



- + Heat-insulating
- + Comfort
- + Innovative
- + Aesthetics
- + Ecology

Quality windows
for a better quality of life

Security

Complete break-in protection system

Protection and security are two fundamental human requirements. If you want to feel secure within your own four walls, you can't leave anything up to chance. You should go by the motto "Trust may be a good thing, but control is better" and insist on a window construction that inhibits break-ins because fifty percent of all burglars get in through the window, not the door. They simply lever out the window in a matter of seconds, but you can prevent this by choosing windows that inhibit break-ins. With windows made of GEALAN profiles, the installation depth and enhanced material strength are convincing security arguments, along with additional barriers and secure screw fittings in the window frames and casements. To be completely on the safe side, we put our windows to the acid test. An authorized test institute has certified that our windows offer security in regard to their construction and various opening mechanisms in all intended areas of application. You can be sure of that.



Thermal insulation

Warm, comfortable and efficient

Windows made of GEALAN profiles are the ideal energy savers because even the natural insulating properties of PVC guarantee outstanding thermal insulation. These qualities are enhanced even more by the extended installation depth of up to 83 mm and the multi-chamber profile construction with up to 6 chambers. With windows made of GEALAN profile systems, you save a lot of money and considerably improve living comfort while making a significant contribution to environmental protection at the same time.



Noise Protection

For a better quality of life

Too much noise damages your health. That's why noise protection and sound insulation have become an important health aspect. Windows made of GEALAN profiles with multi-chamber technology provide effective protection against excessive noise. With the corresponding glazing, they have good sound insulation properties. In this way, windows made of GEALAN profiles considerably improve noise protection and sound insulation, thus enhancing your quality of life.

The main sources of noise include urban road transport, manufacturing enterprises and railroads crossing urban area. Most of noise is emitted by major highways, in the vicinity of which noise levels reach 80 dB during the daytime. According to sanitary standards, the noise level in residential areas must not exceed 40 dB during the day and must not be greater than 30 dB at night. It is just the sound volume values produced when we talk quietly. In a city center, in busy main streets, the noise level may be as high as 90 dB. Owing to the construction features of GEALAN profile systems, these windows meet highest sound insulation requirements.

Windows made of GEALAN profiles with a sound insulating glass pane will ensure comfort and coziness and will allow you to sleep peacefully even if trains run or airplanes fly close to your home.



Levels of noise emitted by vehicles:

- Motorcycle – up to 70 dB
- Car – up to 75 dB
- Truck – up to 90 dB
- Aircraft – up to 140 dB

S 8000

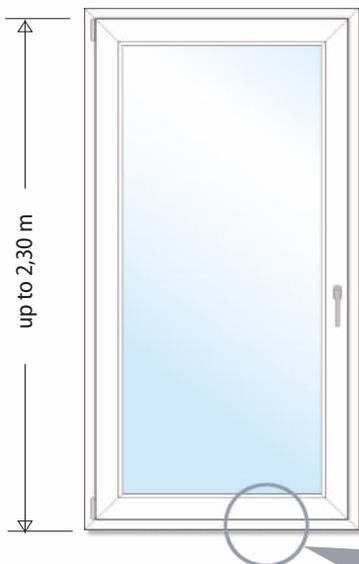
Quality without compromise

In the system S 8000, you can select from 5 or 6-chamber profiles. Their construction allows the use of large-sized steel reinforcement, which ensures excellent stability and strength complying with the requirements for construction objects with large window structures. The number and position of the chambers determines enhanced resistance to thermal conductivity and improves sound insulation performance. The wide surface of the profile facilitates the maintenance of the window.

Facts and advantages

- + Profile width – 74 mm
- + Double sealing system
- + 5 or 6 chambers
- + Excellent thermal and sound insulation
- + High stability
- + Possibility to use GECCO 3 and GECCO 4 ventilation systems
- + ACRYLCOLOR and wood décor

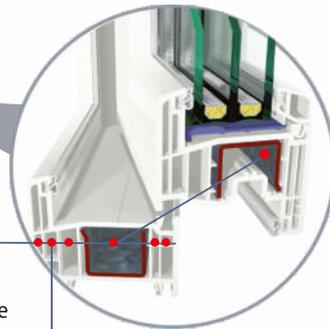
Enhanced statics of large structures



- The maximum window height depends on the width and also on the total area of the window structure.
- The greater the window width, the greater the load to which its structure is exposed.
- Strong steel reinforcement determines resistance to deformation even of large window structures.

An increased stability of window structures is provided by wide-profile steel reinforcement inside the main chamber of the profile.

Thermal and sound insulation performance depends on the number of profile chambers and their structural properties.



Stability ensured by steel

- Wide profiles of high-quality steel used for reinforcement ensure excellent stability and strength of window structures.



Design

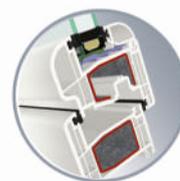
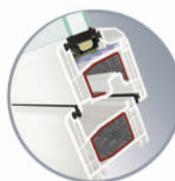
Combination of shapes and functions

Windows and doors are prominent details of the interior and exterior of your home, so they not only should meet the strict technical requirements, but also simply look good. The attractiveness of a window mainly depends on the shape and color of the window profile. S 8000 is an example of a classic system and is remarkable for its bright classic lines and rounded contours. The variety of glazing beads and a wide choice of profile colors will allow the implementation of even the most sophisticated architectural and design projects.



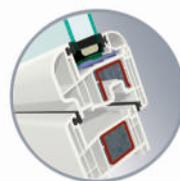
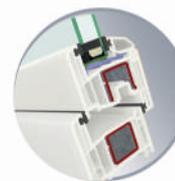
„Classic“

„Design“



5-chamber system

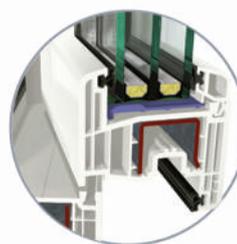
5-chamber system



6-chamber system

6-chamber system

Thought out down to the last detail



→ The variety of glazing bead shapes offered – ranging from rounded to reservedly angular ones – will inspire your windows with a unique identity.

S 8000 front doors

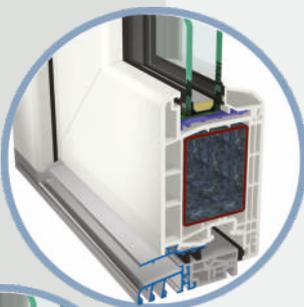
Strong and attractive label of the house

Beautiful front doors are justly considered the business card of the house and expression of its architectural style. The doors provide the façade with its original style, while they must also be strong and secure, and resistant to environmental impacts. In order to achieve the highest S 8000 system door strength and stability performance, the company GEALAN designed the inner partitions of the profile in such a manner that it became possible to use wide-profile reinforcement. 74 mm wide profile middle partitions and their position allowed increasing the rigidity of the applied steel fittings by 30 %. A cavity for lock is milled in the reinforcement. The threshold holders used in other GEALAN systems are also suitable for the system S 8000 and ensure a solid connection between the frame and the threshold. In order to avoid deviations of the sash and to ensure the stability of angles, welded joint angles are used. The wide range of component parts allows to produce doors of different configurations and types. You can use a variety of hardware and locks as well as a variety of door sash panels. They can be opened in both outward and inward direction. Door sashes are manufactured not only from white but also from ACRYLCOLOR profiles, as well as from the profiles with wood décor and colored film texture.



Advantages

- + Wide-profile reinforcement in the frame and sash
- + High strength and stability
- + Excellent thermal and sound insulation
- + A narrow visible profile part
- + Choice variety
- + Reliable burglary protection



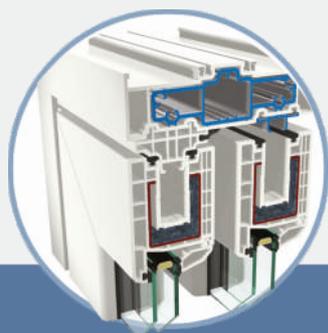
PVC door threshold

20 mm in height, the impact-resistant door threshold of PVC perfectly meets the modern concept of threshold-free housing construction designed for handicapped people. Such a threshold is the finishing touch of the general system of GEALAN thresholds of aluminium, aluminium with a heat insulating gasket, and durable glass fiber with high thermal transmittance resistance indicators. The low thermal transmittance level of the PVC material ensures excellent thermal transmittance performance of the threshold made of it, thus reliably protecting the lower door part from heat loss.

S 8000 lift/slide doors

Light and comfort

Elegant lift/slide doors with the S 8000 system are an excellent solution to create interfaces between rooms and patios, balconies or gardens. But GEALAN lift/slide doors can do even more. Their special construction means there are no limits to your use of space. When you open the door, it is a simple lift and slide away action for its panel. The panels and frames are well reinforced, which makes our doors very stable. Their 74 mm profile mounting depth and four-chamber geometry mean excellent thermal insulation at the profile level. Triple glazing of up to 44 mm ensures an excellent thermal insulation rate for the door. Tests by Rozenheim Institute for Window Technology prove that our doors ensure the best air-tightness and water-tightness.



The special mechanism of GEALAN lift/slide S 8000 doors is very easy to control. The almost flush threshold removes a visual barrier between the indoor and outdoor spaces.

Available décor

Colours are very important for large windows and doors. In addition to white, GEALAN lift/slide doors are, therefore, available in a wide range of ACRYLCOLOR tones, and also with wood décors in various patterns. Another option is facing aluminium shell skirting suitable for lift/slide doors in various colours.

S 9000 combined system

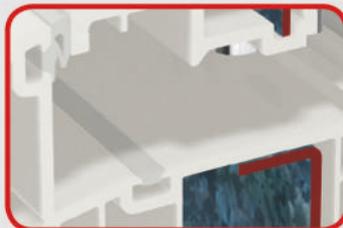
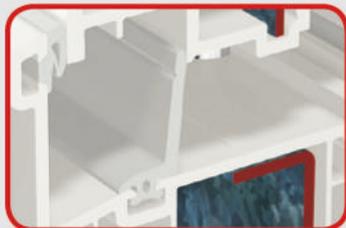
All advantages in one system

As a combined system, GEALAN's new S 9000 system combines the characteristics and advantages of central and rebate gaskets with its installation depth of 82.5 mm. The huge installation depth, six profile chambers in window frame, sash and mullion and three end-to-end sealing levels guarantee outstanding thermal insulation. This way, the windows themselves meet the highest requirements.

Optimised for using STV®
in order to dry bond window
pane and sash overlap.



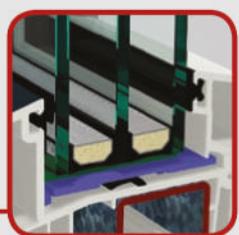
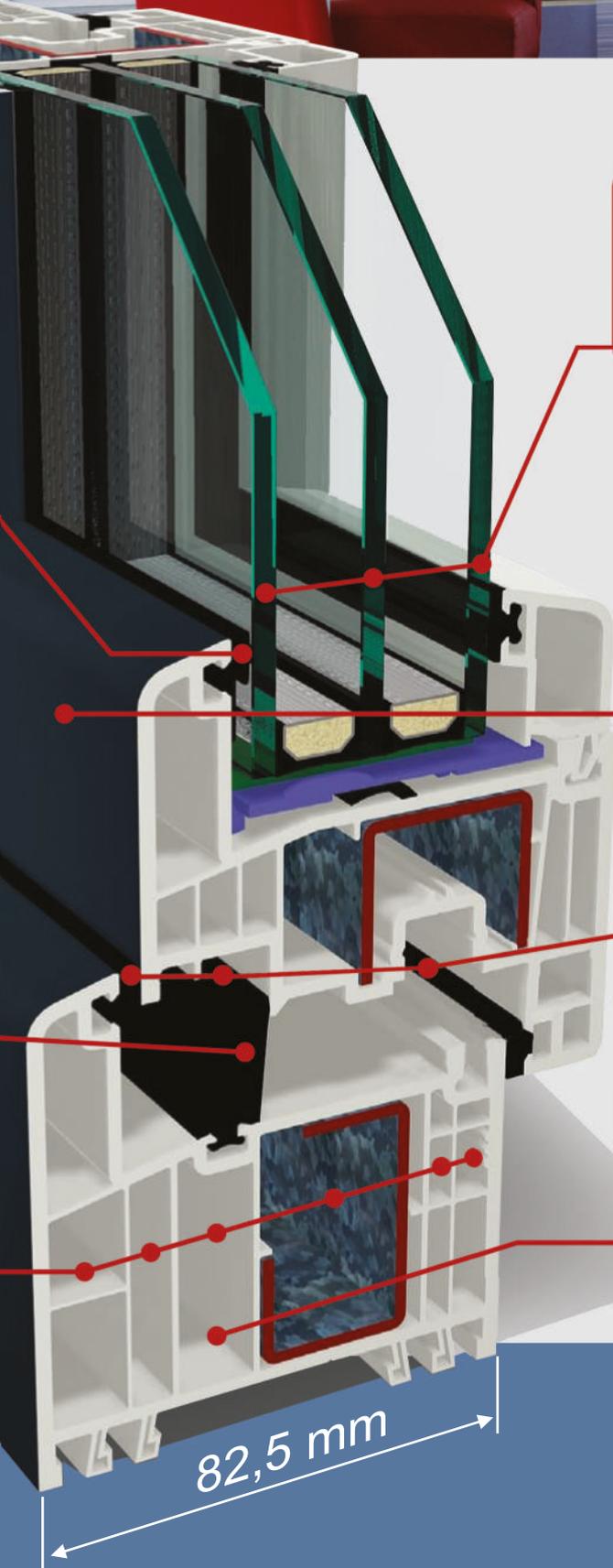
The external acryl-glass coat
ensures high resistance to scratch-
ing and a smooth surface that
is easy to clean and maintain.



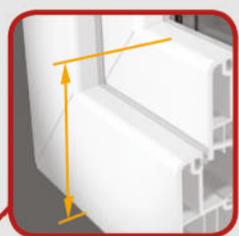
The centre sealing level in the window frame provides an essential contribution to enhancing the thermal insulation. Additionally, it protects the fitting elements against the ingress of moisture resulting in an enhanced opening behaviour, particularly at low outside temperatures. Optionally, S 9000 is also available as a rebate seal version with two sealing levels.

Very good thermal and sound insulation
through 6-chamber design and large
installation depth for window frame and sash.





Suitable for supporting triple functional glazing with a maximum thickness of 52 mm (STV® 54 mm).



Narrow profile elevation width and design-oriented 15° incline for timeless visual appearance.



Intelligent sealing concept with three end-to-end sealing levels.



Enhancement of the thermal insulation possible by using the foaming technology IKD®.

82,5 mm

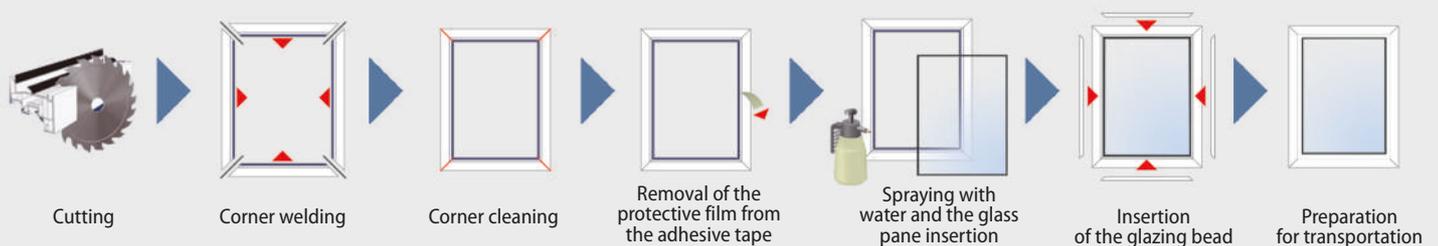
STV[®] - the innovation for bonding panes

Innovative and simple

The bonding technology developed by GEALAN – STV[®] (static dry glazing) – involves bonding glass and profiles with an extra adhesive tape designed for window construction whilst retaining the usual block setting of the glass. By bonding the pane with the profile, the stiffness of the glass pane is transferred to the profile and the entire system becomes more stable in itself. Standard elements can therefore be manufactured entirely without steel reinforcement. Alternatively, more stable elements can be manufactured in conjunction with steel and GEALAN's STV[®]. In addition, in the area of special constructions, it is possible to considerably improve the stiffness of round arches and inclined windows.



Standard production process:



Enhanced statics

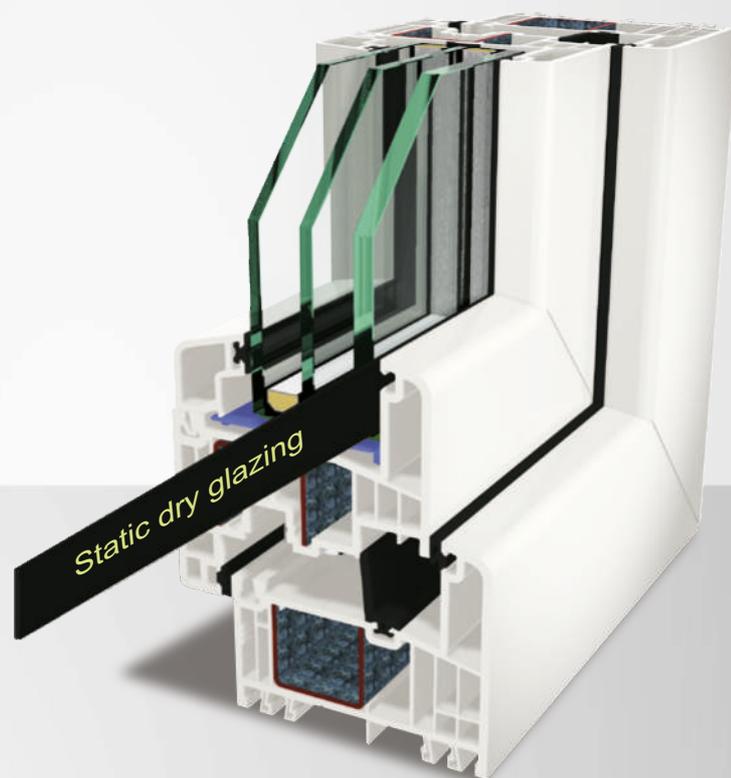
Thanks to STV® the static dry glazing

STV®

Static
dry glazing

The STV® adhesion technology (static dry glazing) developed by GEALAN comprises the glueing of glass and sash profile while maintaining the usual use of glazing blocks. For this, a high-performance adhesive tape specifically designed for window construction is used. By glueing the glass to the sash profile, the stability of the glass window is transferred into the sash and the entire system becomes more intrinsically stable. This way, elements can be produced in standard sizes without using any steel. In the combination STV® with steel in the sash, particularly large window elements can be produced.

- + The combination of STV® technology and traditional steel reinforcement allows for producing unprecedented element sizes.
- + Time-consuming adjustment and re-adjustment work on the window can be minimised.
- + Enhanced thermal insulation by relinquishing the steel bracing element for normal-size elements.
- + Even after having been used for a long time, windows with STV® technology close as precisely as a safe and the comfort of operation is increased.



No change to workflow

Assembly and processing can proceed normally without costly investment in new equipment. Cutting, welding, corner cleaning and glazing can be carried out with only minimal changes to the workflow.

Replacement of the glass pane with STV® technology can be made without time consuming procedures and any special expertise. The defective glass is replaced with a few simple steps.

Process of replacement glass pane with STV®:



Increased thermal insulation

More comfort, lower costs

IKD®

Intensive core
insulation

GEALAN IKD® technology means the profile chamber is filled with PUR foam that ensures thermal insulation. This successful technology, which has been around for some time, enhances the thermal insulation properties both of profiles and of any structures they are used to assemble. The profile chamber filled with foam and no steel elements prevents convection, and the profile's surface temperature goes considerably up, too. GEALAN IKD® profiles are delivered pre-injected with thermal insulation foam. With STV® and IKD® technologies, normal-sized elements can be manufactured without steel reinforcements. This ensures an improvement of up to 0.2 W/m²K in the thermal transmittance rates of the window (depending on the profile combination). The main chamber of the casement profile filled with insulating foam can bring the rates down to $U_f < 0.95 \text{ W/m}^2\text{K}$. Windows with IKD® and energy-efficient glazing ($U_g = 0.5 \text{ W/m}^2\text{K}$, assembled with the heat-tight SWISSPACER ULTIMATE spacer bar) achieve a thermal transmittance coefficient of $U_w = 0.72 \text{ W/m}^2\text{K}$. Such window assemblies meet the standards for passive houses.



ACRYLCOLOR

Long live colours!

Coloured windows are a special distinguishing feature that forms unique images of buildings. Coloured window profiles allow the implementation of even unusual design projects and take into account regional architectural features. The palette of shades meets the most demanding needs: you can choose the most suitable colour ranging from noble white to luxurious silver. The high quality standard of ACRYLCOLOR is approved by the RAL quality mark. We manufacture coloured profiles under a specific co-extrusion technology in whose production process the white PVC core is fused with coloured acrylic layer. The outer coloured acrylic layer is resistant to mechanical damage and the negative effects of the atmosphere. The silky unglazed layer is non-porous, so it does not collect dust and dirt, it does not peel, scale, and does not require painting. ACRYLCOLOR windows are easy to maintain. ACRYLCOLOR windows do not fade and you will not notice any changes in the colour for decades.



Standard ACRYLCOLOR tones



Non-standard ACRYLCOLOR tones (only for S 9000)

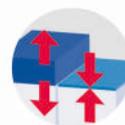


1 RAL 7015*	7 RAL 9006
2 RAL 7040	8 RAL 3011
3 RAL 8022	9 RAL 7039
4 RAL 9007	10 DB703**
5 RAL 7016	11 RAL 6009
6 RAL 8014	12 RAL 9010

ACRYLCOLOR advantages:



Non-vented
and non-laminated



The acrylic layer
is 0.5 mm thicker than
any varnish or paint



Resistance
to mechanical
damage



The PVC core is consolidated
with the coloured acrylic layer
into a homogenous mass



The layer does not
peel or scale even after
a long time



Easy and simple
maintenance

The ACRYLCOLOR tones palette is regularly updated. Therefore, when choosing the colour, please contact your service manager.

* Unconventional colours (for the profile system S 9000 only) ** Additional colours (for the profile system S 9000 only)

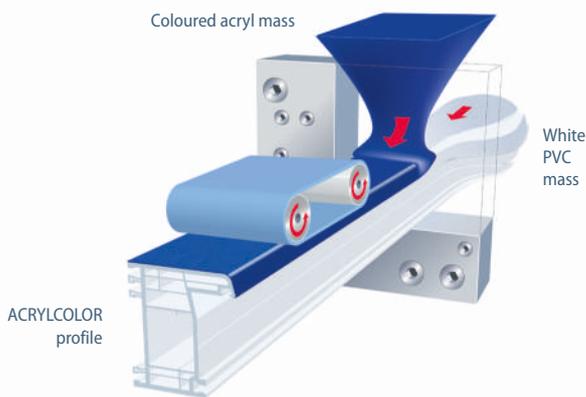
Unique technology

Unique surface structure

During the dyeing procedure of co-extrusion, the white PVC base bodies and the dyed acrylic glass are inseparably bonded with one another in a single work step. Fusing both of these materials produces a semi-matt, dyed external profile surface that withstands the effects of the weather with ease. GEALAN has been producing its ACRYLCOLOR profiles in the co-extrusion procedure for almost 30 years. GEALAN is setting standards by using this procedure, because it is essentially very different from the otherwise conventional dyeing procedures. Windows featuring ACRYLCOLOR profiles also satisfy the most stringent technical and functional requirements. The external dyed layer of acrylic glass is twice as hard as the PVC surface of white windows. It is highly scratch-resistant and is to a great extent resistant to the effects of the weather. The semi-matt, smooth and non-porous surface is insensitive to dust and dirt accumulating. There is no need for spalling, chipping and laborious subsequent coating. ACRYLCOLOR windows require virtually no maintenance and are extremely easy to care for.

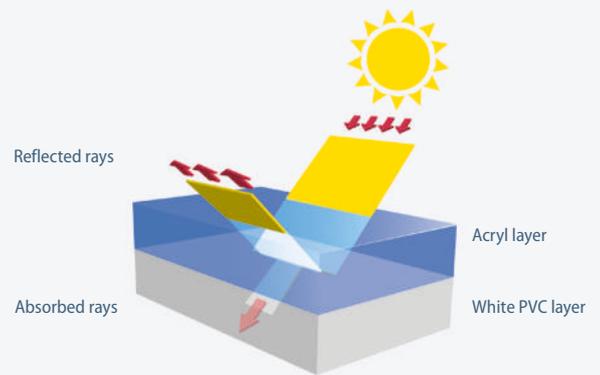
Co-extrusion procedure

During the co-extrusion procedure, the white PVC base bodies and the dyed acrylic glass (PMMA) are inseparably fused with one another. Acrylic glass is a high-quality product, which has proven its qualities in industrial sectors such as the automotive industry (tail-lights) and interior design. The plastic profile acts as a carrier material, while the thin layer of acrylic glass secures the profiles' colouring.



High reflection possibility

The acryl layer is permeable to sun rays, so the core white profile reflects a major part of sun rays penetrating the acryl layer. Owing to this feature, the coloured profile heats up similarly to a white one.



Wooden décors

A natural highlight

For everybody appreciating a natural appearance without compromising on the advantages of state-of-the-art window technology, there are plastic windows in wooden décor look. This is the right choice. Regardless of whether for refurbishing a half-timbered house or a planned new building – GEALAN wooden décor windows convince from a visual and functional point of view. They lend themselves as a classic stylistic element when refurbishing old houses and regarding landscape-related design. Décor windows are characterised by all positive properties of state-of-the-art plastic windows and simultaneously the decorative effect of wood.



A large selection of wood patterns and colours means you can choose exactly what you need. At the moment, we offer to choose desired lamination from more than 30 different wood patterns.

The wood patterns and colour palette is regularly updated. Therefore, when choosing the pattern and colour, please contact your service manager.

Variety

Unlimited facilities

GEALAN profiles can be laminated from two, inner and outer, sides using a brown mass profile. This solution improves the look of the window and, even when opened, the window looks completely natural – the wood décor perfectly adapts to the overall picture. A modern window is constructed with regard to the type of the building and individual preferences of the customer.

Select the surface look appropriate for you and your home from a broad range.



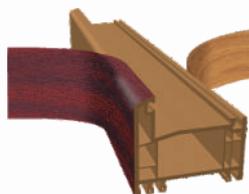
A variety of coloured films

A wide choice of colours and patterns. The ideal wood texture imitation. A variety of colours and décors.



Two-sided lamination

The profile lamination from both sides with different films is an excellent opportunity for harmonising the window colour both with the façade and interior of your house.



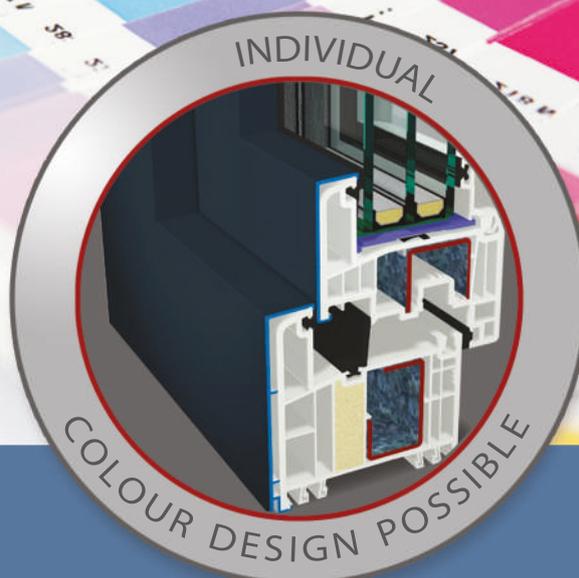
ACRYLCOLOR + laminate

The possibility to laminate the ACRYLCOLOR profile from the inner side.



Wide range of colours with aluminium

Windows made of the S 9000 profile system and facing aluminium shell combine the advantages of the materials aluminium and plastic. This way, high functionality and a state-of-the-art, design-oriented aluminium look provide real estates with a touch of exclusiveness - at simultaneously outstanding thermal insulation of the plastic window system. Plastic windows with facing coloured aluminium shell are not only resistant and durable, they simultaneously offer comprehensive options for individual design regarding the colour.



GEALAN eco-agreement

Commitment to recycling management

Already prior to the Recycling Management and Waste Law coming into effect, GEALAN offered its customers "Recycling management" in the form of a "GEALAN eco-agreement": Within the framework of this agreement, profile manufacturers and specialised window companies agree to recycle old plastic windows and the profile residues accumulating during window production. The goal is to supply the materials to closed PVC material recycling subject to prohibited landfilling. Since the high-quality PVC product – the thermoplastic material is made of the natural raw materials natural oil or natural gas and common salt – is way too precious to be disposed of with the waste or in a waste incineration plant. Through its 100 percent recyclability, it absolutely lends itself for recycling. Even the PVC of removed old windows can be granulated and reconditioned. This way, PVC becomes one of the most recyclable materials.

Our environmental
management



GECCO ventilation systems

In order to prevent the formation of mildew in rooms, there is the automatic ventilation system GECCO (GEALAN CLIMA CONTROL). The small flap with huge effects turns normal windows into "air-conditioning windows". At low wind pressures, the ventilation flap is open and closes the air duct in the event of higher wind speeds.



GECCO 3 open



GECCO 3 closed



GECCO 4 open



GECCO 4 closed

Air Watch

Even if the patented GECCO ventilation system provides for controlled basic ventilation, regular airing is indispensable. Therefore, the inside air must be changed entirely from time to time. GEALAN's Air Watch indicates its moisture content in a simple manner.



Your GEALAN partner will be happy to provide you with advice:

NH Design & Project Management Ltd

we are specialized to design for you-
energy efficient, comfortable, affordable,
ecological LOW E & PASSIVE HOMES

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