important factor determining the proper thermal performance of a facade is the choice of an appropriate multi-layer glazing package. Excellent thermal insulation of glazing is achieved by filling the spaces between individual packages with noble gas. In addition, in the production process, composite distance frames are used between the panes, which drastically reduce heat loss from the contact between the pane and the section. These contact points are referred to as thermal bridges. An increasingly common solution is the use of solar control glass in glass facades situated on the south side, which is particularly exposed to sunlight.

ALUMINIUM CONSERVATORIES

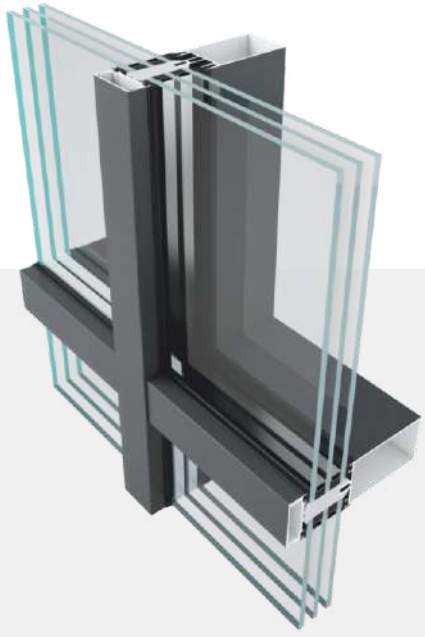
Juicy green, golden leaves, fabulous white surrounding our loved ones in an atmosphere of relaxation - this effect can be achieved by including a place for a winter garden in the house design or integrating it into the body of the existing building. A conservatory will not only make our house more beautiful, allowing us to admire nature all year round, there are also economic reasons behind its construction, such as improving the energy balance of the house and increasing the value of the property by increasing its usable area. While listing advantages of this type of solutions, we cannot forget about the increase of sunlight inflow to the rooms. **The offer does not include schematic, ready-made conservatories, each implementation is an individually designed structure tailored to the needs and requirements of our customers**. To be able to use the conservatory all year round, we include aluminium profiles with thermo-insulating spacers in the design, which ensure high level of thermal insulation. The use of aluminium characterised by material stability and appropriately selected glass panes in the construction of winter gardens ensures a very high level of burglary protection.

FA
50N
HI

UNIQUE GLASS WALL EFFECT

FA 50N HI FACADE SYSTEM

The system enables the design and execution of light mullion and transom curtain walls. The unique foam insulator system and the possibility of using double-chamber glass panes allows excellent thermal insulation parameters to be obtained. **The FA 50N HI system is classified among the best curtain walls available on the market in terms of thermal and acoustic insulation, water tightness and wind load resistance.**



COMFORT AND FUNCTIONALITY:

- ✓ Possibility to create facades without aluminium profiles visible from the outside (SL)
- ✓ Extensive range of cover strips for a unique visual effect
- ✓ Possibility to build outward opening tilt/sliding windows (SW)
- ✓ Possibility to create windows with invisible sash (INV)
- ✓ Possibility to incorporate windows and doors based on the TM 102HI and TM 77HI systems and DP 180 doors into the façade
- ✓ Automation of room ventilation

Thermal insulation
Uf - 0,63 W/m²K

Sound insulation
53 dB

Burglar resistance
RC2, RC3, RC4

Maximum weight of a glazing unit tightness
450 kg

Glass pane thickness
32 mm - 64 mm

Water
class RE 2700

PF 40

ELEGANCE AND SECURITY

SPECIAL SYSTEM PORTFENETR PF 40

PF 40 system is a modern solution used to construct external balustrades mounted as protection of high openable windows, the so-called French balconies. The solution is made of strong and durable aluminium profiles that ensure maximum safety. At the same time, it is a very attractive architectural detail, which together with a window provides elegance and lightness to a solid.

COMFORT AND FUNCTIONALITY:

- ✓ Increase user safety
- ✓ Increased sound insulation of the building
- ✓ Possibility to mount a glazing bead to protect the edge of the glass
- ✓ Available in both single- and double-sash structures
- ✓ Elegant clip for masking the fastening screws
- ✓ Quick and easy installation

Thickness of filling

12,8 mm
16,8 mm
20,8 mm

Possibility of assembly on

- single-sash windows
- double-sash windows

Maximum width of the pane

2650 mm

Maximum height of the pane

1200 mm

ELEGANT WINDOW FINISHING

SPECIAL ECLIPSE SYSTEM

Window shutters can be a beautiful and functional setting for each window, which, if properly selected to match the façade and woodwork, will emphasise the individual style of each house. External window covers increase the comfort of living for the inhabitants. **They regulate air circulation, insolation and temperature inside the rooms and reduce noise reaching the house.** They also increase the level of residents' safety by protecting windows against adverse weather conditions and making it difficult for intruders to get inside.

COMFORT AND FUNCTIONALITY:

- Low maintenance and easy to keep clean
- Panelled solution - allows for total blackout effect
- Suitable for windows, terrace doors and balcony doors
- Fixed lamella solution - access to light at specific angles
- Possibility of projecting shutters in front of the façade, placing them in a window recess or flush with the façade.

Maximum width of 1 leaf

900 mm

Maximum height of 1 leaf

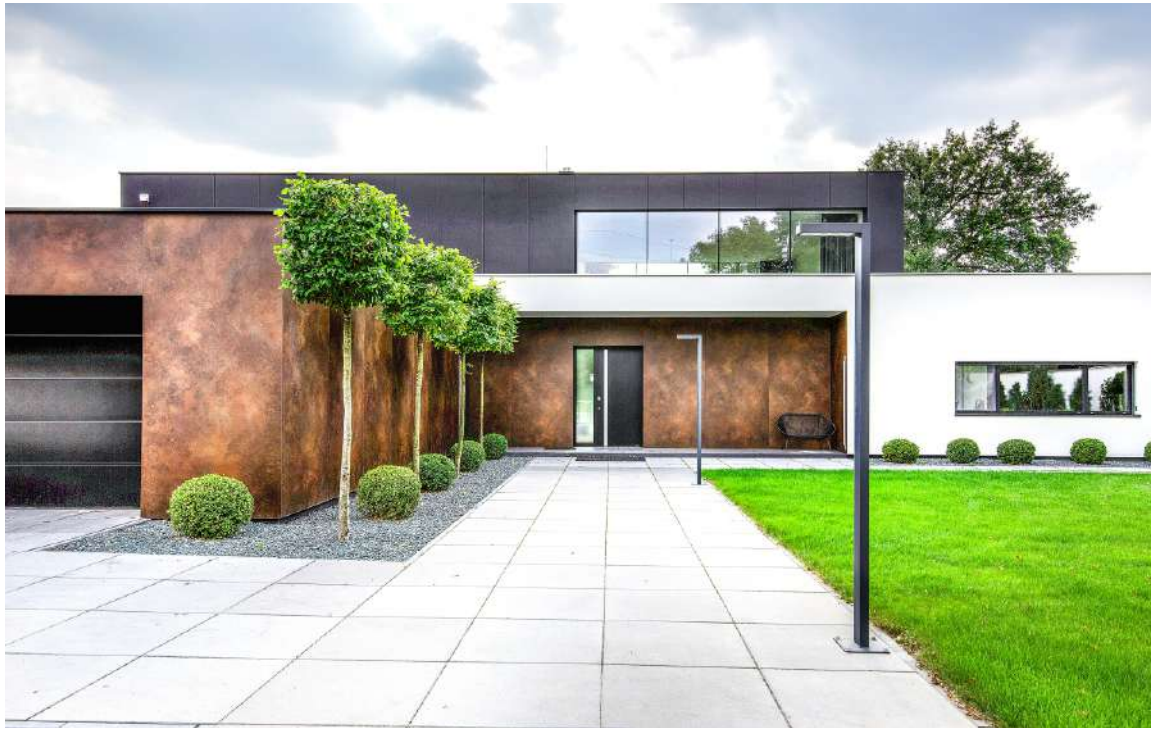
2400 mm

Installation with fixed lamellas

to a frame
to a wall

Method of installing panel shutters

to a wall



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