

**belac**

AL&PVC Systems

*Specialists for windows and doors*



## About us!

**BELAC company** is founded in 1966 as a craft shop specialized in the production of wooden joinery and furniture. The company headquarters is located in Petrovac in the Branicevo County.

In 1971 the company has expanded its activities and became carpentry and glass cutting craft store. By tracking the market in 1994 begins the production of aluminum joinery.

In early 1998 the company moves to a new modern hall of 2000 m<sup>2</sup> and expands its activity in PVC joinery. Preference and key owners' business policy is the use of modern materials and technology in order to obtain a product whose quality fulfills the requirements of Western European market.

Confirmation of quality is the placement of our products to the markets of Serbia, Montenegro, Slovenia, Switzerland, Austria, Holland, Italy, France, Libya, the Caribbean (Sent Maarten)...

Numerous objects that we have equipped with exclusive joinery and thousands of satisfied customers say about us more than enough.

Our signature line is: speed, quality, years of experience and tradition. Our products are made of top quality Raw material estimable worlds manufacture:

- Aluplast - PVC systems [www.aluplast.de](http://www.aluplast.de)
- Exalco - aluminum systems [www.exalco.gr](http://www.exalco.gr)
- Roto - fittings [www.roto-frank.com](http://www.roto-frank.com)
- Stublina - fittings [www.stublina.com](http://www.stublina.com)
- Guardian - glass [www.guardian.com](http://www.guardian.com)

Production capacity of our plant can satisfy everything starting with individual residential buildings, offices, shopping malls to large projects.

Our company employs highly qualified people. Qualified management, masters in production, assembly teams are an example of professional and quality work of our company, all in order to meet the needs of our clients.

All together we stand behind the guarantee on the quality of our products. We have all the necessary certificates and attestation in accordance with quality standard ISO 9001: 2008 and the products have the CE mark of quality.



## Guarantee on our products



*Guarantee on profile stability*



*Guarantee on glass*



*Guarantee on fittings*



Profile	Description	Fittings	Glass	Uw
 <b>IDEAL 8000</b>	PVC 6-chamber profile	Roto	triple Low-e glass filled with argon 4 - 16 - 4 - 16 - 4 mm	0.94
 <b>IDEAL 4000</b>	PVC 5-chamber profile	Roto	double Low-e glass filled with argon 4 - 16 - 4 mm	1.24
 <b>ALBIO 109</b>	ALU	Stublina	double Low-e glass filled with argon 4 - 16 - 4 mm	1.70
 <b>ALBIO 109 super thermal</b>	ALU	Stublina	triple Low-e glass filled with argon 4 - 16 - 4 - 16 - 4 mm	0.90
 <b>ALU WOOD</b>	Aluminum /wood	Stublina	triple Low-e glass filled with argon 4 - 16 - 4 - 16 - 4 mm	1.20

With a large selection of profiles you have a difficult job to decide !  
This is our proposal !





- Energy efficient windows to save energy and money
- Safety gear
- Maximal sealing
- Fitting ROTO NT/STUBLINA with possibility of improvement for greater safety
- Low emission glass filled with argon

Your PVC and aluminum joinery don't have to be white. PVC and aluminum windows can be ordered in colors that match your home. You can choose one of the colors from the RAL chart or opt for wood decors or acrylic paint.

## Wood - decor



Light oak

Golden oak

Dark oak

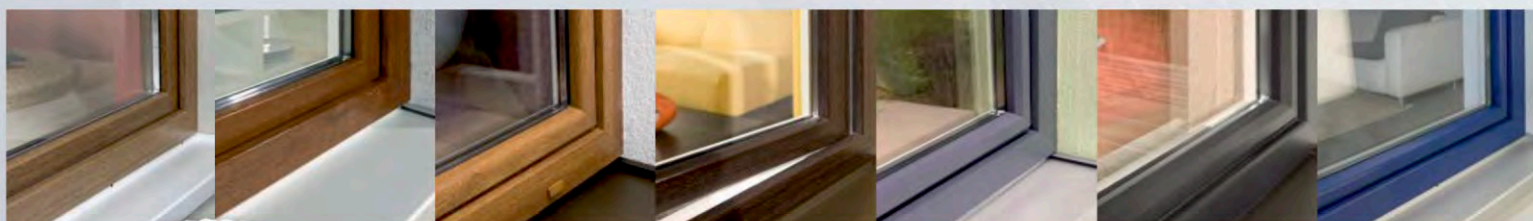
Mahogany

Walnut

Oregon III

Pine

Wood-decor is recommend for the renovation of old houses or in rustic style interior. Easy to maintain, they have a natural look of the wood texture. Possibility of large choice of colors according to the following color chart.



As with acrylic PVC windows you can select the colors of the RAL chart for aluminum windows also. On the inner side it can be white or primary color. Easy to maintain and clean with most ordinary cleaners.





## Energy saver glass !

Glass	Package	Types of spacers	Ug	Soundproofing
low-E + Argon	4-16-4	Al	1,1 W/m2K	30 dB
low-E + Argon	4-12-4-12-4	Al	0,9 W/m2K	32 dB
low-E + Argon	4-16-4-16-4	Al	0,7 W/m2K	32 dB
low-E + Argon	4-16-4-16-4	PVC	0,6 W/m2K	32 dB
security low-E + Argon	3.3.1-16-4	Al	1,0 W/m2K	35 dB
security low-E + Argon	3.3.1-16-3.3.1	Al	1,0 W/m2K	36 dB
security low-E + Argon	3.3.1-12-4-12-3.3.1	Al	0,7 W/m2K	37 dB
low-E 4 seasons + Argon	4-16-4	Al	1,0 W/m2K	30 dB
low-E 4 seasons + Argon	4-14-4-14-4	Al	0,6 W/m2K	32 dB

In addition to the choice of profiles one of the most important elements of energy efficient window is a choice of appropriate glass. A good choice of glass allows low transfer of heat due to low temperature inside the glass. This ensures greater comfort in the room during the summer and minimal loss of heat in winter. With a good package you get less heating costs and money savings of up to 22%.

### Texture



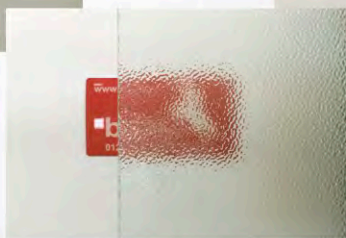
*Sandblasted glass*



*Flutex glass*



*Delta*



*Sand glass*



*Industrial delta*

- **ParSol** glass is a transparent glass in different colors (blue, bronze, green, gray)
- **StopSol** glass has a metallic coating which provides a "mirror" effect in brown, blue, gray and green color.

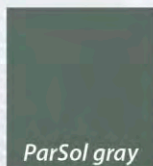
### Colors



*ParSol bronze*



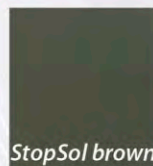
*ParSol blue*



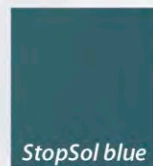
*ParSol gray*



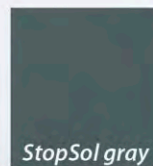
*ParSol green*



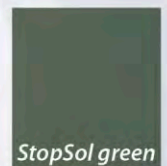
*StopSol brown*



*StopSol blue*



*StopSol gray*

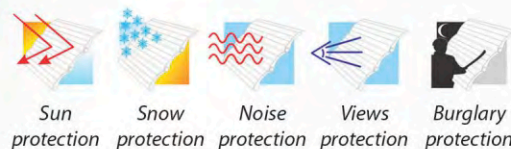


*StopSol green*

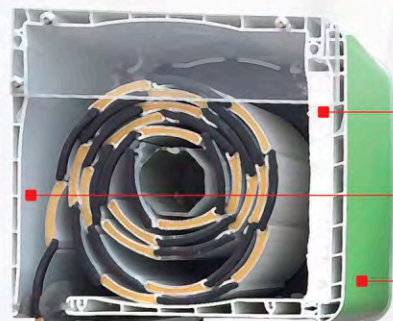


The use of glass surfaces over external walls and roofs is increasing in modern architecture. So when choosing glass should be kept in mind the transmittance of external light, solar factor, thermal transmittance. The biggest problem was the heat loss through glazed areas, overheating in summer and leaking the cold in winter. For all these reasons, we recommend low-e glass. **LOW-E** is actually a microscopic thin layer of metal oxide, which is located in the IZO glass of profiles joinery, in the space between the glass and facing the surface, it is almost invisible and drastically reduces the UV, usually only allows solar radiation.





**The intersection of PVC box**



Insulation

PVC box

The inner side service lid

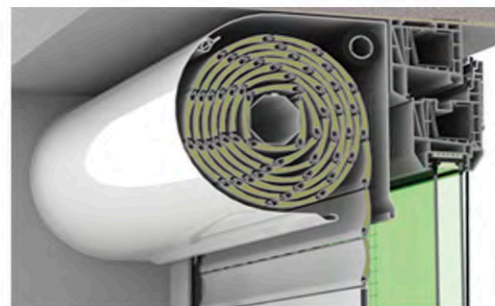
PVC **EURODECOR** double-wall offers the same aesthetics and the same dimensions as the aluminum box.

Aluminum slats and guides



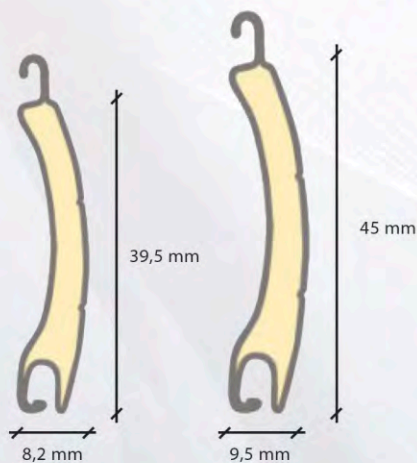
Alu box

Insulation

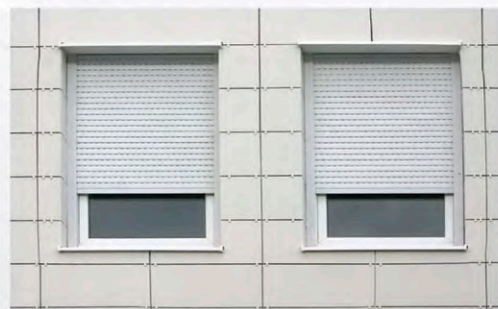


**External blind**

**The intersection of ALU box**



*Blind with external box*



*Blind with internal box*

Aluminum slat contemporary designed, excellent workmanship made following the strict quality control.

**Accessories**

**Blinds** are a product for windows and balcony doors that can protect joinery from wind, rain and snow and also make your home look more beautiful. Thanks to the aluminum slats that are filled with polyurethane and blinds that contain thermal insulation in the box, your home will be additionally protected from the cold and unbearable heat.



*Remote control*



*Push button*



*Webbing strap machine*







# Door types

Basic



Basic Security



Premium Security

Ud = 0,6 W/m²K



## Accompanying products for doors

B-201 B-202 B-203



Elephant's ear handrail (white, gray, black)

B-301 B-302 B-303



Swan's wing handrail (white, gray, black)

B-401 B-402 B-403



V handrail (white, silver, black)



B-3052 - 320 mm  
B-3054 - 550 mm  
B-3056 - 750 mm  
B-3058 - 950 mm



B-3092 - 320 mm  
B-3094 - 550 mm  
B-3096 - 750 mm  
B-3098 - 950 mm



B-9205  
550 mm



B-9002  
1700 mm



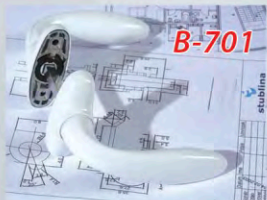
B-9103 - 1500 mm



B-540

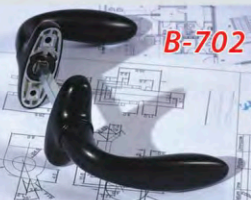
Handrails Panel (aluminum)

## Door catch



B-701

white



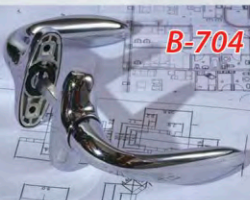
B-702

black



B-703

gray



B-704

high-gloss



B-705

satın



B-706

gold

B-1020



Knocker Lion (gold)

B-801



Anchor (silver, gold)



B-802

B-901



Spy hole (gold, silver)



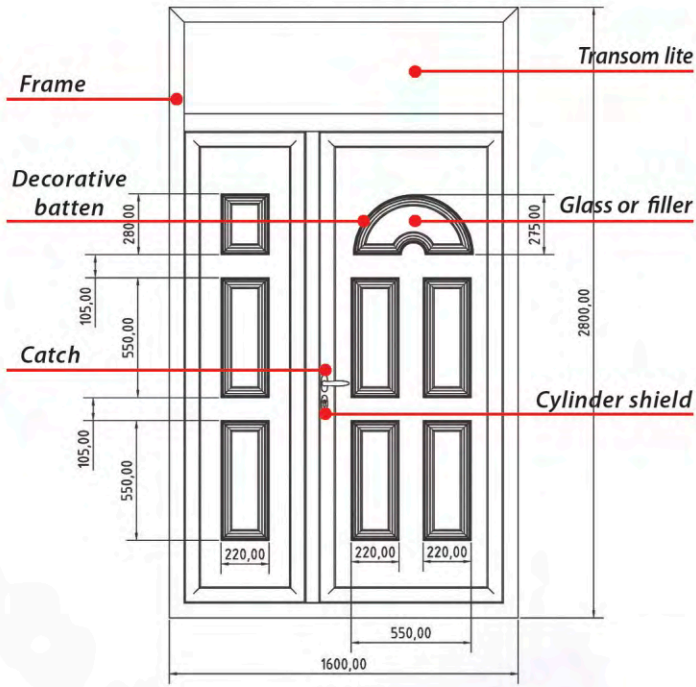
B-902







Technical drawing of door



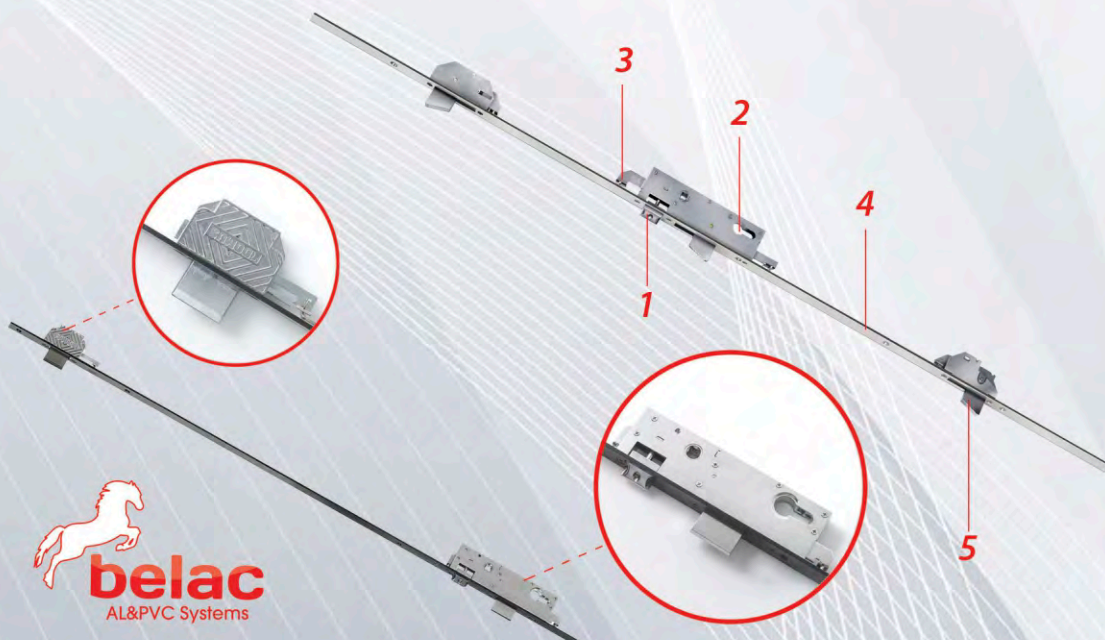
Security door with hidden wing

The main feature of these doors is hidden wing, it means that the outer side of the wing is filled with decorative infill, what makes the door particularly aesthetically beautiful and exclusive. By choosing this model you get modern design of the door with numerous other benefits.



Security lock with three-point locking

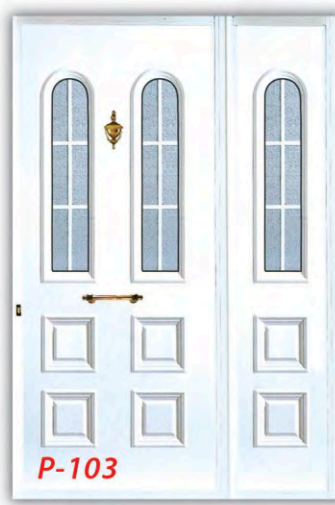
1. Locking latch of chromed steel
2. Easy-moving mechanical lock
3. Effectively ensured lock technique
4. Lock rail trough entire length provides stability
5. Powerful beak with rear mounting plate







P-101



P-103



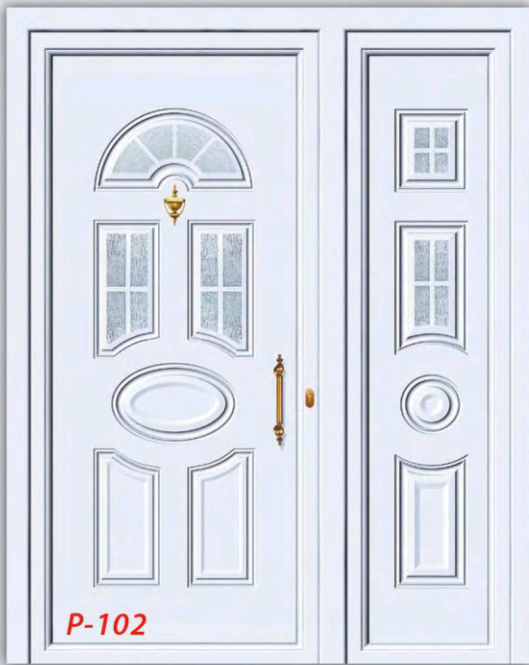
P-106



P-104



P-107



P-102



P-105



P-108

Great choice of models- part of assortment



P-109



P-110







www.belac.rs

P-201



P-208



P-202



P-203



P-204



P-205



P-206



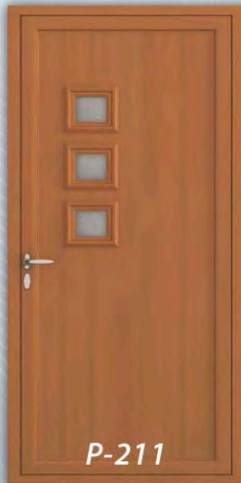
P-207



P-209



P-210



P-211



P-212



P-213



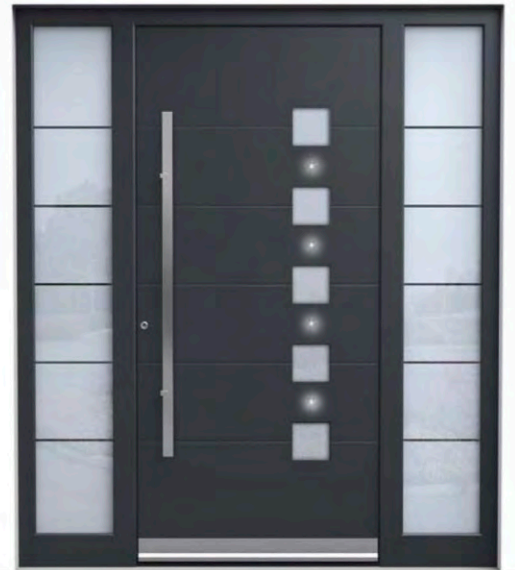




912



921



922



913



916



933



915



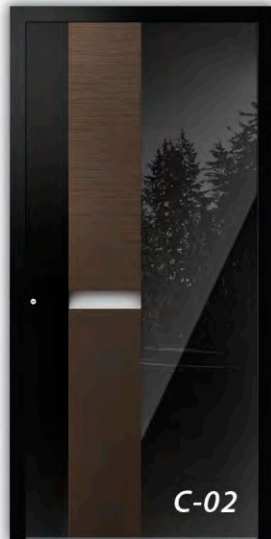
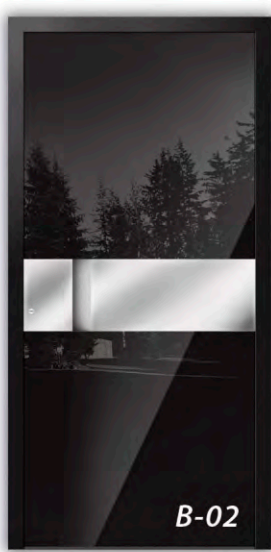
6266



920



## Premium safety door



Most of existing front doors do not provide the required level of protection against burglary. They are burgled relatively easily, quickly and without excessive noise. Security doors provide additional safety. In addition to the security you get up to 60% better sound insulation than wood and up to 50% better thermal insulation than with doors usually implemented into our buildings.



## Profile front doors

*Diversity of combining possibilities !*

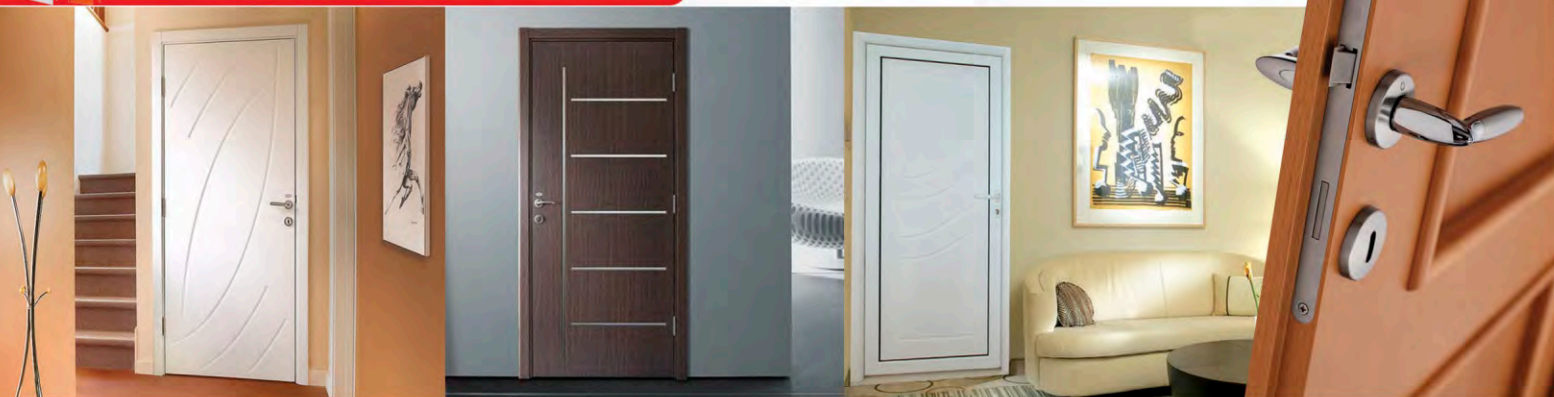


*Great choice of colors according to RAL chart !*





## Interior doors



**Interior doors** are an important element of your home, in addition to the basic function of separating the area, doors also have important aesthetic experience of the entire interior what makes the selection of interior doors an important decision. One frequent door during the day opens and closes more than 200 times, so the quality of your door is very important. Therefore, in the production process, special attention is paid to the protection and finish. Doors can be single, double, sliding, with transom ...

### MDF interior doors



**MDF** is a mixture obtained industrially of processed wood and recycled paper with addition of chemical products. In industrial process such mixtures are casted in boards under certain temperature, which is used in furniture industry but also in production of interior doors. Further treatment depends on the patterns and colors you want. They can be painted with polyurethane (RAL chart) or coated with PVC foil. They may be in "Shine" or "Mat" version. The frame is made of plastic-coated aluminum profiles.

### Interior doors with aluminum box



**Interior aluminum door** in combination with telescopic frame are designed in accordance with high demands in interior design and made of specially designed profiles. Thanks to telescopic aluminum frame doors can be placed on walls width from 100 to 500 mm. Aesthetic cover molding give additional protection for edges, which certainly has a practical use also. The design itself of telescopic frame allows rotation of the wing up to 180 degrees. Aluminum fittings make a special detail. Frequent designer's requests for slim profiles, forced us to design fitting with extremely small surface of visible aluminum.





Given the fact that are the largest moving part of your home, a good finish of garage doors makes your home more attractive. You will enjoy in various other advantages of this type of door, such as quiet opening and closing, possibility to park right in front of the door, possibility of opening from car or house ... In addition to good design these doors are made to last for years. At the same time are light and rigid.



### Roller garage doors

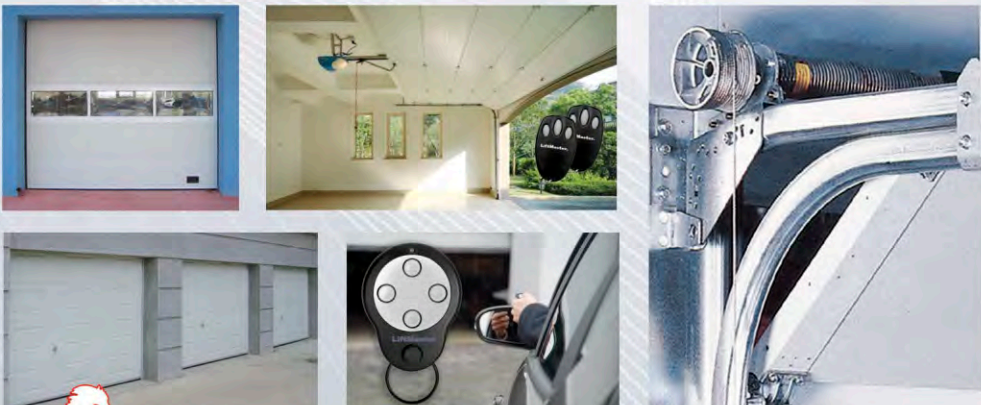
Insulated aluminum roller garage doors are made of slats width of 55 or 77mm. Depth of profiled aluminum is 1 mm, and depth of slats 23 mm. Polyurethane filling between the panels provides good insulation.

Roller garage doors are mounted on aluminum guides with built in sealing rubber. Last slat on the bottom side has a sealing rubber placed along the whole length to improve sealing and prevent dust from entering. Roller doors are manufactured in white and grey variants according to the production standard, but there is a possibility of coloring according to the buyer's desire. High quality workmanship, quality materials, resistant to snow, rain and cold. Of long standing, confirmed by warranty. They are built in with silent electric motor. The electric motor meets all modern standards, quality and durability. It has automatic locking, limit switches, remote control - all for maximum comfort and safety of use. Roller doors have security system which activates facing any obstacle and the door automatically stops and opens. These doors have a system that prevents violent opening in case of break-ins. In case of power failure these doors have an opening system with movable spindle - crank.

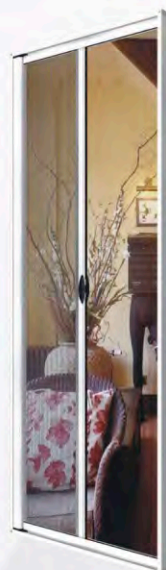


### Sectional garage doors

Ceiling sectional doors are an ideal solution for garage, industrial, or any other door where you have limited space. With the help of guides mounted on sides of inner walls of the garage, slide under the ceiling, leaving the entire opening and the area around the opening free. The doors are balanced with torsion springs, which makes them easy for manual lifting. The doors are made of sections (panels). Connecting is done with special fittings that provide excellent hydro and thermal insulation. The production quality of the sections and joints guarantees a good functionality of the entire structure. The sections are made of galvanized steel tin, which is plasticized, made with relief ornaments, or flat surface. Filled with polyurethane, thickness of 42 mm, so as to provide excellent thermal and sound insulation. Finishing provides protection from external influences, while materials used for in production give massiveness and durability. In case of any damage sectional structure allows easy replacement and repair. Standard colors are white and gray, with the possibility of painting in any color in RAL chart.







**Insect screens** are a simple and effective solution as they enable the smooth flow of fresh air, and also provide protection from insects.

They are made of high quality aluminum profiles with fiberglass nets.

There are several ways of opening: lifting, sliding and fixed fixture.

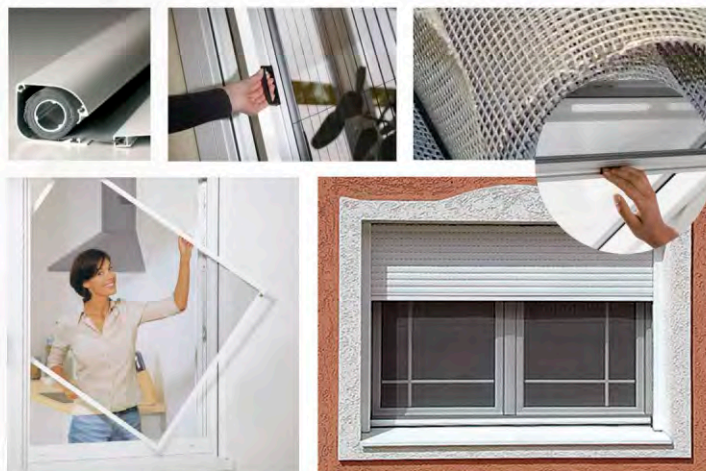
**Fixed insect screens** are the most economical type of insect screens. They consist of an aluminum profile and net attached to the profile. There is an easier system for windows and more massive for doors.

**Roller insect screens** are the most used and very practical.

**Roller insect screens** are easily closed and opened as the net wraps around the axle which is equipped with a spring that pulls the insect screen to reel around its axle. This insect screen takes up very little space in the window because the entire insect screens fits an aluminum box with a diameter of 4.5 cm.

**Pleated insect screens** are ideal for getting out on balconies and terraces. The insect screen opens like an accordion, it can be mounted on the outside and inside of all kinds of doors. In closed position the net is hidden in the box of insect screen and when closing or opening it can easily be stopped in any position.

## Insect screens



Depending on the distance between the ribs, shutters allow from more or less light, shadows, to complete blackout, protection from unwanted views, and provide a nice aesthetic look to your home. When closed, protect against break-ins. In addition, shutters are an excellent insulator, so that in addition to light protection they also keep the interior temperature of the room.

**Shutters** can be opened:

- Hinged opening to the outside
- Sliding - opening left and right
- Accordion - opening one over another

**Shutters** can be made with mobile, semi-mobile and stationary slats. It can be mounted directly to the frame of the window or it can be placed in its own frame. When plastic coated all colors from the RAL chart are available, meaning that it is possible to fit in a variety of styles.

## Shutters



· **PVC window boards** are the final part of the lower part of the inner window jamb. Special configuration of window boards and the existence of internal dividers gives extra strength to the structure. Special surface of window board makes it a multi-purpose and guarantees longevity. They can be white, brown and in special requests wooden texture.

· **Drips** are external window boards made of galvanized and plastic coated steel sheet. Drip can be in different sizes and colors according to customer's desire.

## Window boards





## Interior venetian blinds



Venetian blinds are an excellent and very convenient system of protection from solar radiation, which provides fine control of light. Not only they provide the desired lighting comfort, venetian blinds also protect your privacy from undesired views. They are simple to use and maintain, suitable either for your home or office.

They are suitable for windows and doors, as they can be mounted on any type of joinery - metal, wood, aluminum or PVC.

Venetian blinds as a system are made of aluminum slats of different widths and color spectrum. Widest use of venetian blinds is found in offices. Venetian blinds are installed in the openings of the window glass surface. Control is manual with plastic bar which allows the aluminum slats to rotate up to 180 ° and regulate the flow of sunlight into the room. They are produced according to the measures of openings.

## Exterior venetian blinds



**Solomatic jalousie** are aluminum venetian blinds of larger dimensions, designed for outdoor protection for glass surfaces and for closed or open terraces.

Their purpose is not only protection from the sun but also from other weather conditions (rain, snow, wind ...).

Except protection they give the house an attractive look. The panels are made of solid aluminum sheet of trapezoid shape which gives them a special strength and makes them more stable.

External guides are made of aluminum profiles with rubber bands that allow almost noiseless scroll slats.

Stave width: 60 and 80 mm.

Slats resist even strong wind and always return to their original state thanks to flexibility. Due to the small dimensions of the mechanism box and the small package height in raised position ideal for installation underneath the facade leaving the glass openings uncovered.

Possible manual steering with a crank and with electric engine with key or remote control.

## Glass shower cabins



Design your own **shower**, choose the type of glass (transparent, sandblasted, patterned according to your specifications or smoked glass), door position and dimension of the cabin.

Glass thickness is 6-10 mm and all the sandblasted glass is protected with "Antiplaque" protective layer that prevents scale and other impurities on the glass.

We produce showers with profiles, which makes the cabin more durable, longer-lasting and aesthetically beautiful. With profiles cabins have no water leakage between the glass and the wall.

The hinges are exclusively made of INOX, ensuring the durability of your shower cabin for a longer period.

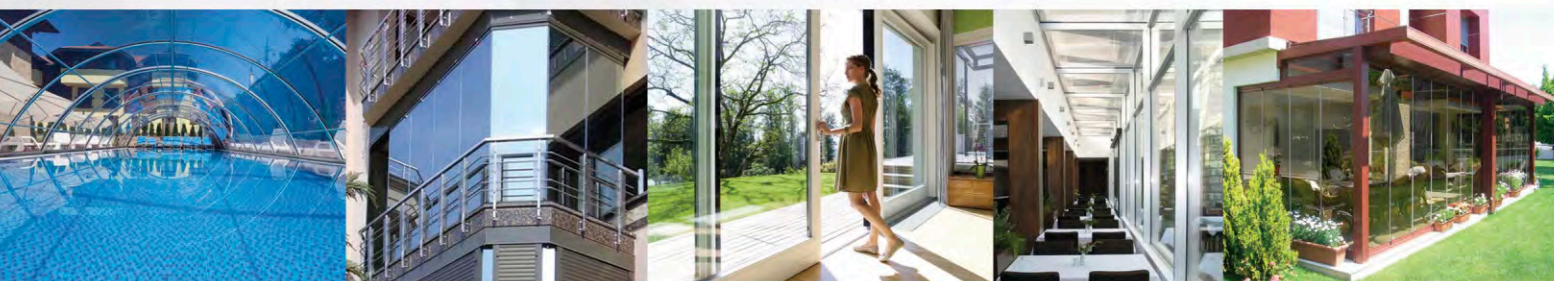




Terraces, balconies and winter gardens have a special part in exterior design. Glazing is an ideal way to increase the home area. Terrace or balcony with glass doors and windows can increase the living area, become a new room or a corner for rest and work. In homes that have winter gardens, these are the most popular places for gathering with friends and family and in the prettier half of the year - a link with the yard and garden.

Winter gardens offer a remarkable quality of life, your room surrounded by glass overlooking the garden, your glazed balcony with sliding doors, your pool covered with glass or your roof made of glass. Winter gardens provide quality glazing of large areas and do not require any special maintenance. When planning you should take into account several factors: an adequate roof system and roof shape, proper sun protection, good ventilation, appropriate window system and adequate glass.

These structures are made of aluminum profiles and can be part of an existing building or completely independent. Glazed roof structure is set as single unit with garden walls.



## Kiosks

We offer the manufacture and delivery of kiosks in sizes and designs depending on specific purpose of kiosk (for the sale of newspapers, fast food, souvenirs ...).

We produce complete construction for kiosks coated with aluminum windows, doors and thermal insulation panels in aluminum frames.

## Containers

We produce high-quality containers depending on size and purpose (residential, for building sites, storage, mobile, garage ...).

They are made of rust-proof metal structures, walls of sandwich panels with polyurethane insulation and complete installation.

They are durable, extremely resistant and easy to assemble and transport.





## Glass facades

### Natural source of light / Modern design !

**Glass facades** are composed of self-supporting elements made of aluminum profiles and glass. There are two basic types of installation. The first type are so-called aluminium structural facades that gives a uniform glass surface, almost exclusively reserved for skyscrapers. The second type are aluminum semi structural facades. Glass is dominant, but with more or less visible aluminum support structure (minimally about 2.5 cm + joint), vertical and horizontal. The benefits are good sealing, classical opening and easy maintenance. Our recommendation is low emissive glass filled with argon which besides aesthetics (external reflection, color building ...) provides an excellent thermal and sound insulation as well as absolute waterproofness. When talking about sealing of glass facades, the goal is not to prevent the water to pass from the outside into the construction, but to drain away the water from structure that had passed. Aluminum as a material is extremely stiff, yet flexible and thin. Because of these qualities, aluminum facades are resistant to various shocks and weather changes and provide quick and easy installation. These facades are part of large commercial buildings and shopping centers and are generally synonymous for contemporary urban zone.

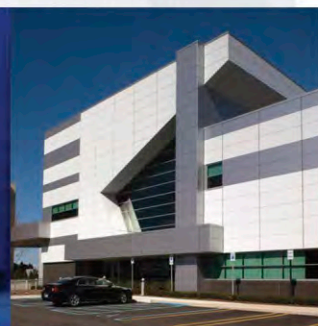
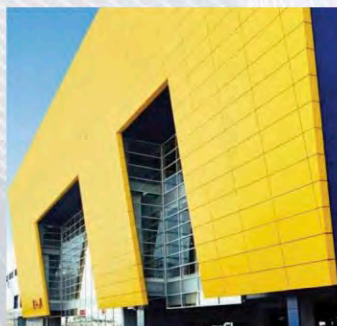


## Alubond facades

### Great choice of colors !

**Alubond facades** are made of aluminum profiles as sub-construction of facade and aluminum composite panels, alubonds, thickness of 3-5 mm as the facade cladding. Function of alubond panels is to provide aesthetic appearance and close airspace. Air is an excellent insulator, so the air space provides the required level of resistance to the heat transfer. If there are requirements for high thermal insulation extra insulation can be installed underneath alubond panels in form of stone or glass mineral wool. Alubond panels are formed to overlap the sides for 3 cm, creating drawer with airspace, which are fixed to aluminum facade carriers. The load-bearing aluminum substructure is attached to an existing concrete wall and carries the entire load from alubond panels to the wall.

Alubond panels can be thin because their function is not insulation, but transfer of external load. High quality of alubond ensures long life and attractive appearance of the building with high formability.





**AL and PVC Joinery • Front door / Panel door / Profilee door / Safety door  
Interior door • Blinds • Insect screens • Shutters • Venetian blinds / Exterior / Interior  
Garage doors / Sectional / Rolling  
Glazing of balconyes / Cafes / Swimming pools • Glass facades • Alubond facades  
Glass shower cabins • Kiosks • Containers**

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