

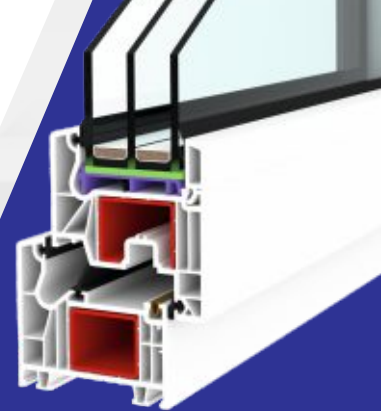


***SONAROL***



**PRODUCT  
CATALOG**

**Perfectherm** stands for modern windows made to the highest standards. **Perfectherm** windows will provide your interior with a unique character because we have taken care of every detail in creating them. The cores of the window profiles, available in four different colours (white, brown, dark grey and caramel), when open, they perfectly match the applied veneer and suit modern interiors. Thanks to the low rabbet, the window gains a larger area of the glass, and the room gets more light. The optimally selected number of chambers, the use of an additional middle gasket in the frame and sash, as well as a triple glazing system make **Perfectherm** windows meet the requirements of passive joinery.



## STYLISH

Two shapes of sash- design and classic, perfectly fit into modern constructions. Perfectherm windows give the buildings light and an unusual style.

## HARMONIOUS

The four colours of the profiles' core form a harmonious connection with a wide range of veneers. Perfectherm windows look great in both classic white and wood-like decorative films and modernist colours from the RAL palette.

## WARM

Six-chamber sash profiles with a depth of 80 mm and 48 mm three-pane glazing with a warm frame provide excellent thermal insulation of the window at the level of 0.78 W/m<sup>2</sup>K.

## TIGHT

The use of three gaskets in the sash and in the frame makes it possible to obtain very good insulation parameters.

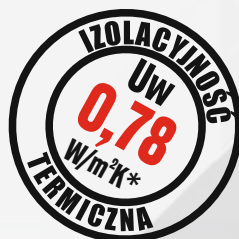
## SAFE

Carefully designed, durable construction, the use of anti-theft catches and systems with safety glass, effectively protect the building against burglary.

## RELIABLE

Window profiles in the A class thickness, locking fittings in the 5th highest class of corrosion resistance and large, specially profiled reinforcements guarantee reliability for many years.

\*Uw coefficient for the reference window, confirmed by a test certificate.



## SONAROL COMPANY

The **Sonarol Sp.j. Najda** partnership combines tradition and quality with innovation, offering a wide range of construction and agricultural products. The original and innovative solutions have enabled rapid growth of the partnership. Its products are offered by commercial partners throughout Poland and more and more often they are attracting business from demanding foreign clients from countries such as Germany, France, Italy, Belgium, Denmark, Belarus, Lithuania, Latvia, Czech Republic and the Scandinavian countries, who choose only the highest quality product range. Thanks to its innovative ideas, the partnership takes advantage of EU funding within the framework of the Regional Operational Programme for the Podlaskie Region.

OPTITHERM windows are more than standard. Our offer is designed for clients who are looking for window joinery with the enhanced parameters of thermal performance and the best value for their money.

80-mm, 6-chamber profiles with a wide external vent chamber guarantees durability and resistance to adverse weather conditions, in particular to high temperatures that can cause stress.



## ECOLOGY

The manufacture of our window profiles is based on zinc and calcium stabilisers that are environmentally and user-friendly.

## DIVERSITY

Softly rounded lines of sashes and frames, stylish glazing beads, black or grey window seals, packages with a wide range of window panes and warm-edge spacers offer various configuration options.

## RESISTANCE

Reinforced frames, high-class multipoint lock fittings and heat-sealed gaskets guarantee durability and long-term trouble-free operation.

## ENERGY-EFFICIENCY

6-chamber profiles of sashes, frames with an 80 mm mounting width and the possibility of using 3-pane packages with the coefficient of  $U_g 0.6 \text{ W/m}^2\text{K}$  which guarantees excellent thermal insulation.

## COMFORT

A wide selection of pane packages with the enhanced parameters of acoustic insulation and burglary resistance, the possibility of installing anti-burglary fittings and handles with a metal insert all serve to significantly increase user comfort and safety.



## A BRIEF HISTORY

Sonarol has been operating on the market since January 1997. In the early days, it was operating in the agricultural sector, manufacturing parts for agricultural machinery and conducting wholesale trading of these parts. In 2000, the activity of the partnership was expanded to include the production and sales of window-frames made of PVC and aluminium. The dynamically growing construction industry motivated the partnership to carry out further investments - the plant was expanded by adding modern automated machinery stock. The next step in the partnership's development was the acquisition of a polystyrene foam production facility in Jeziorko near Łomża in 2003. During that short period, Sonarol became the leading manufacturer of polystyrene foam



The CLASICTHERM windows guarantee the highest standards. The 6-chamber system of profiles, with 70 mm installation, is offered with a classic, straight non-flush casement and a slightly rounded semi-flush casement. The high-quality PCV mixture used in production of profiles extruded in the SONAROL company guarantees long-term durability, resistance to atmospheric conditions and easy maintenance.



## LEAD-FREE

Environmentally-friendly CLASICTHERM profiles are made using calcium-zinc stabilizers and are lead-free.

## ELEGANT

Symmetrical and gently rounded profiles, a stylish glazing bead with a black or gray seal and the possibility of ordering a glazing unit with a warm frame in various colours result in the windows gaining a unique appearance.

## DURABLE AND SAFE

The reinforcement enclosed within the frame and the possibility of using a Secustik handle and mushroom striker plates guarantee long-term and problem-free usage and protect against burglary.

## WARM

The 6-chamber profiles of frames and casements with width of 70 mm, as well as the possibility of using three-pane units with warm frame, width of 40 mm and heat transfer coefficient of 0,6 W/m<sup>2</sup>K ensure perfect thermal insulation.

## DREAMED OF

A wide selection of veneer colours, the possibility of varnishing in any colour from the RAL palette and freedom of shape choice make the CLASICTHERM windows adjustable to every design, even an extremely sophisticated one.

## SILENT

The 6-chamber profile system and application of three-pane glazing units ensure peace at home.



## A BRIEF HISTORY, CONTINUED

The unwavering dedication of the well qualified and stable personnel shown in the execution of Sonarol's strategy inspired the partnership owners to make a decision to launch a PVC profile extrusion line. The in-house production of profiles was started in December 2012. In April 2013 another polystyrene foam factory was purchased in Miłomłyn. This investment made it possible to expand the polystyrene foam board distribution range onto the territory of Northern and Central Poland. At present, Sonarol Sp.j. Najda has over 25 000 square metres of production space and employs over 500 people.

CLASICTHERM RENOVO windows feature a 6-chamber system of profiles with an embedding depth of 70 mm, designed in particular for the renovation of windows in historic buildings. It was created on the basis of the proven Clasictherm system. CLASICTHERM RENOVO carpentry and joinery enables the installation of windows without the need for removal of the old wooden frames, thus avoiding any damage that could be caused to the facade.



## TRANSPARENT

The reduced frame height allows for a comparable size of opening clearance in spite of leaving the old window frame.

## AESTHETICALLY PLEASING

The masking section of the profile – the “fin” with a height of 65 mm – creates an aesthetically pleasing band on the internal side of the window installed, thanks to which there is no need to apply any plasterwork.

## WARM

The two-chamber sealed glass unit with a width of 40 mm and a heat transfer coefficient of 0.6 W/m<sup>2</sup>K enables a significant improvement in terms of window heat insulation.

## DIVERSE

The possibility of installing windows with semi-recessed and recessed casements and choosing from a wide range of colours makes it easier to adjust the carpentry and joinery to the architecture of any given building.



## AWARDS

The Company - Sonarol Sp.j. Najda is rewarded each year for its dynamic growth and product offering. The most significant rewards and awards received by the Company:

- The “VIP Exclusive Joinery” diploma for the innovative window system “Perfectherm” as part of a programme entitled “Innovative Solutions in Joinery Sector”,
- Multiple awards in the “Business Gazelles” ranking for highly dynamic growth
- Multiple winner of the company ranking award “Forbes Diamonds” for companies located in the Podlaskie Voivodeship with revenues from 50 to 250 million PLN.

The door, being the showpiece of every home, constitutes an important element of architectural design and provides security for the inhabitants. **SONAROL** offers products distinguished by their high strength, solid design and diverse styles. PVC doors meet not only construction requirements, but the aesthetic ones as well. Thanks to a wide range of designs and colours, any client can create a door with a unique character, highlighting their individuality.



## WARM

Six chamber frame profiles, aluminium sill with thermal partition and the possibility of using panels with a width of up to 40 mm ensure excellent thermal insulation parameters.

## DURABLE

Closed 2 mm reinforcement inside the frame and the large aluminium reinforcement in the casement ensure many years of trouble-free use.

## SECURE

The Security Automatic slat lock with three locking points and the option to use an espagnolette with an additional lock is very efficient at preventing any visits from unwanted guests.

## IDEAL

A wide range of decorative panels, handles and recessed handles and many colour varieties to choose from will make the door chosen a showpiece of every home.



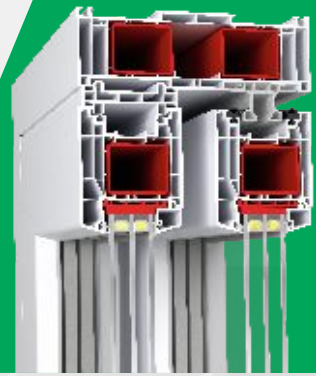
## CONSTRUCTION, INDUSTRY AND AGRICULTURE

In addition to PVC and aluminium carpentry and joinery, Sonarol Sp.j. Najda manufactures:

- polystyrene foam boards with various thermal insulation and mechanical properties adjusted to the client's needs,
- accessories for agricultural machines, used in everyday work at farms,
- machines and equipment for industry, such as: slitters for cutting and winding PVC film and polystyrene foam board production lines,
- steel structures, starting with building plumbing installations and ending with industrial hall steel structures,
- specialist body fittings for delivery vehicles, e.g.: for transporting windows or polystyrene foam.



Lift & slide HS doors are a solution that is being used more and more often in the building industry. They ensure a convenient passage from indoors onto terraces or balconies or into the garden. The systemically designed profiles make it possible to build structures with a length of up to 5 metres. A door of such a size ensures a great influx of daylight, a panoramic view of the surrounding landscape and unique interior design. The large glazed surfaces and wide door wings ensure comfort of use as well.



## PROFILES

Lead-free profiles are produced using zinc and calcium stabilisers.

## REINFORCEMENTS

Large and specially profiled reinforcements.

## GLASS PANES

Sealed glass units with a width of 24 and 48 mm and heat transfer coefficients of 1.1 W/m<sup>2</sup>K and 0.5 W/m<sup>2</sup>K. In case of large form factors, 6 mm thick glass panes are used in sealed glass units.

## FITTINGS

The system of fittings lifts and slides both small and large casements with the same degree of precision, even those with a weight of up to 300 kg.

## STRIPS

Aluminium strip with thermal partition.

## COLOURS

A wide range of colours, both in wood-like and single-colour patterns.



## SLIDING SYSTEMS

The product range of Sonarol includes two sliding systems – HS and PSK. The former is a lift & slide system based on the profiles intended specifically for designs of this type. In this system, the wings are located in parallel and move on special trolleys along the guide. This system is perfect for terrace doors with large glazings. PSK, on the other hand, is a tilt & slide system. In this system, the wings are placed in a single line. In order to move the wing, it has to be tilted and pushed onto the right track first. Clasictherm, Optitherm and Perfectherm window profiles are used for manufacturing doors of this type. In designs of this type the door wing weight limit is 200 kg.



# SONAROL

ALUPROF

The ALUPROF aluminium profiles enable the construction of many different kinds of windows and doors depending on the particular application and detailed requirements regarding functionality, aesthetics, thermal insulation and anti-burglary capacity. They include both the designs without thermal insulation, used for building internal partition walls and doors or balcony enclosures, and the solutions based on thermally insulated profiles. A significant proportion of thermally insulated systems is available in the "HI" version, characterised by special inserts inside sections that reduce the heat transfer coefficient.

## MB-60E



## MB-70



## MB-70HI



## MB-104



## MB-86



The design with the highest degree of thermal insulation available in the product range of SONAROL is the MB-104 Passive system where innovative material and technical solutions have been applied. This system fits perfectly with the trend of energy-efficient and passive building construction and is certified by PHI Darmstadt. The MB-86 and MB-70 door-and-window systems are products with very good parameters that satisfy the different needs of their users.



### FITTINGS



PVC windows are equipped with multi-point locking fittings, of the renowned MACO company, belonging to the MULTImatic series, that have been adjusted specifically to the carpentry and joinery of Sonarol. These fittings ensure perfect micro-ventilation conditions thanks to the possibility of placing the handle at the 45-degree angle position, resulting in the casement moving 10-13 mm away from the frame. The highest, 5th grade of anti-corrosion coating ensures that the fittings remain fully functional for a long period of use. The MACO fittings provide a tremendous range of configuration possibilities, for example the option to install the handle at the bottom frame of the casement, either vertically or horizontally, with low placement of the handle. This is of particular importance in case of disability-friendly construction.



# SONAROL

ALUPROF

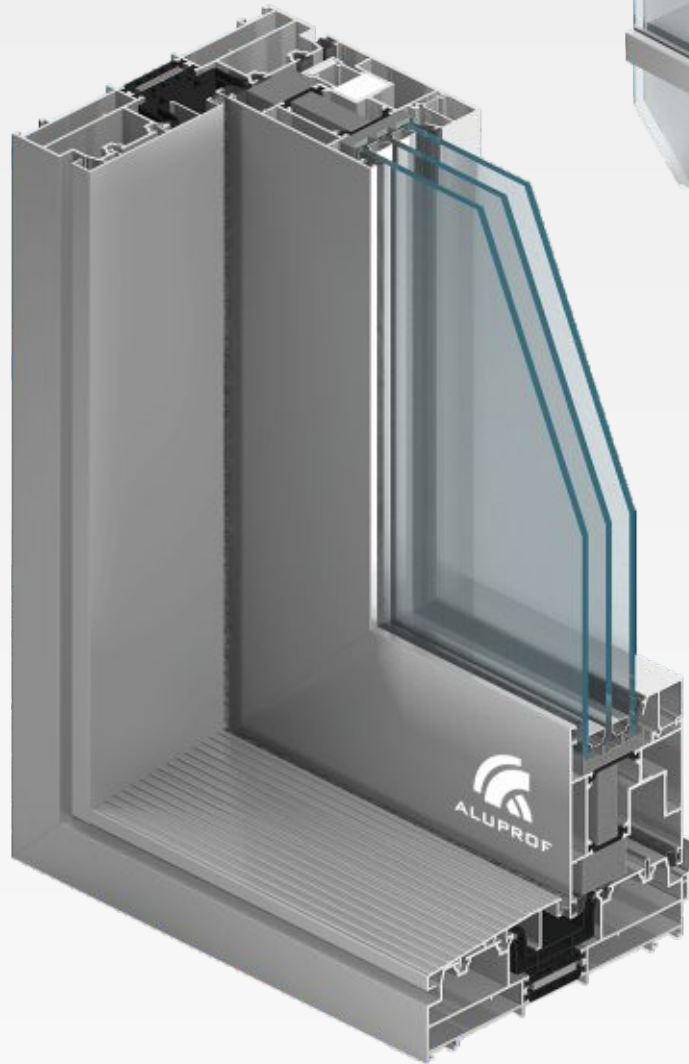
ALUPROF systems offer not only designs with the most common opening methods – opening out and tilting – but also lift & slide terrace doors, sliding windows and doors, revolving windows, windows opened outwards or windows dedicated to specific facade solutions. The lift & slide doors are a perfect choice for connecting rooms and winter gardens with outdoor spaces or providing a convenient exit to the terrace. The profile design enables the creation of large sophisticated doors, featuring single- or two-chamber glazing, and the materials and technical solutions applied enable achievement of a high level of thermal and acoustic insulation.

## MB-45



The MB-45 is a modern aluminium system used for making internal and external architectural structural elements that do not require thermal insulation, such as various kinds of partition walls, windows and doors, including those sliding automatically and manually, swing doors, vestibules, display windows, cashier cubicles, showcases and spatial designs.

## MB-77HS



## MB-SR50N



The façade systems are used for building the glazed façades of buildings such as banks, hotels, offices, office buildings, car showrooms, sports halls, etc. They are also used for creating multiple spatial designs and roof glazing, the function of which is to provide appropriate illumination inside buildings and create an appropriate atmosphere and user comfort there. They constitute an excellent tool for shaping modern architecture and executing bold designer visions. Within the scope of this group, the mullion & transom systems enjoy the greatest popularity.



## AIR INLETS



The air inlets are an addition to windows that are used to adjust the circulation of the air indoors. The product range of Sonarol includes a wide range of products from brands such as VENTEC, VENTAIR II, AERECO, Maco and Brookvent. This diversity makes it possible for us to meet the expectations of clients irrespective of the extent of infiltration they need in a given room. Among the air inlets that we offer, can be found both manually and automatically adjusted ones. Those deserving particular attention are the hygro-controlled air inlets, which adjust the air flow depending on the current humidity. Our range also includes air inlets with increased acoustic insulation properties, offering protection against any unwanted noise coming from the outside.

When designing a building, it is important to consider fire protection and smoke extraction systems. As a result of technological progress, solutions such as curtain walls, smoke ventilation windows or smoke-proof doors, are able to protect human life and health. Aluprof offers smoke ventilation and fire protection systems, which allow you to make various elements of the installations responsible for the fire zone structures in buildings and guarantees the appropriate conditions for the evacuation of people.

## MB-60 E EI

This solution is based on aluminium profiles with a thermal separator of the MB-60E, the construction depth of sections is 60 mm. The structure's fire resistance is guaranteed by the fire insulation elements mounted in the inner chambers of the profiles. In addition, structures are equipped with an expanding waterstop, which in the event of a fire serves as an impenetrable barrier.

The system allows for the use of all the typical fireproof glass of E15 and E130 with a thickness in the range from 5 to 41 mm. Unlike other fireproof systems, the MB-60 E EI window pane is mounted using glazing beads from the inner face. Special steel accessories protect the glass from falling out during the event of a fire.

## MB-78 EI

The structure of the MB-78 EI system is based on heat-insulated aluminium profiles with a depth of up to 78 mm. They are characterised by a low heat-transfer coefficient due to the addition of special profiled thermal separators with a width of up to 34 mm. Resistance to high temperatures is provided by special elements of fire insulation using gypsum board or CI inserted in the internal chambers of profiles and in the insulation space between the profiles and steel accessories and fittings.



## INTELLIGENT DOOR CONTROL

Solutions for entrance doors from the GU group introduce a new quality in terms of safety and user comfort. This is guaranteed by a unique combination of the multipoint locking system GU Secure Automatic with A-Öffner or A-Öffner Servo engines. This innovative solution allows you to control the door using a fingerprint reader, code keypad, RFID reader, or Bluetooth&Code keyboard. The concept of an entrance door is ideal in architectural barrier-free construction in accordance with the DIN 1840 norm.



## HANDLES

**JOWISZ  
HANDLE-HANDLE**



**JOWISZ HANDLE-HANDLE  
FOR INSTALLATION  
UNDER BLINDS**



**JOWISZ  
HANDLE - FLAT HANDLE**



**JOWISZ  
HANDLE - P-SHAPED HANDLE**



## RAIL HANDLES

**OVAL  
RAIL HANDLE**



**RECTANGULAR  
RAIL HANDLE**



**STRAIGHT  
RAIL HANDLE**



**SP  
RAIL HANDLE**



**MA  
RAIL HANDLE**



**SE  
RAIL HANDLE**



**WB  
RAIL HANDLE**



**VT  
RAIL HANDLE**



**CW  
RAIL HANDLE**



**KW  
RAIL HANDLE**



**PR  
RAIL HANDLE**



## PANELS

**BASIC LINE  
BL-02(8)**



**BASIC LINE  
BL-07(3)**



**BASIC LINE  
BL-20(1)**



**ECONOMIC  
EK-02(A)**



**ECONOMIC  
EK-04(A)**



**ECONOMIC  
EK-17(A)**



**ECONOMIC  
EK-47(A)**



**ECONOMIC  
EK-48(A)**



**NEW LINE  
NL-EK 6**



**NEW LINE  
NL-EK 7**



**NEW LINE  
NL-EK 13**



**NEW LINE  
NL-EK 41**



## PANELS

The external doors, made of either PVC or aluminium, can be executed with decorative panels, which will provide the entrance with a unique and elegant look. Within that scope, SONAROL uses the services of the leading door panel manufacturer on the Polish market, thanks to which it provides a wide selection of patterns in different styles and price ranges. In the production of doors, traditional insert panels are used as well as attachment panels characterised by unique aesthetics and a modern look, which have been gaining in popularity recently.

## ALUMINIUM HANDLE



AVAILABLE COLOURS:

- GOLD
- WHITE
- GREY
- BRONZE

## MODERN HANDLE



AVAILABLE COLOURS:

- GOLD
- WHITE
- BRIGHT SILVER
- DARK SILVER

## SECUSTIC HANDLE



AVAILABLE COLOURS:

- GOLD
- WHITE
- SILVER
- BRONZE

## PLUTON HANDLE WITH BUTTON



AVAILABLE COLOURS:

- GOLD
- WHITE
- GREY
- BRONZE

## SOUL HANDLE



AVAILABLE COLOURS:

- GOLD
- WHITE
- SILVER
- BRONZE

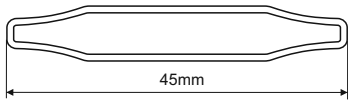
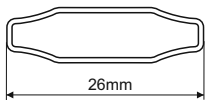
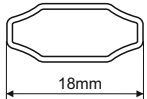
## PLUTON HANDLE WITH KEY



AVAILABLE COLOURS:

- GOLD
- WHITE
- GREY
- BRONZE

# MUNTINS



Muntins are a decorative element of windows. SONAROL offers its clients both the structural muntins, available in different widths, colours and connection methods, and the glued-on and Vienna-style muntins. The last ones are a combination of a muntin placed between the glass panes, similar to a spacer bar, and a decorative muntin glued onto the pane.



## VENEER COLOURS



The veneer colours present are intended for illustrative purposes only and can differ from the actual ones.



## HANDLES

Sonarol takes care of every detail. Its product range includes a variety of handles, the styles and colours of which are adjusted to its carpentry and joinery products. Standard aluminium handles, handles with modern and classic shape, handles fitted with special anti-burglary mechanism and handles with a button or key lock are available. The role of the lattermost ones is to protect against unwanted opening of windows, particularly by little children.

## STANDARD COLOURS



**POLISH PINE**



**GOLDEN OAK**



**NUT TREE**



**MAHOGANY**



**DARK OAK**



**ANTHRACITE**

## COMPLEMENTARY COLOURS



**WINCHESTER**



**MERANTI**



**TIAMA**



**GREY**



**SMOOTH ANTHRACITE**



**CHOCOLATE BROWN**



**OAK SHEFFIELD LIGHT**



**OAK SHEFFIELD GREY**

## NON-STANDARD COLOURS



**PINE TREE**



**LIGHT OAK**



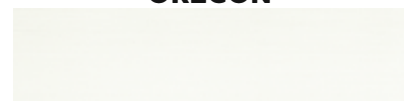
**OREGON**



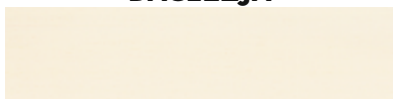
**DAGLEZJA**



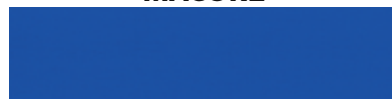
**MACORE**



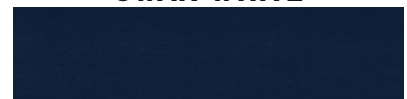
**SWAN WHITE**



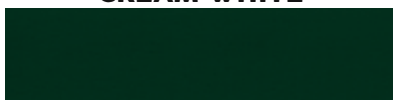
**CREAM WHITE**



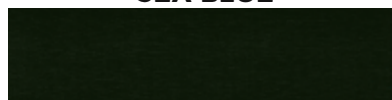
**SEA BLUE**



**ROYAL BLUE**



**FOREST GREEN**



**DARK GREEN**



**AUTUMN RED**



**QUARTZ GRAY**



**PALISANDER**

The veneer colours present are intended for illustrative purposes only and can differ from the actual ones.

# FRAMES



**LIGHT BRONZE**



**DARK BRONZE**



**WHITE**



**GREY**



**BLACK**



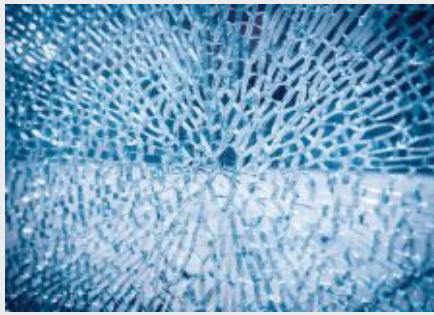
## VENEERS

SONAROL's carpentry and joinery feature a variety of colours. Our range includes a wide range of veneer colours, both in wood-like and single-colour patterns. Next to the most popular ones, such as golden oak, walnut, mahogany or anthracite, non-standard colours are also available. It is possible for us to make varnished window frames for a custom order. Within the scope of this technology the range of colour selection is tremendous. The whole RAL colour palette is at your disposal. Both veneering and varnishing can be executed on one side, on both sides or in a two-colour scheme.

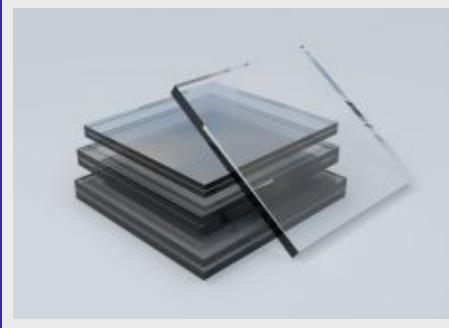
## TYPES OF GLASS

**toughened glass**

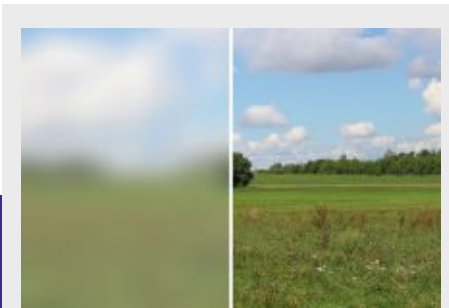
Toughened glass is the first step towards increasing the safety of windows. Toughened glass panes are more resistant to mechanical damage and extreme temperatures. In case of breaking, the glass pane shatters into very small pieces with blunt edges, protecting against cuts.

**reflex**

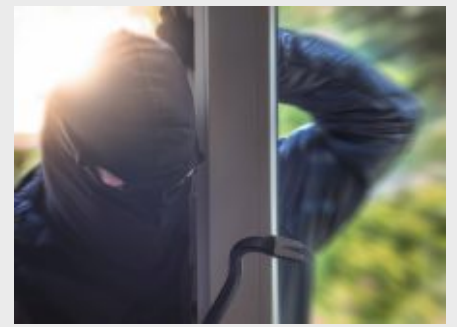
Anti-reflective glass features a special coating that reflects light instead of accumulating it inside a building. This prevents excessive accumulation of heat indoors and, additionally, has an impact on the aesthetics of the architecture, providing the windows with a mirror-like appearance.

**antisol**

Antisol is tinted glass that we offer in four colours: graphite, bronze, green and blue. As well as having an extraordinary colour, the panes made of this glass are characterized by an increased solar energy absorption, protecting against excessive light intensity and temperature in a given room.

**safety glass**

Safety glass protects bystanders against injury in the event of a glass breakage thanks to the application of polyvinyl butyral film, holding the glass fragments together. Such a glass pane also features increased strength thanks to the application of two 3 mm thick glass layers.

**anti-burglary glass**

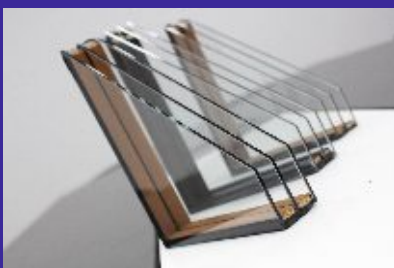
The most commonly applied anti-burglary glass panes belong to the two resistance classes - P2 and P4. Both of these kinds of glass panes are made of two layers of 4 mm thick glass and, accordingly, two or four layers of film. Such glass panes are difficult to break and can withstand even strong deliberate impacts.

**decorative glass**

Decorative glass enables the customising of the window appearance to the style of the whole building. Ornamental glass types, as well as having an aesthetic value, allow for increased privacy by deforming and blurring the image coming through the glass pane. Opaque glass panes can be applied for the same purpose.

**SEALED GLASS UNITS**

In order to prevent heat loss through the window, sealed glass units are applied instead of single glass panes. The unit is made of several (from 2 to 4) panes of glass, of which at least one has a thermofloat coating, allowing the heat transfer to the inside and preventing heat transfer to the outside. The glass panes are separated from one another by means of spacing frames and sealed, in order to create hermetic spaces between the panes, filled with inert gas that increases the thermal insulation properties of the unit. Until recently, the most popular sealed glass units featured two glass panes (single-chamber units), but they are increasingly being replaced by units with three glass panes (two-chamber units), which have much better thermal insulation parameters. When configuring a sealed glass unit you can use almost any kind of glass panes, which enables the adjustment of the window's features to the client's individual needs.



## ORNAMENTS



**CHINCHILA BROWN**



**DELTA BELGIJSKA**



**KORA**



**MASTER CARRE**



**NIAGARA**



**CREPI**



**FLUTES**



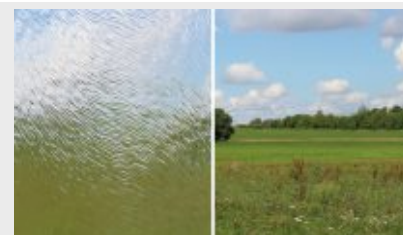
**KATHEDRAL**



**KOCIE ŁAPKI**



**KURA**



**CHINCHILA**



**DELTA POLSKA**



**KORA BROWN**



**MASTER POINT**



**WATER DROP**



## FRAMES

The frame between glass panes is an element that enables the maintenance of the spacing between them. Due to increased heat conductivity, standard aluminium frames are among the coldest window elements. At the place where the panes are assembled there can appear the so-called thermal bridge, through which heat is lost. In order to avoid this phenomenon from occurring, Sonarol offers so-called "warm frames" made of plastic, distinguished by thermal insulation parameters that are much better than in case of standard frames. The application of "warm frames" prevents to a significant degree the losses of heat and limits water vapour condensation by excluding large temperature differences at places where sealed glass units are joined.

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