

WELDED FRAMES

Wooden and aluminum systems

GEMINI

Windows and doors

- A complete structural system for the production of wooden and aluminium windows and doors: aluminium profiles, mounting accessories, gaskets
- Aluminium profiles in the form of finished frames - welded or crimped corners
- Compatible with cuts from leading manufacturers, IFT ROSENHEIM certification
- Powder coating in QUALICOAT SEASIDE quality



ALURON WOODEN AND ALUMINIUM SYSTEMS

GEMINI

Construction systems for the production of wooden and aluminium windows and doors

SYSTEM

The construction system includes: aluminium profiles, gaskets, and accessories.

PARAMETERS

All GEMINI system solutions have high parameters in terms of waterproofness, air permeability, and wind load.

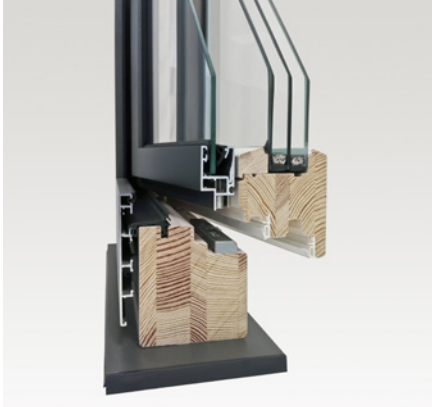
PREFABRICATION

High degree of prefabrication of the product offered by ALURON allows maximum savings at the stage of window assembly in production conditions.



ALURON WOODEN AND ALUMINIUM SYSTEMS

Features of ALURON systems:



WOOD AND ALUMINIUM

A unique combination

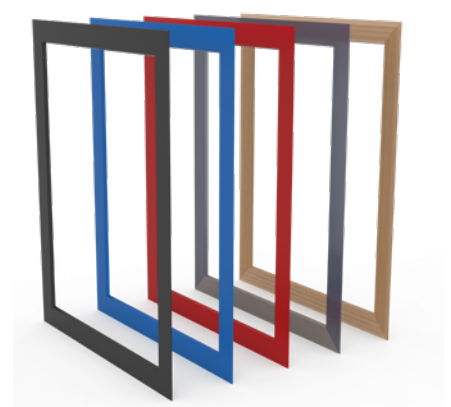
Wooden and aluminium systems connect **the best features of both materials**. Natural warmth and exclusive nature of wood, together with the durability and versatility of aluminium, create a PREMIUM quality product.



ALUMINIUM FRAMES

Perfectly flat welded corners

An exceptionally aesthetic and technically perfect way of joining the corners of aluminium frames. We get a uniform surface, **without any visible joining** of aluminium profiles.



COLOURS

Powder coating

Aluminium profiles are powder-coated at Aluron's powder coating plants, in **Qualicoat** or **Qualicoat Seaside** quality.

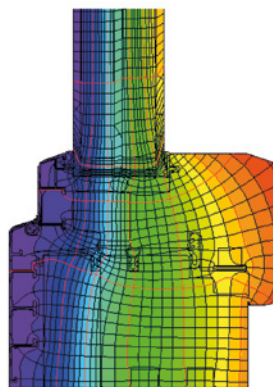
Availability of unlimited number of colours and wood-imitating decors.



READY FOR ANY WEATHER

Protection from weather conditions and UV

The use of aluminium cladding results in separation of the wooden part of the window from external weather conditions. Excellent performance parameters are confirmed by certification at the renowned **IFT Rosenheim institute**.



NATURALLY WARM

Having your bills in mind

Wooden and aluminium constructions are characterized by high thermal parameters. Gemini Passive systems for passive houses achieve **Uw from 0.61 (W/m²K)**. To compare, conventional systems have **Uw from 0.72 (W/m²K)**.



EASY CARE

Everyday comfort

Wooden and aluminium windows have all the advantages of wooden windows, but they **require no labourious maintenance**. Properly maintained, they provide many years of trouble-free use.

GEMINI SYSTEMS OVERVIEW

We would like to present you the most important groups of GEMINI products. The division was based on the fundamental differences in the construction of the system. Classic wooden and aluminium systems, based on a

central gasket. Next, constructions with a transverse SF rebate (without a central gasket), and thermally insulated systems for passive houses.

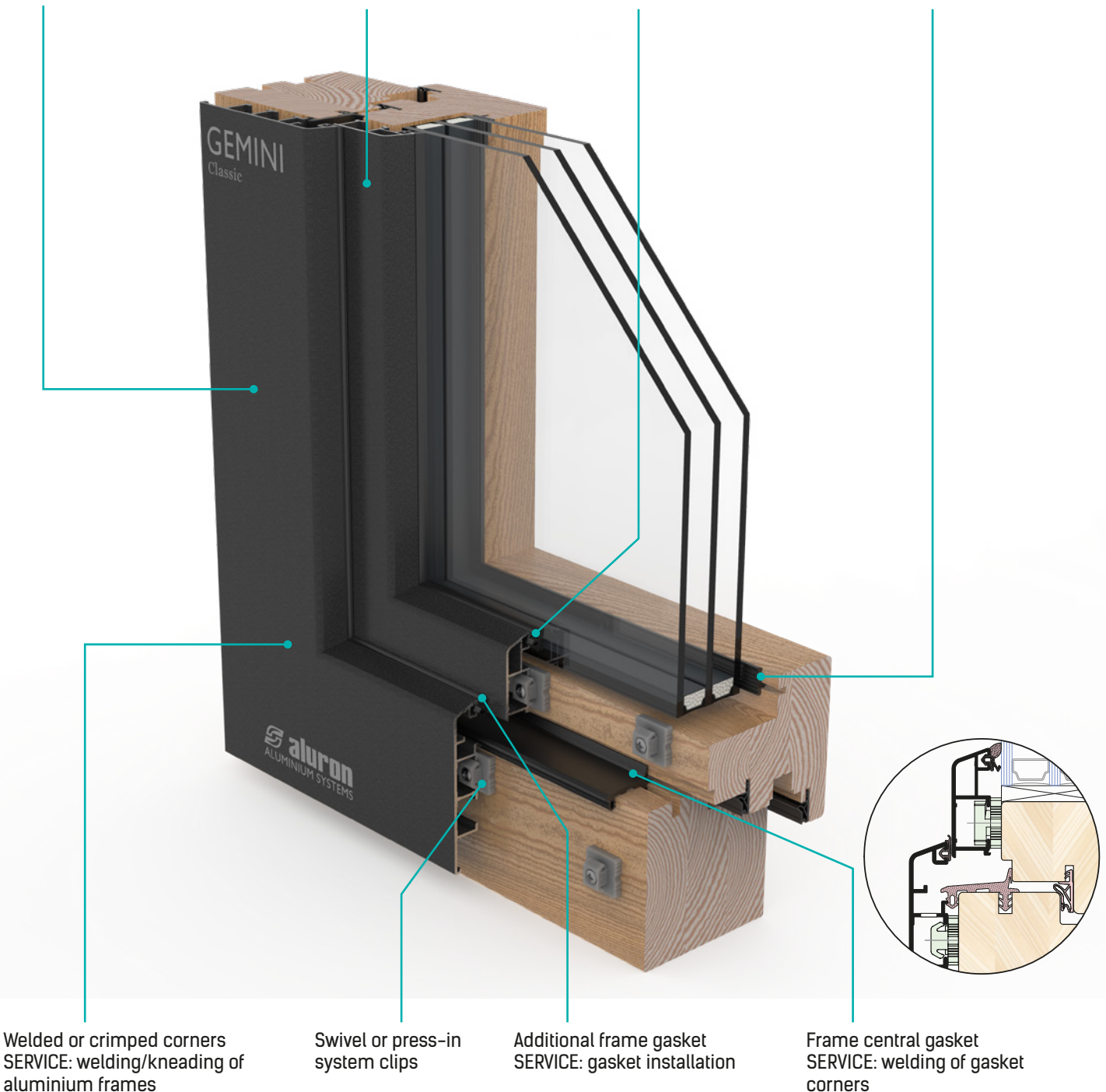
GEMINI with central gasket

This is a classic wooden and aluminium system, whose characteristic element is the central frame gasket. The gasket is made of TPE material, welded at the corners, allows for achieving high tightness parameters, and is responsible for controlled outflow of water to the outside of the structure.

- Classic
- Quadrat
- Retro
- Quadrat FB
- Integral
- Soft line
- Quadrat FB - V
- Integral II
- Linear

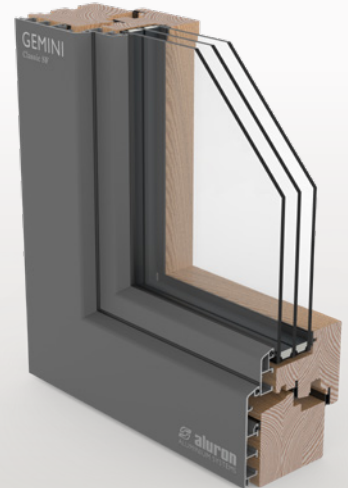
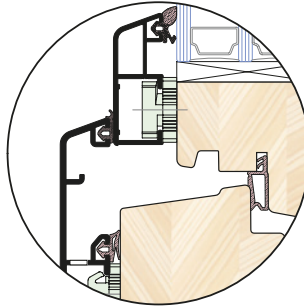


Frame aluminium cladding Sash aluminium cladding External glazing gasket SERVICE: gasket installation Internal glazing gasket



A group of GEMINI products in which the main frame gasket is replaced by a transverse rebate made in a wood frame. Water is drained through the transverse part of the frame rebate towards the drainage holes made in the aluminium profiles. The solution is provided for rebates being oblique in the range of 7-15 degrees. Compatible with the latest "Schrägfalz end mills systems" available on the market.

- Classic SF
- Quadrat SF
- Quadrat FB SF
- Linear SF



GEMINI PASSIV AND GEMINI PASSIV ULTRA

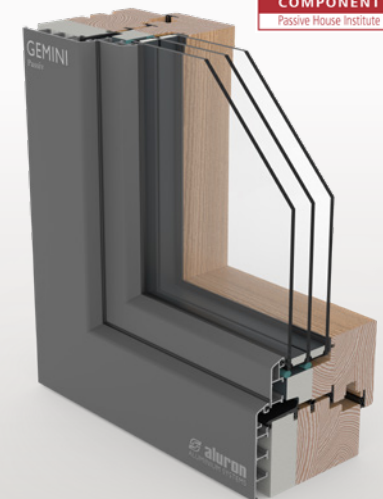
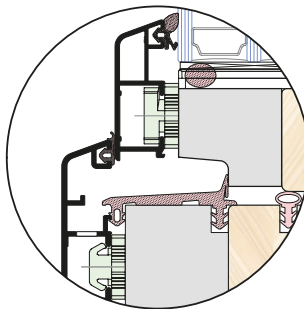
A group of components certified by Passivhaus Institut, designed for use in passive houses. The system uses an innovative high-strength insulation material based on foamed PS. It offers above-average thermal performance.

- Passiv Classic
- Passiv Softline
- Passiv Linear
- Passiv Quadrat
- Passiv Retro

Cool-moderate climate
Gemini Passiv
 $U_w \leq 0.80 \text{ W/(m}^2\text{K)}$
 for $U_g = 0.7 \text{ W/m}^2\text{K}$



Cold climate
Gemini Passiv Ultra
 $U_w \text{ built in } \leq 0.65 \text{ W/(m}^2\text{K)}$
 for $U_g = 0.52 \text{ W/m}^2\text{K}$

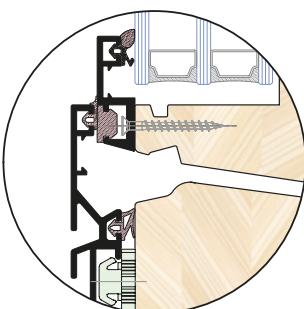
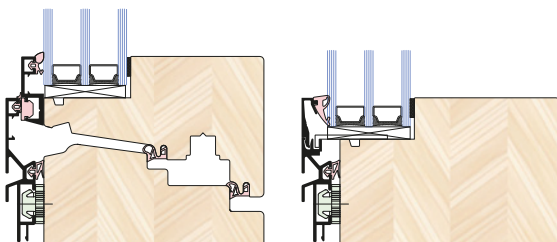


GEMINI CTS

Designed for use in windows produced using dedicated „Clima-Trend“ type cutters, available from selected manufacturers. Designers intended it to be a modern system, economical in production, offering high thermal performance and a slim appearance.

Features:

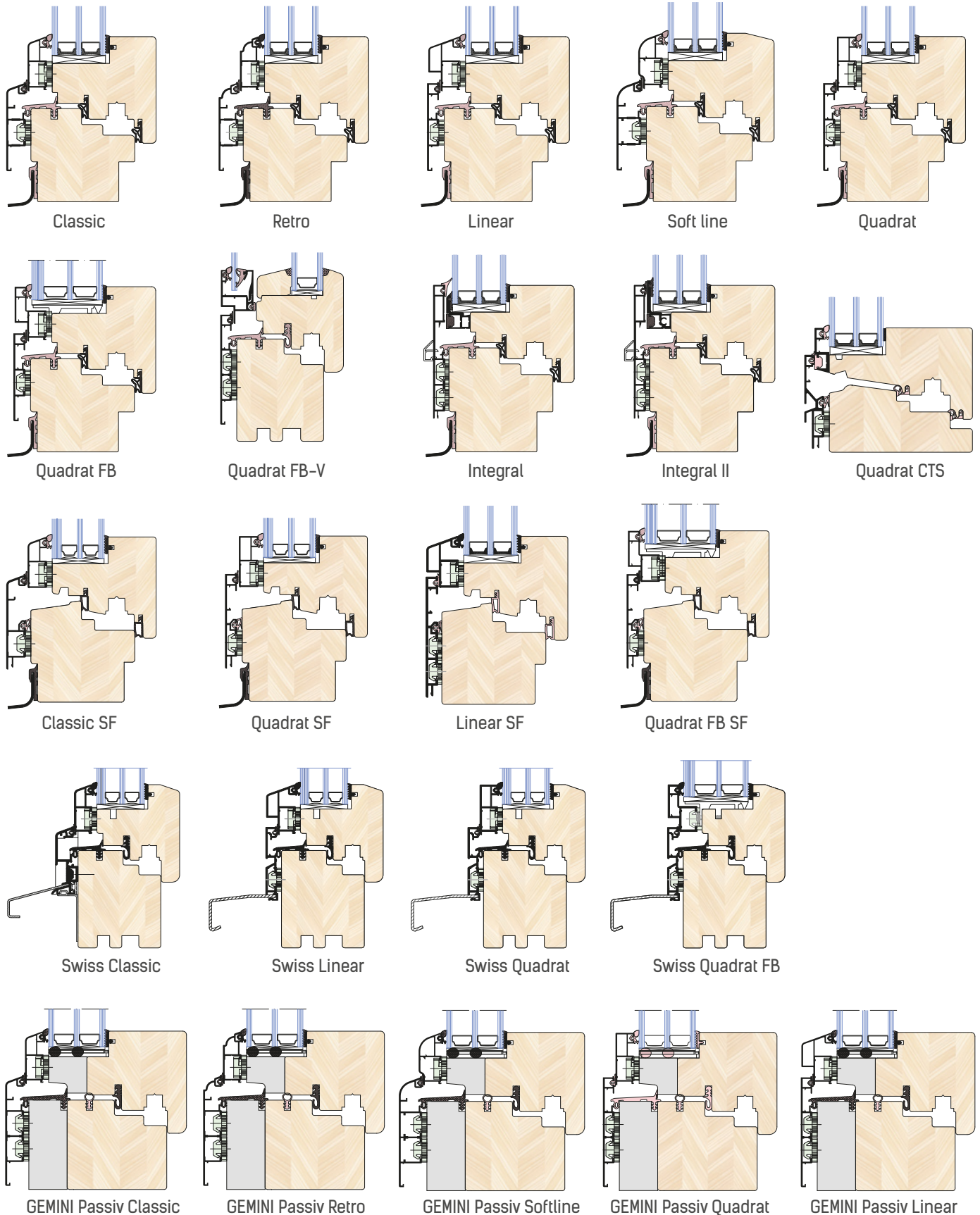
- Screw-on aluminum sash profile with hidden screws
- System of two adjoining frame and sash gaskets
- Slim and compact design
- More light compared to analogous designs



GEMINI WINDOW SYSTEMS – DESIGN OPTIONS

Below characteristic cross sections of all available GEMINI system variants are presented. The variety of systems makes the design of wooden and aluminium windows possible to be adapted to most requirements of investors and architects.

The offer consists of modern and rustic systems as well as systems with classically outlined lines. The position of the aluminium frame in relation to the window sash can be faced or the planes can be mutually offset.



GEMINI WINDOW SYSTEMS – DESIGN OPTIONS



Uw
from 0,74
W/(m²K)

CE
CERTIFIED

Classic



Uw
from 0,73
W/(m²K)

CE
CERTIFIED

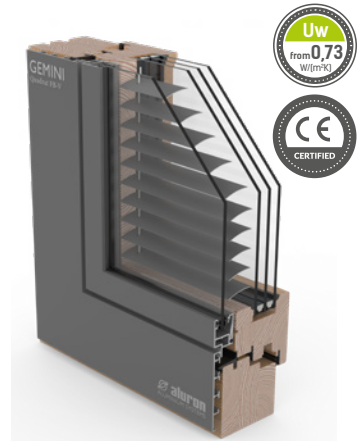
Quadrat



Uw
from 0,76
W/(m²K)

CE
CERTIFIED

Quadrat FB



Uw
from 0,73
W/(m²K)

CE
CERTIFIED

Quadrat FB-V



Uw
from 0,72
W/(m²K)

CE
CERTIFIED

Integral



Uw
from 0,73
W/(m²K)

CE
CERTIFIED

Integral II



Uw
from 0,74
W/(m²K)

CE
CERTIFIED

Retro



Uw
from 0,73
W/(m²K)

CE
CERTIFIED

Linear



Uw
from 0,74
W/(m²K)

CE
CERTIFIED

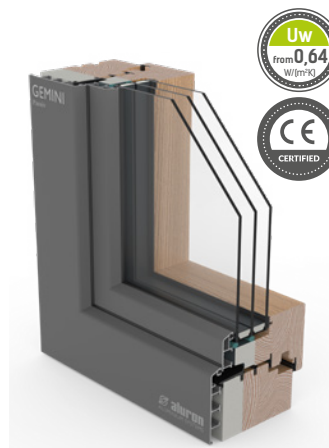
Soft line



Uw
from 0,70
W/(m²K)

CE
CERTIFIED

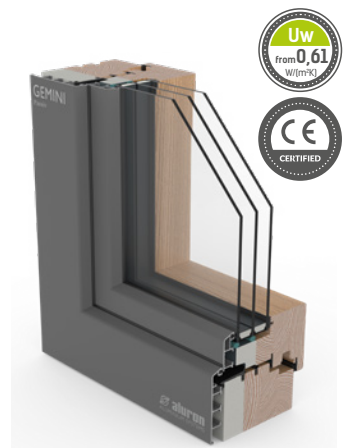
Quadrat CTS



Uw
from 0,64
W/(m²K)

CE
CERTIFIED

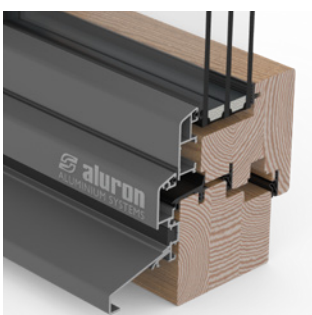
Passiv



Uw
from 0,61
W/(m²K)

CE
CERTIFIED

Passiv Ultra



Swiss Classic



Swiss Quadrat

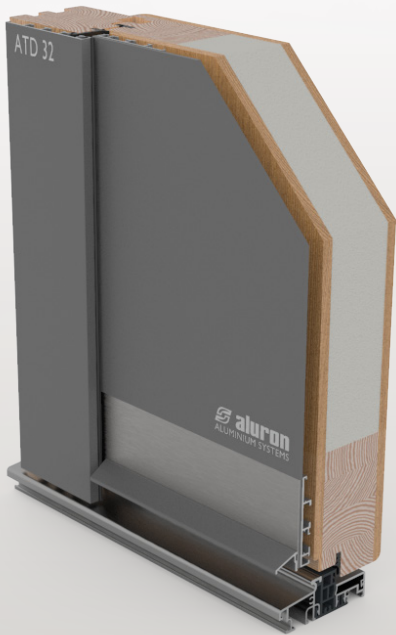


Swiss Linear



Swiss Quadrat FB

GEMINI DOORS SYSTEMS



GEMINI doors system allows you to make wooden and aluminium frame doors with filling as well as panel doors.

Frame doors use a wide range of aluminium profiles available in the Gemini system, threshold systems from Aluron's offer, and cassette infill elements.

Panel doors are made of aluminium sheet with a thickness of 3 to 4 mm. It undergoes processing, involving laser or CNC hole cutting and milling to give it the shape and pattern according to the design concept. In the final stage of production, the door is powder-coated or decorated with a wood-like layer. If requested by the client, applications such as stainless steel are installed.

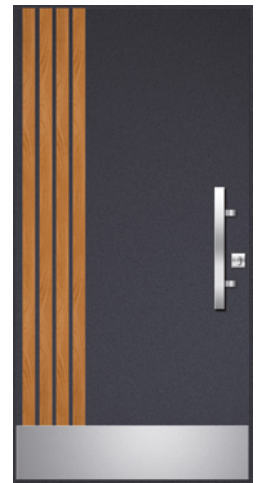
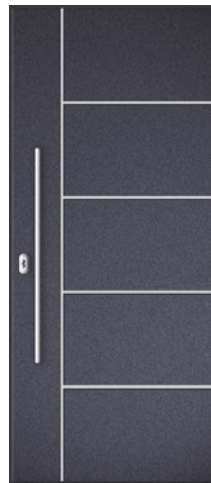
Door panels are mounted in a way typical for Gemini products with the help of system mounting clips. **AZD**-type, powder-coated surface hinges are also offered in the colour of the order placed.



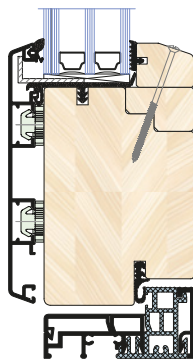
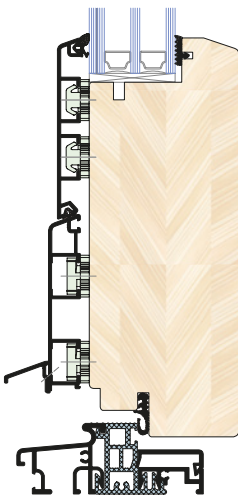
AZD-type surface-mounted hinges



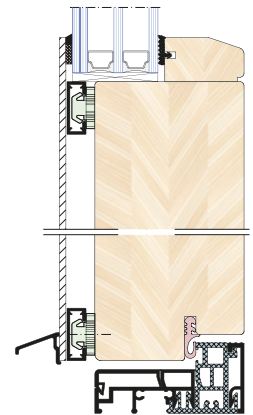
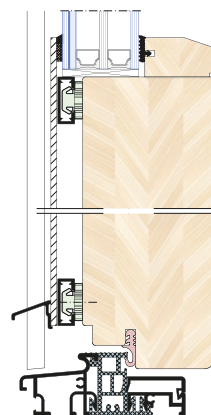
Door threshold from Aluron, type ATD32



Examples of panel doors made in the GEMINI system

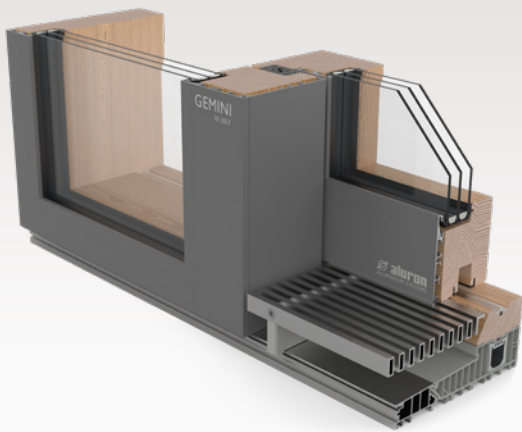


Cross sections through frame doors



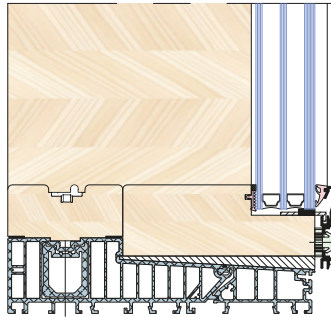
Cross sections through panel doors

GEMINI HS LIFT & SLIDE DOORS

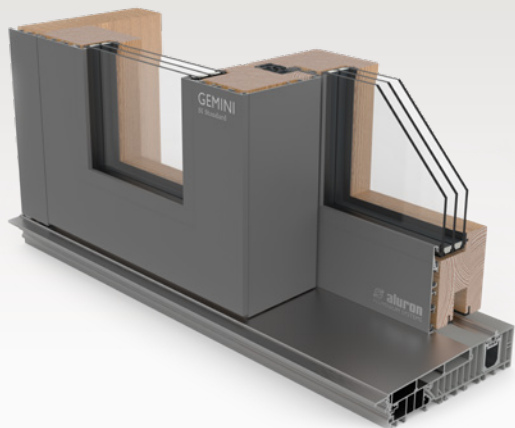


GEMINI SI SKY

The design of the **GEMINI SI SKY** system is based on the ECO PASS SKY axcent threshold solutions by Siegenia. It is a modern barrier-free overhead sliding door structure, which is characterized by the absence of a typical fixed leaf, and its role in the fixed part of the window is taken over by glazing made in the frame and in the threshold. This way the effect of a glass sheet unlimited by profiles and additional interior illumination is obtained.

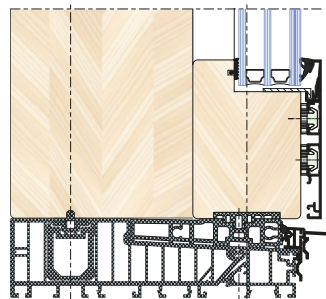


- Threshold fully faced with the floor 0 mm
- No barriers, carriage rail is mounted in the threshold
- Siegenia HS 4.0 sealing system
- Drainage by means of linear drain grating and drainage gutter
- Schemes: A, C, G2, G3 and K



GEMINI SI STANDARD

The design of the **GEMINI SI STANDARD** system is based on the ECO PASS threshold solutions by Siegenia. It is a standard design for overhead sliding doors, composed of an active (running) leaf and a passive leaf. Available glazing from the outside using aluminium slats, or alternatively, glazing from the inside can be used.



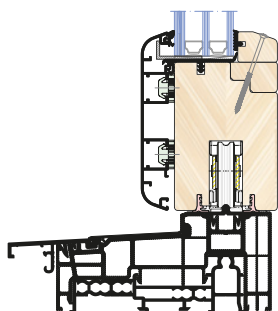
- Recommended height of a wooden leaf is 100 mm-150 mm
- Certification at the IFT ROSENHEIM institute, confirmed tightness of 600 Pa
- Siegenia HS sealing system 2.0 and 4.0
- Schemes: A, C, G2, G3 and K

GEMINI HS lift&slide door systems

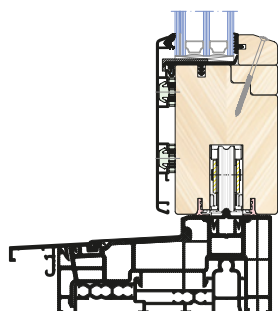
GEMINI window systems can be equipped with HS type overhead sliding door solutions, structurally compatible with G-U, Roto, Maco, AGB fitting systems. GEMINI HS is a standard overhead sliding door design, composed of an active (running) leaf and a passive leaf.

Available schemes: A, C, G2, G3 and K.

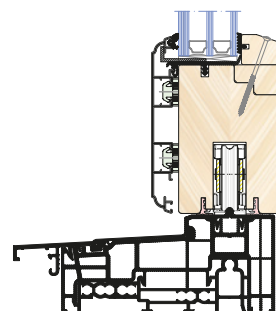
The recommended height of the wooden leaf is 100 mm - 150 mm.



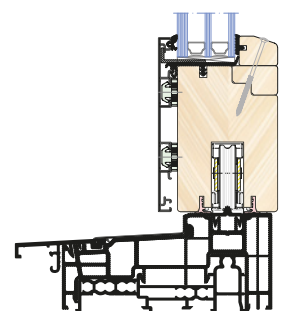
GEMINI HS Softline



GEMINI HS Classic



GEMINI HS Retro



GEMINI HS Quadrat

An ideal complement to GEMINI system solutions are window balustrades. These are structures in which the open balcony space is separated from the outside and protected by a glass barrier, having a protective and decorative function.

Aluron offers two types of balustrades: integrated **GEMINI IGB**, in which the glass is built inside the window structure, in the aluminium profile of the frame, and independent **GEMINI VGB**, in which the overhead profile is screwed to the window structure from the outside.

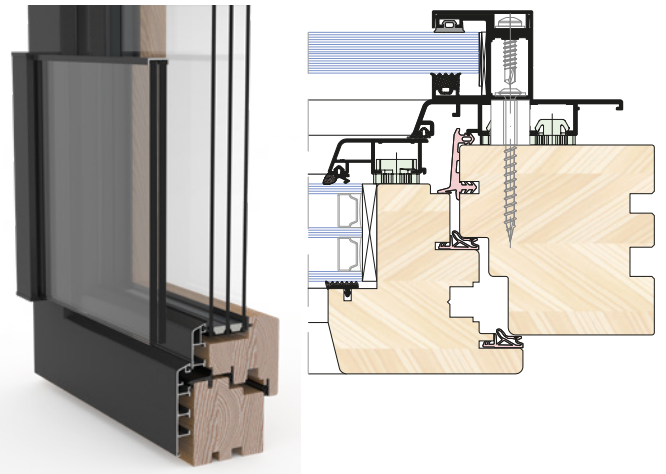
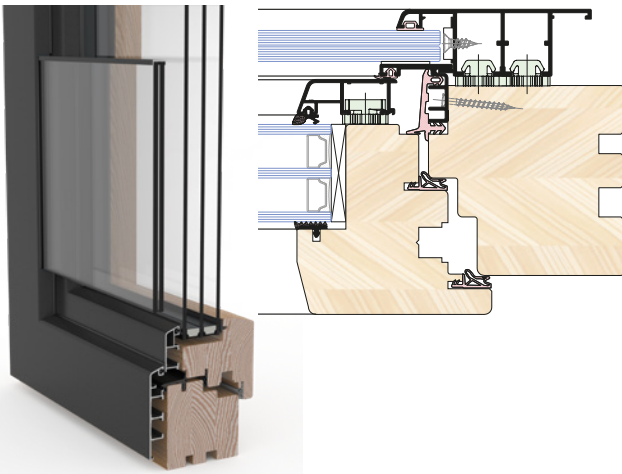
GEMINI IGB

Integrated balustrade



GEMINI VGB

Front mounted balustrade



The offer includes a prefabricated aluminium frame in welded or kneaded versions, adapted to mounting glass, and a set of necessary accessories.

The offer includes prefabricated aluminium profiles, cut to size, with holes and cuttings provided for assembly and a set of necessary accessories.

Another complement to the GEMINI systems are **INSECTA** frame mosquito net systems compatible with them. Mosquito nets are designed for windows, doors, and sliding doors. The frame mosquito net consists of an aluminium frame, a net with a gasket, a brush gasket, mounting clips, brackets, and hinges.

The **GEMINI INSECTA mosquito net** is offered exclusively in a processed form, as a ready-made mosquito net frame, in the ordered dimensions, profile colour, net and the selected equipment.

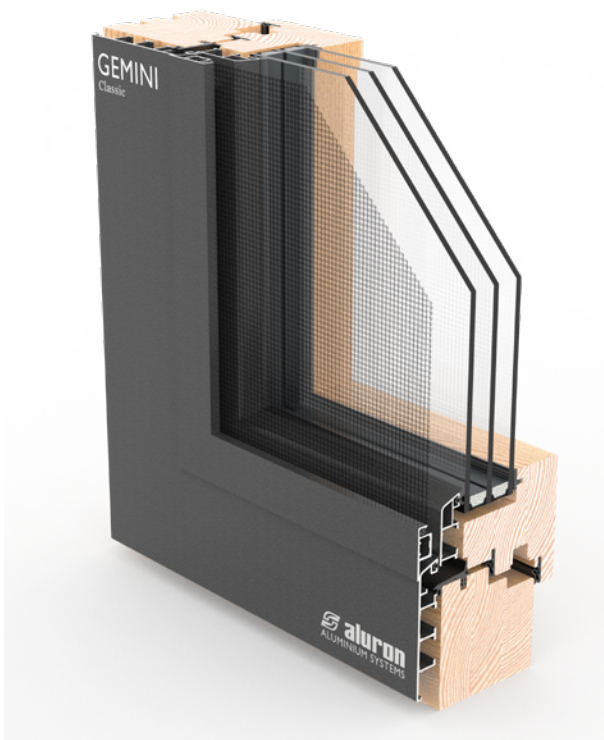
Profiles of the mosquito net frames are powder-coated or offered in a wood-like decors. Pull handles and hinge covers are also available in a painted version to match the colour of the frame.

Production of mosquito nets in ALURON includes the following range of activities:

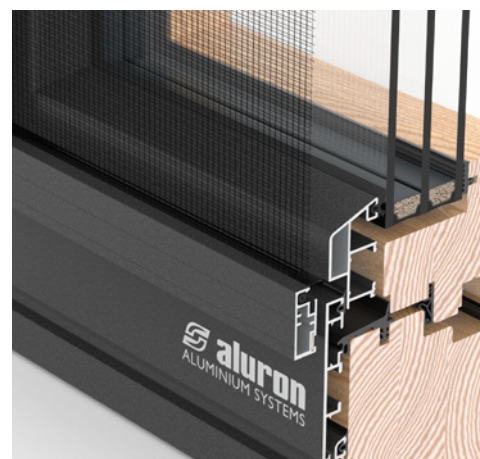
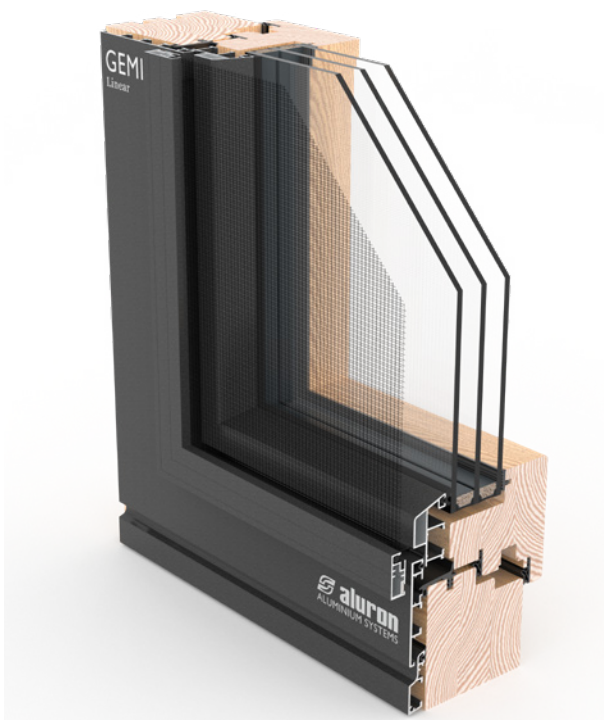
- cutting of aluminium profiles and mechanical joining of corners into frames by crimping
- net assembly
- gaskets assembly
- preparation for the installation of clips, hinges and pull handles

GEMINI INSECTA

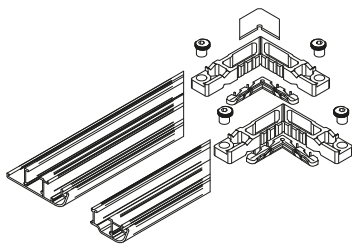
GEMINI INSECTA mosquito net with faced frame profile - Type 1. It is mainly used in the GEMINI window and door systems, with moved frame and sash/leaf surfaces.



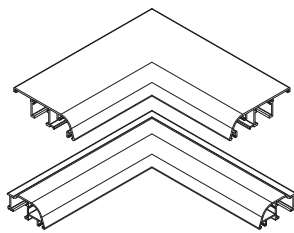
GEMINI INSECTA mosquito net with an overhead frame profile - Type 2. It is mainly used in the GEMINI window and door systems, with faced frame and sash/leaf surfaces.



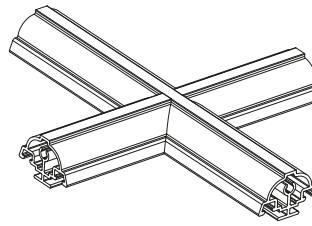
GEMINI – TECHNICAL SOLUTIONS



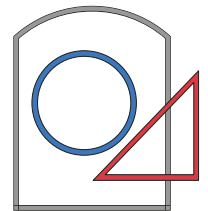
Production of aluminium frames
Crimped corners



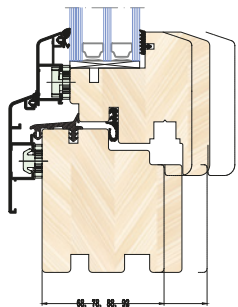
Production of aluminium frames
Welded corners



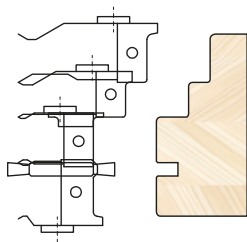
Muntin welding (optional)



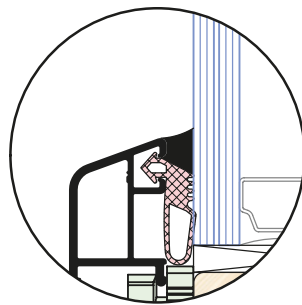
Special arches and shapes



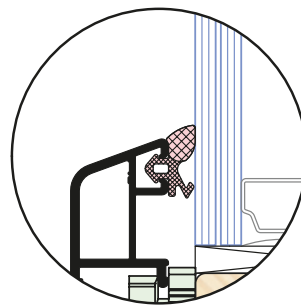
Designed for wood width of
68 - 78 - 88 - 92 mm



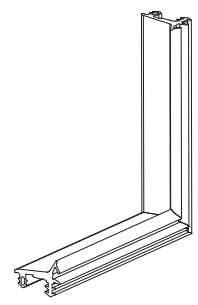
Compatibility with cutters of
leading manufacturers



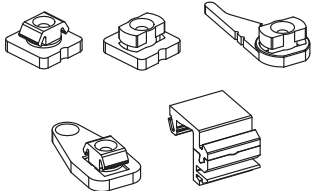
Wet glazing
Gasket and silicone



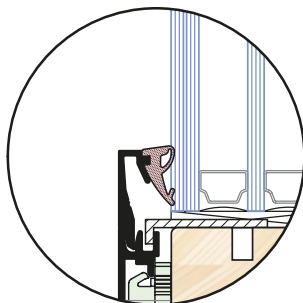
Dry glazing
Gasket



Central gasket
welded into frames
Guaranteed tightness



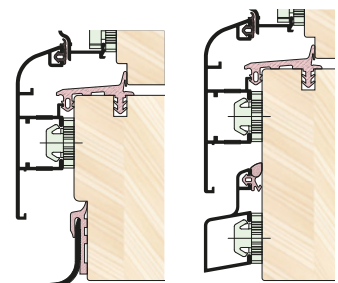
Swivel and press-in clips or screwless
clips. Automated installation optional



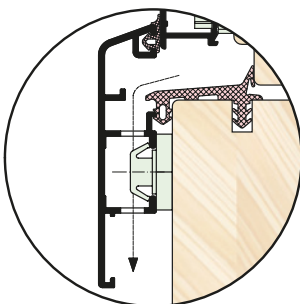
Optional glazing with aluminium strip
on the outside



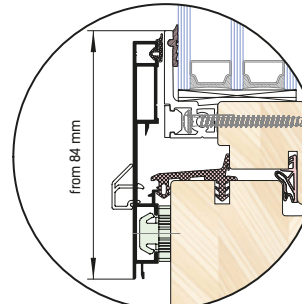
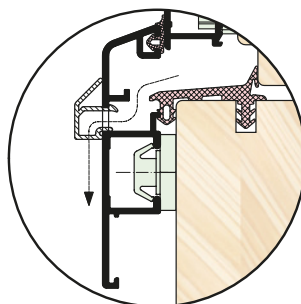
Balcony door pull handles



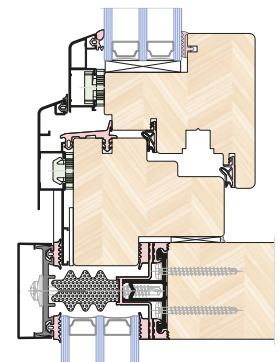
Windowsills - complete system
Classic and Softline
Under-windowsills profiles



Drainage of water from the structure:
in the bottom of the profile or from the front



Kneading height
frame-sash/leaf from 84 mm



Compatibility of GEMINI
with the VELLA facade system

ALURON – YOUR BUSINESS PARTNER

SEE MORE!



ALURON factory
employs > 400 people | 30,000 m² of space



Vertical and horizontal powder-coating shops



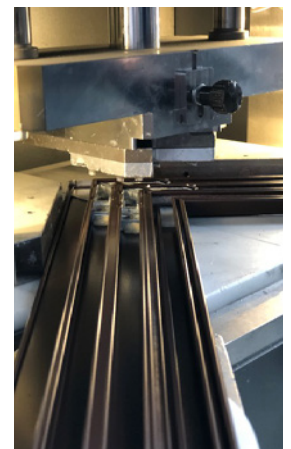
Own car fleet



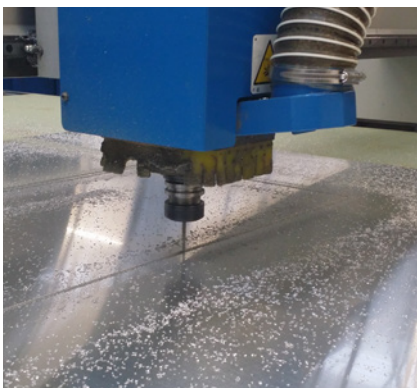
Test stand for testing parameters of
curtain walls, windows and doors



Aluminium welding



Manufacture of aluminium
profiles and frames



Professional CNC machining



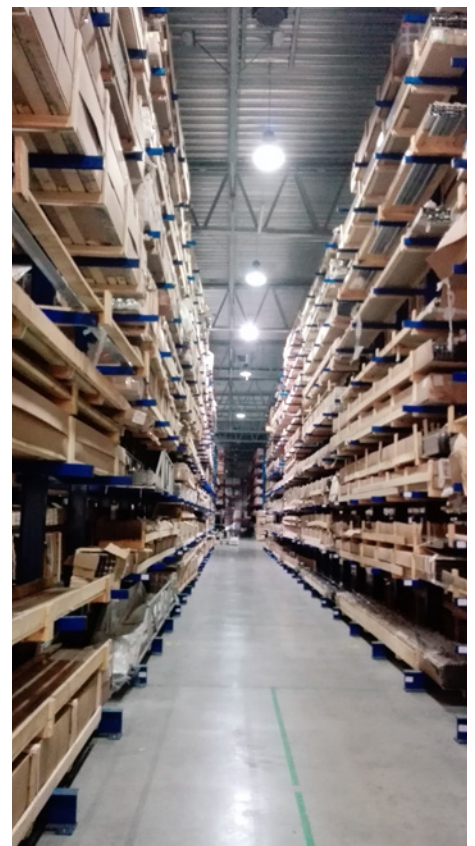
Engineering | Profile design | Toolmaking



Bending of profiles and sheets






Specialized packaging of aluminium frames



High storage warehouse

GEMINI PARAMETERS

Tightness, air, wind

	Wind load resistance	C3 / B3
	Waterproofing	E1200 9A
	Air permeability	4






Initial type test results made with the GEMINI systems.
Applies to all Gemini systems with central gasket and SF, wood width 68-78- 88-92, mechanical and welded corner joints, glazing on the outside and inside.



1950 Pa

Increased parameters for selected systems:
Example: GEMINI Passiv system – tightness

System features

Welded joints of aluminium frames	
Crimped joints of aluminium frames	
Thickness of wood section 68-92 mm	
Thickness of glazing package 24-64 mm	
Bending of sash/leaf and frame profiles	

Thermal conditions for a reference module - The example of GEMINI Integral System

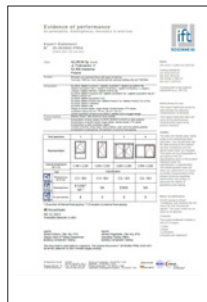
Heat transfer coefficient U_w
for a 1.23x1.48 [m] reference window

U_w [W/(m ² K)]		Pine ($\lambda=0.13$ [W/(mK)]; $\rho=500$ [kg/m ³])				Meranti ($\lambda=0.12$ [W/(mK)]; $\rho=450$ [kg/m ³])				Spruce ($\lambda=0.11$ [W/(mK)]; $\rho=450$ [kg/m ³])			
		68 [mm]	78 [mm]	88 [mm]	92 [mm]	68 [mm]	78 [mm]	88 [mm]	92 [mm]	68 [mm]	78 [mm]	88 [mm]	92 [mm]
Glazing package 4/16/4	$U_g=1.1$ [W/(m ² K)]	1.257	1.232	1.217	1.213	1.237	1.213	1.199	1.194	1.217	1.199	1.180	1.175
	$U_g=1.0$ [W/(m ² K)]	1.189	1.164	1.150	1.145	1.169	1.145	1.131	1.126	1.149	1.126	1.112	1.108
Glazing package 4/16/4/16/4	$U_g=0.7$ [W/(m ² K)]	0.927	0.906	0.889	0.886	0.909	0.888	0.875	0.870	0.890	0.871	0.857	0.852
	$U_g=0.5$ [W/(m ² K)]	0.791	0.770	0.756	0.750	0.773	0.752	0.739	0.734	0.755	0.735	0.722	0.717

CERTIFICATES



IFT ROSENHEIM - WOOD-ALU System GEMINI



IFT ROSENHEIM - WOOD-ALU
GEMINI System, certification RC2



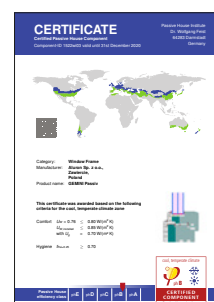
IFT ROSENHEIM - WOOD-ALU
GEMINI SI STANDARD System, GEMINI SI SKY



QUALICOAT certification covers all painted products in ALURON
paint shops



EPH DRESDEN - WOOD-ALU GEMINI System
Safety certificate, Category A



WOOD-ALU Gemini Passiv System,
Gemini Passiv Ultra System



COLOURS

Aluminium overlays are characterized by almost unlimited options of colours not available in a standard wooden window. We offer powder coating in RAL, NCS, a wide range of special colours, wooden-like decors, as well as anodized.

Powder coating

Colours available in gloss levels MAT, STRUCTURE, METALLISED STRUCTURE.

Wood imitation - without film (veneer).

Wood-like decors in gloss level MAT.

ALURON Color Collection 2

ACC 2 is an individual and exclusive colour palette available only under the ALURON brand. It contains more than 60 non-standard, modern and eye-catching colours.



COLOUR GROUPS:

AR - MAT

Powder coating RAL MAT



AR - FS

Powder coating RAL FS



AM - FS

Powder coating Metallic FS



QUALICOAT CLASS 2

ANODIZED & EFFECT COLORS

AA - C anode colours: C0, C33, C34

AA - R Anodised finishes - Powder coating



AD - MAT

Wood-like decors MAT



STANDARD COLOURS:

AR-RAL9005-MAT	AR-RAL1013-MAT
AR-RAL7016-MAT	AR-RAL3004-MAT
AR-RAL9007-MAT	AR-RAL6005-MAT
AR-RAL7042-MAT	AR-RAL5010-MAT
AR-RAL9006-MAT	AR-RAL8001-MAT
AR-RAL7035-MAT	AR-RAL8007-MAT
AR-RAL9016-MAT	AR-RAL8017-MAT
AR-RAL9010-MAT	AR-RAL8019-MAT

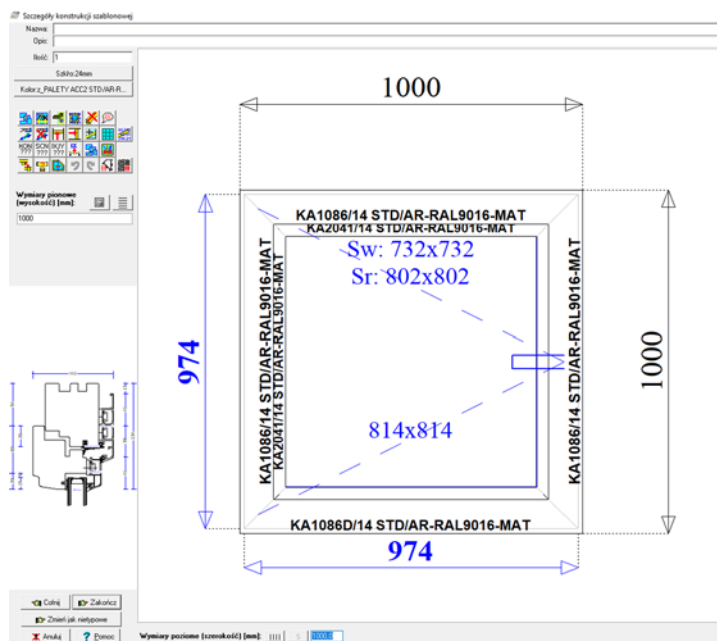
Certified powder coating quality



Powder-coatings are distinguished by their high resistance to temperature fluctuations, UV or mechanical damage. Powder coating is offered in **QUALICOAT** quality and optionally in **QUALICOAT SEASIDE** quality for additional corrosion protection.

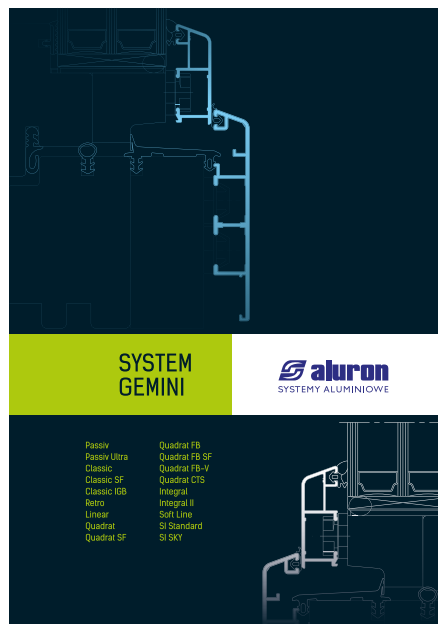
Surfaces that imitate the grain of the wood without using conventional foil (veneer), using modern technology of painting, based on the phenomenon of sublimation: **DECORAL Heat transfer**. Aluminium profiles are also available in anodized version.

Software for the customer



ALURON copyright software for quotations and ordering by e-mail

Technical catalogues



Printed and electronic technical catalogues

BENEFITS

FOR THE USER:

- Various styles of aluminium cladding
- A wide range of colours offered
- Aesthetics and functionality typical of PREMIUM products
- Welded corners of aluminium claddings
- Improved performance: tightness, weather resistance, acoustic comfort and structural statics
- Safe use: independent design of ALU fronts and wood-body
- Ease of recycling and replacement of the front in case of defects: product can be disassembled

FOR THE MANUFACTURER:

- A complete aluminium system including profiles, gaskets, clips, plugs and other accessories
- Wide range of available designs
- Aluminium claddings available on request in any colour
- Easy and quick installation in production conditions
- Offer also includes windowsills, metal sheets and processing
- Optional bending of aluminium profiles
- Copyright software for quotations and ordering by e-mail



ALURON
PL 42-400 Zawiercie
ul. Podmiejska 11
holzalu@aluron.eu

Business partner

www.aluron.eu