

AURORA

Windows and Doors
Presentation



AREAS WE SERVE



From the heart of Chicago to the farthest reaches of Illinois, Aurora Doors and Windows has you covered. While our roots are deeply planted in the Windy City, our services

Arlington Heights
Barrington
Bensenville
Buffalo Grove
Deer Park
Deerfield
Des Plaines
Elk Grove Village
Elmwood Park
Evanston
Forest Lake
Franklin Park
Glencoe
Glenview
Golf
Grayslake
Green Oaks

Hawthorn Woods
Hoffman Estates
Island Lake
Inverness
Itasca
Kenilworth
Kildeer
La Grange
Lake Bluff
Lake Forest
Lake Zurich
Libertyville
Lincolnwood
Long Grove
Melrose Park
Morton Grove
Mount Prospect

Niles
Norridge
North Chicago
Northbrook
Northfield
Palatine
Park Ridge
Prospect Heights
Riverwoods
Rolling Meadows
Roselle
Round Lake
Schaumburg
Skokie
Vernon Hills
Wauconda
Wheeling
Winnetka

111 W Marquardt Dr,
Wheeling, IL, 60090
(815) 881-1483



WHY OUR WINDOWS?

To manufacture our windows, we use profile systems from the GEALAN Group. Windows made from the latest generation of GEALAN profile systems not only look attractive, the sophisticated profile geometries have also been perfected right down to the last detail to satisfy all technical requirements.



ADVANTAGE OF GEALAN WINDOW PROFILES

Durable

Windows made from PVC profiles are easy to clean and require very little maintenance. Resistant to most climatic and environmental influences, they have a long service life.

Comfortable

Windows made from GEALAN multi-chamber profiles ensure that the heat stays in and the noise out. They provide security and comfort and produce an unmistakable living atmosphere.

Individual

The choice of profile geometry, opening mechanism and window pane subdivision influences the individual character. With GEALAN profiles even unusual window shapes are possible.

Versatile

To take account of different tastes and architectural styles, modern window technology can be realised not only in white but also in GEALAN-acrylcolor® or with a decor or wood-grain foil.

Energy efficiency

European windows are known for their energy efficiency. They are designed to reduce energy consumption and help save on heating and cooling costs.



Reduced Energy Costs

Energy efficiency is a crucial component of sustainable window and door design. According to the U.S. Department of Energy, inefficient windows, skylights, and doors account for up to 25% of the average household's energy bills. Some sources estimate up to 40%. Upgrading to high-performance windows reduces your heating and cooling costs, saving you money on your electric bills in the long run. Additionally, there is less stress on your mechanical equipment to heat or cool your living spaces, saving you even more money on repairs and maintenance.



Versatility

Tilt and turn windows offer two ways of opening, which allows for greater flexibility in how you ventilate your home. The tilt function allows you to open the window slightly for ventilation, while the turn function allows you to fully open the window for maximum airflow.



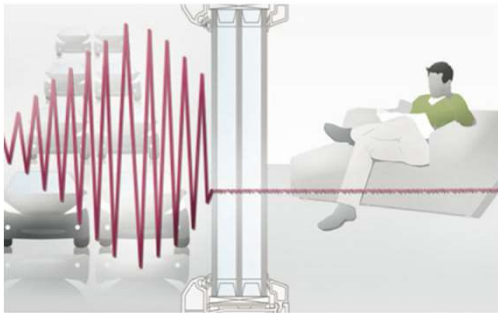
Increased security

European windows are often designed with multiple locking points and advanced security features, making them more secure than American windows. The windows can be left open without concern that the home can be compromised from the outside.



Sound Protection

Due to its insulating properties both in the frame and the glazing, these windows prevent outdoor noise entering the house. Thus, we have a quiet atmosphere indoors despite the constant noise in the towns.



Easy to clean

Tilt-and-turn windows are easier to clean than American style windows. They can be fully opened, which makes it easier to access the outside of the window from the inside of the house.



Style and design

AURORA
WINDOWS AND DOORS

European windows are known for their stylish and modern designs, which can add a unique and contemporary look to any home.



Better healthiness and well-being

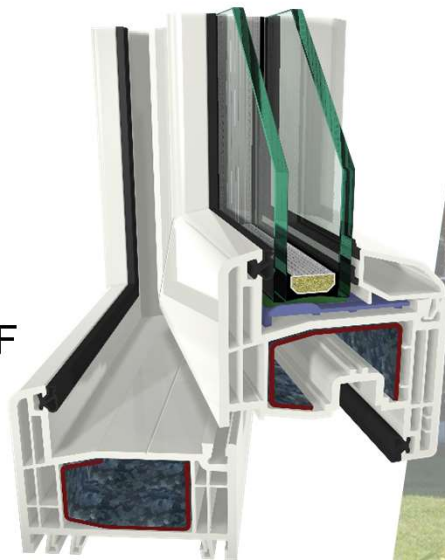
A high-performance window leaves the cold outside and keeps the heat in your home in winter, doing the opposite in summer. This prevents water vapor in the home environment from being settled on the glazing and frames avoiding condensations, dampness, mold, etc.



S 8000 IQ

Economic efficiency as a guiding principle

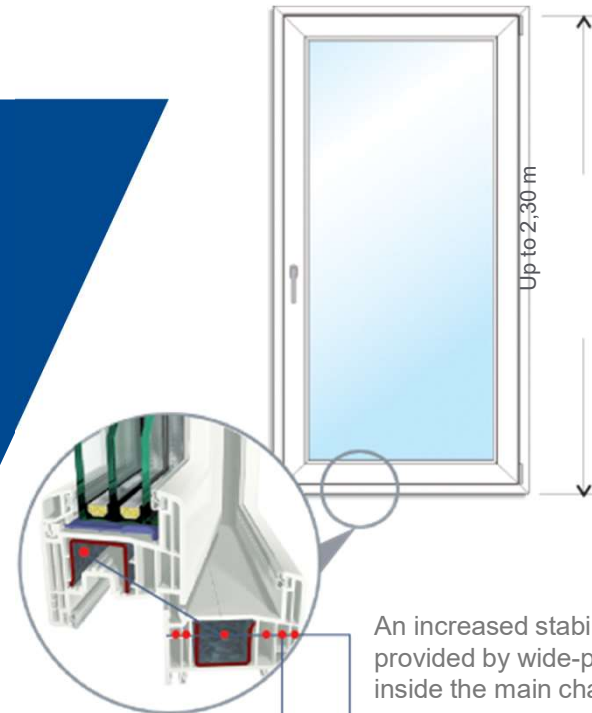
- + 74 mm construction depth
- + Sash gasket
- + Thermal insulation of up to $U_f = 0,21 \text{ BTU/h}\cdot\text{ft}^2\cdot^\circ\text{F}$



S 8000 IQ

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.



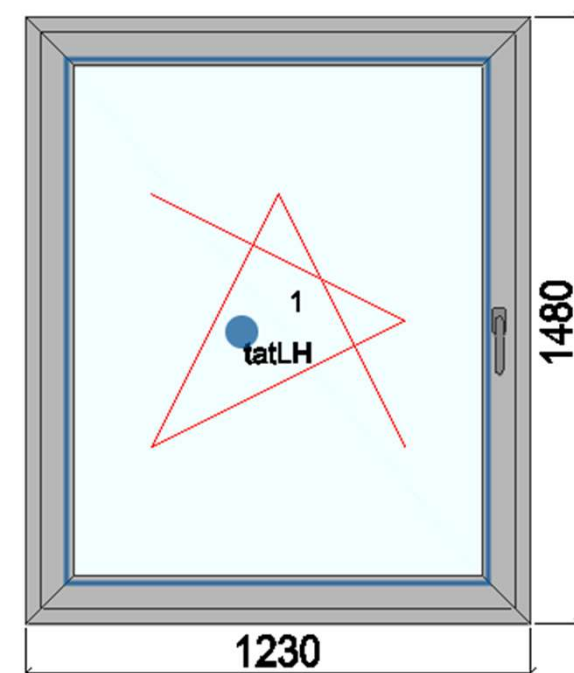
An increased stability of window structures is provided by wide-profile steel reinforcement inside the main chamber of the profile.

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

S 8000 IQ
Great U values

U_w value with 24 mm double glass panel
– **0,21** BTU/h·ft²·°F

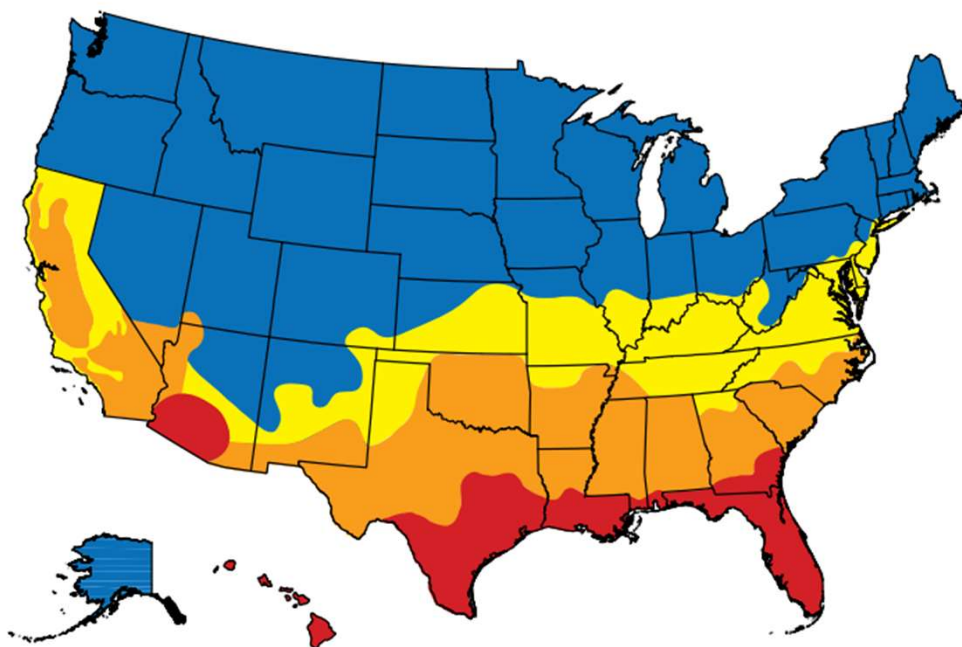
U_w value with 44 mm triple glass panel
– **0,15** BTU/h·ft²·°F





ENERGY STAR® for Windows, Doors, and Skylights

CLIMATE ZONE MAP



- Northern
- North-Central
- South-Central
- Southern

WINDOWS

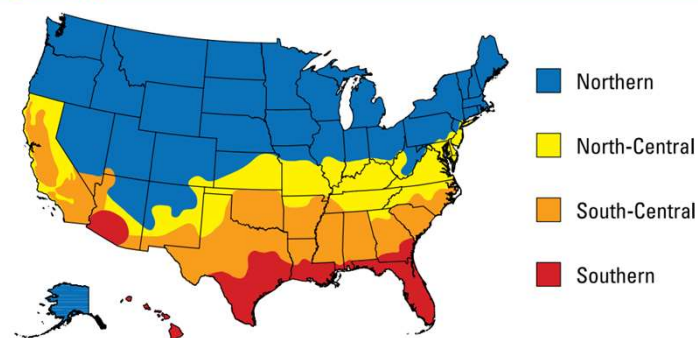
CLIMATE ZONE	U-FACTOR ¹
Northern	≤ 0.27
	= 0.28
	= 0.29
	= 0.30
North Central	≤ 0.30
South Central	≤ 0.30
Southern	≤ 0.40

NEW ENERGY STAR 7.0 (will go into effect on Oct. 23, 2023)

WINDOWS		
CLIMATE ZONE	U-FACTOR ¹	SHGC ²
Northern	≤ 0.27	Any
	≤ 0.28	≥ 0.32
	≤ 0.29	≥ 0.37
	≤ 0.30	≥ 0.42
North Central	≤ 0.30	≤ 0.40
South Central	≤ 0.30	≤ 0.25
Southern	≤ 0.40	≤ 0.25

Table 1: Energy Efficiency Requirements for Windows

Climate Zone	U-Factor	SHGC
Northern	≤ 0.22	≥ 0.17
North-Central	≤ 0.24	≤ 0.40
South-Central	≤ 0.28	≤ 0.23
Southern	≤ 0.32	≤ 0.23



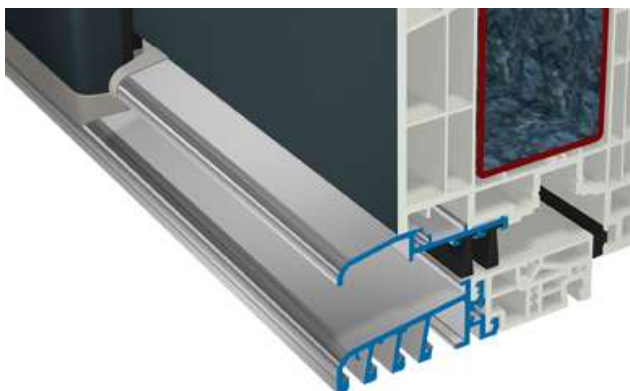
$$0,22 \text{ BTU/h}\cdot\text{ft}^2\cdot^\circ\text{F} = 1,25 \text{ W/m}^2\text{K}$$

$$0,32 \text{ BTU/h}\cdot\text{ft}^2\cdot^\circ\text{F} = 1,82 \text{ W/m}^2\text{K}$$

https://converter.eu/heat_transfer_coefficient/#1.8170442873600001_Watt/Square_Meter_K_in_BTU/Hour_Square_Foot_%C2%B0F

The GEALAN threshold systems that we use are perfect for front and balcony doors

- + Fully compatible with GEALAN systems and tested threshold solutions
- + An extensive range of accessories for weather-guards, connecting components, and side sections



AAMA certification

24 MONTH PVC WEATHERABILITY REPORT

The PVC profiles listed below have been tested to determine compliance with the weathering requirements of AAMA 303-18 "Voluntary Specification for Rigid Poly Vinyl Chloride (PVC) Exterior Profiles". All profiles have been weathered in accordance with ASTM D 4726 at New River, Arizona; Miami, Florida; and Medina, Ohio.

Profiles Weathered:

550507 White
809507 White
800188 Black Lam/White
809588R Black Lam/White

Dates Weathered:

Arizona: 6-14-19 to 6-18-21
Ohio: 6-19-19 to 6-19-21
Florida: 6-7-19 to 6-7-21

Alphabetical Listing by Manufacturer

PVC – AAMA 303, Voluntary Specification for Rigid Polyvinyl Chloride (PVC) Exterior Profiles

Alpatech Vinyl, Inc. – AV-1	Oxinger Ltd. Co. – OX-1
Alside (Premium Building Products) – ALS-1	P.H. Tech, Inc. – PHT-1
Aluplast GmbH – ALU-1	profine – KBE/TROCAL/KÖMMERLING – PRO-1
ATN Plastic Building Material Co. Ltd. – ATN-2	profine – KÖMMERLING/TROCAL/KBE – PRO-6
Atrium Extrusion Systems – ELL-1	Quality Lineals USA Inc. – QL-1
Atrium Extrusion Systems – ELL-2	REHAU AG & Co. – RAU-3
Bavarian Polymers USA, Inc. – BAV-1	REHAU S.A. DE C.V. – RAU-5
Chelsea Building Products – CBP-1	SimEx, Inc. – SMX-1
Chelsea Building Products – CBP-2	Thermoplast Extrusions – TPL-1
DECCO S.A. – DEC-1	Veka AG – VK-4
Deceuninck North America – DEP-1	Veka, Inc. – VK-1****
Deceuninck North America – DEP-2	Veka South – VK-5****
Extrusion Technology – ETG-1	Veka West – VK-2****
Foshan Wei Hui Plastic Profile Co. Ltd. – FWH-1	The Vinyl Company – VIP-1
Fukuvi USA, Inc. – FUI-1	Vinyl Profiles, Inc. – VPI-1
GEALAN Baltic BI UAB – GEA-1	Vinylcraft Extrusions Ltd. – VCE-1
Guangdong Liansu Technology Industrial Co. Ltd. – GUA-1	Vision Extrusions Ltd. – VEX-1
Huazhijie Plastics Bldg. Material Co. Ltd. – ZHP-1	Vision Profile Extrusions Limited – VPE-1
MGM Industries, Inc. – MGM-1	Vision North Ltd. (Subsidiary of VEGL) – VEX-2
MI Profiles, LLC. – MIP-1	Vision Dominion Extrusions Limited – DOM-1
Mikron Industries, Inc. – MK-1	Vision Profile Extrusions USA Limited – CW-1
Mikron East – MK-2	Vision Profile Extrusions USA Limited – KG-1
Mikron Midwest – MK-3	Window City Industries Inc. – EUP-1
Milgard Vinyl Extrusions – MGX-1	YKK AP America, Inc. – YKK-1
Thermoplast Nexttrusions, Ltd. – NEX-1	Zhejiang Guangan Enterprises Co. Ltd. – GE-1
North Star Manufacturing (London) Ltd. – NS-1	Zhejiang Hongbo New Building Materials Co., Ltd. – HBO-1



Certified Profile Licensees **AAMA Fenestration Exterior Profile Certification Program**

March 1, 2023



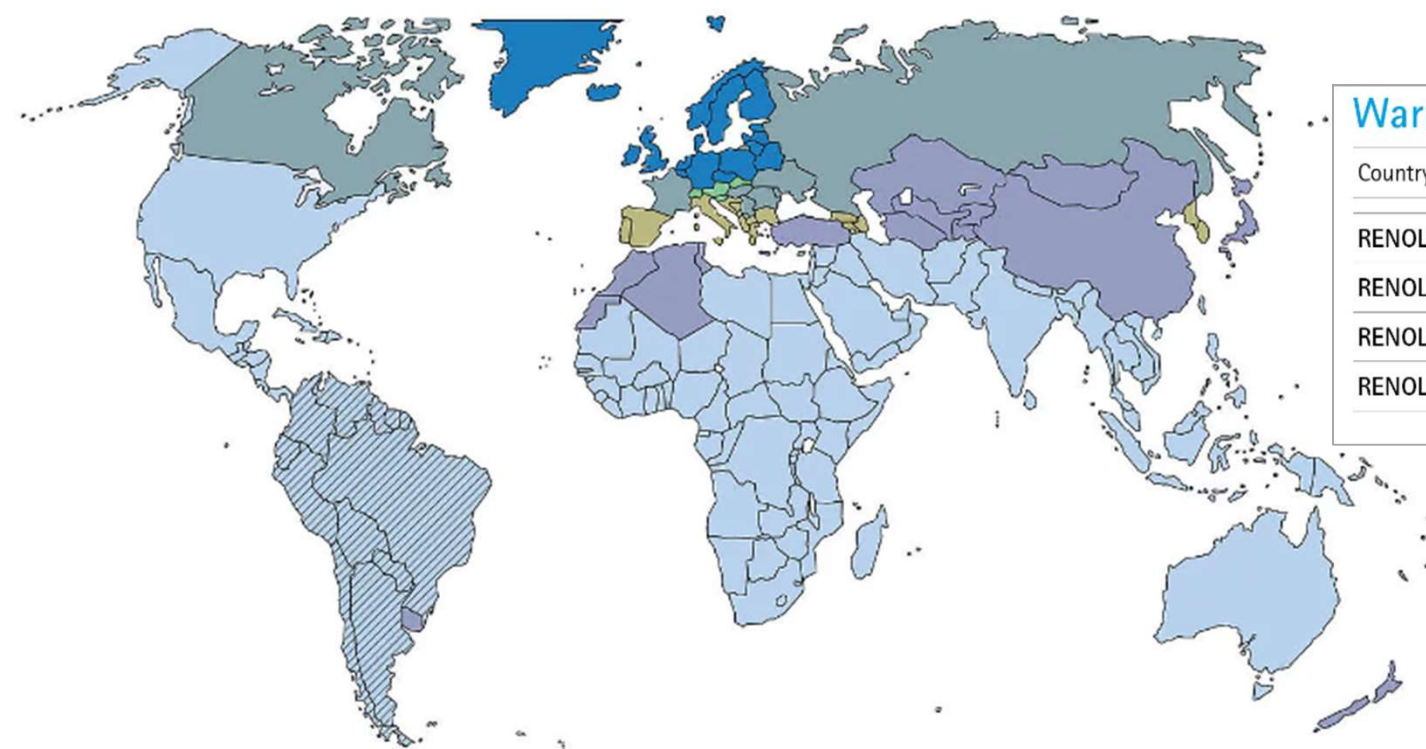
This directory lists the producers (and their code designations) who are licensees of the AAMA Fenestration Exterior Profile Certification Program, owned by the Fenestration and Glazing Industry Alliance (FGIA). This Certification Program consists of ongoing laboratory and weatherability testing of profiles randomly selected by AAMA's Validator to determine compliance with the appropriate AAMA 300-Series Specification. Certification procedures are fully described in the respective procedural guides for the various materials (vinyl [PVC], fiberglass, and molded aliphatic polyurethane) for the *AAMA Fenestration Exterior Profile Certification Program*.

Only certified profiles may be used in a window or door which is labeled in the AAMA Window and Door Certification Program, owned by the Fenestration and Glazing Industry Alliance (FGIA). Not all producers certify every one of their products.

To verify the current certification status of any licensee's specific profile(s), contact FGIA's Validator, Associated Laboratories, Inc. at (214) 565-0593.

<https://aama-media.s3.amazonaws.com/g39de440-b91a-11ed-afc3-69b03b1b5bfa.pdf>

Laminated films warranty



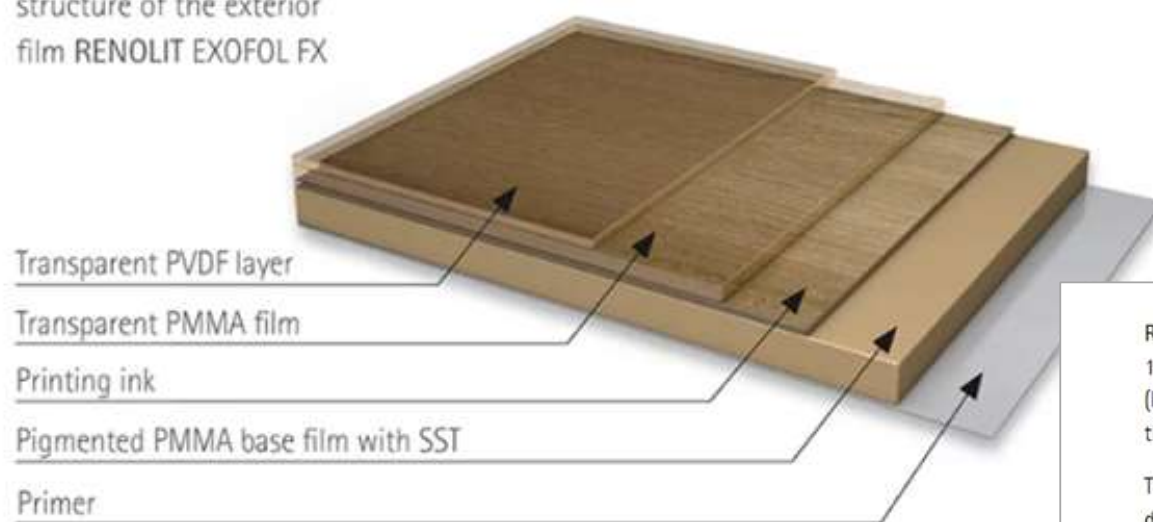
Warranty*

Country Group	1	2	3	4	5	6	
RENOLIT EXOFOL MX	10	10	7,5	5	-	-	-
RENOLIT EXOFOL PX	15	15	15	15	10	-	10
RENOLIT EXOFOL PFX	15	15	15	15	10	5	10
RENOLIT EXOFOL FX	20	20	20	20	20	20	20

* up to (in years)

Renolit FX foil structure

Diagram showing the structure of the exterior film RENOLIT EXOFOL FX



RENOLIT EXOFOL FX is a multi-layer film with an overall thickness of 170 – 180 μm . The top layer consists of a polyvinylidene fluoride film (PVDF), the second is transparent polymethylmethacrylate (PMMA) and the base layer is a solid colour PMMA.

The base layer contains Solar Shield Technology (SST), to further decrease heat build-up of the film and the laminated components.

New colours for building components: The 3-layer construction of the film ensures colours, retain their brilliance over the entire life of the film even when exposed to intense UV radiation.

Sustainable production and environmental protection

We act responsibly for future generations.

Environmental protection and efficient use of resources are necessary conditions for the sustainable success of a company.

WHAT NEEDS TO BE KNOWN

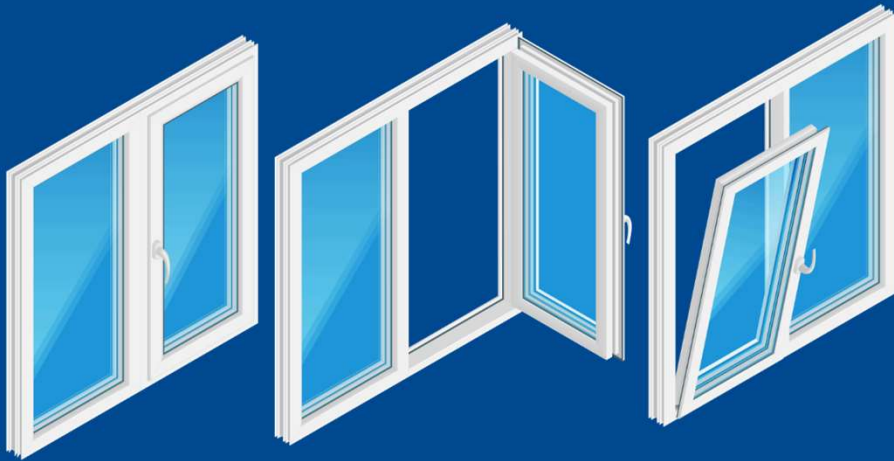
Segmentation by window frame:

- Vinyl Windows
- Wood Windows
- Wood-Clad Windows
- European steel reinforced vinyl windows
- Fiberglass Windows
- Aluminum Windows

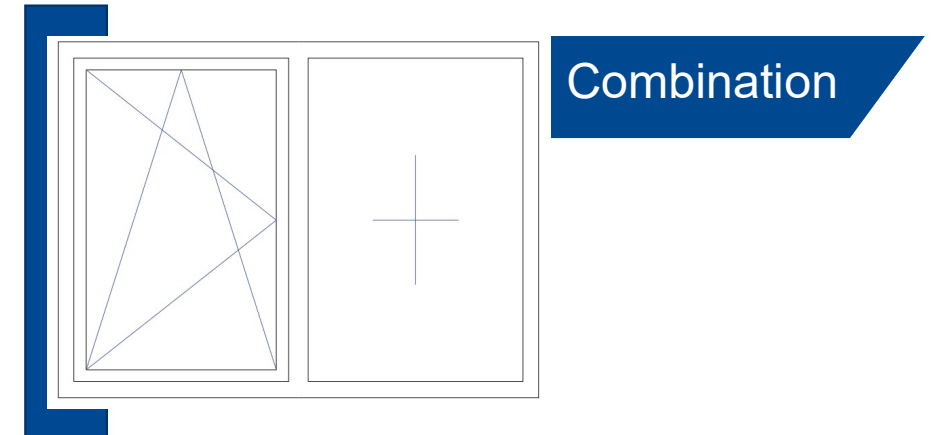
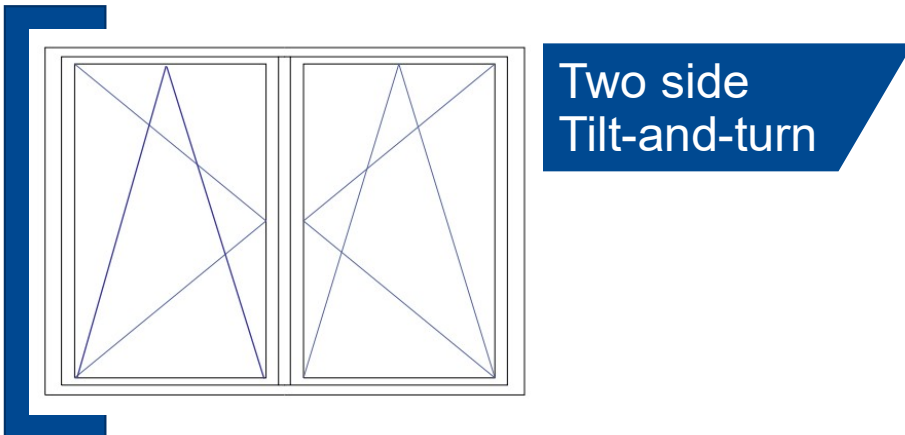
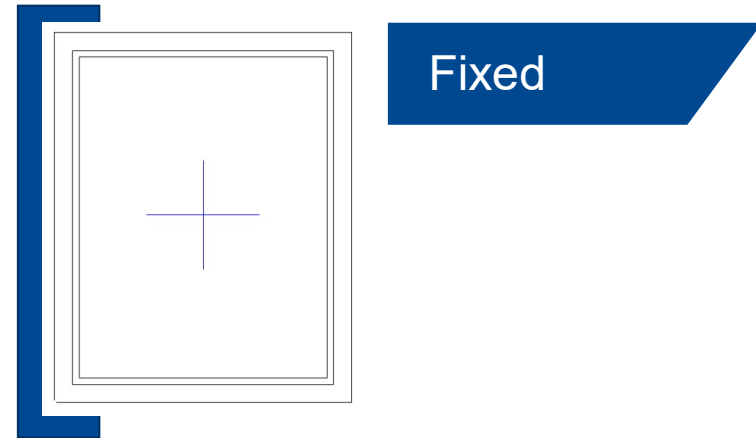
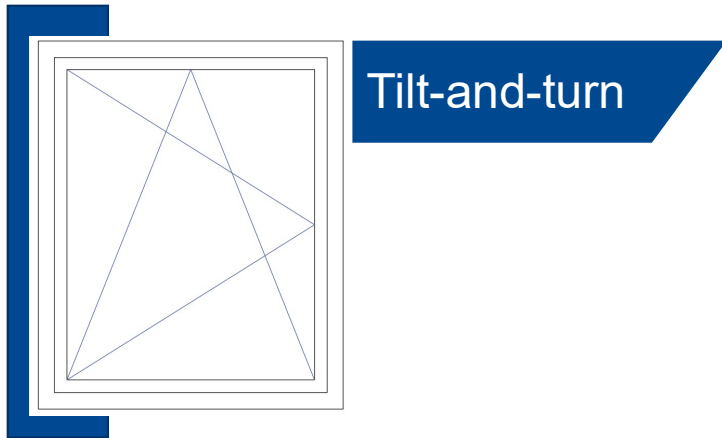


European steel reinforced
vinyl windows

European windows = inwards opening windows



Types of openings

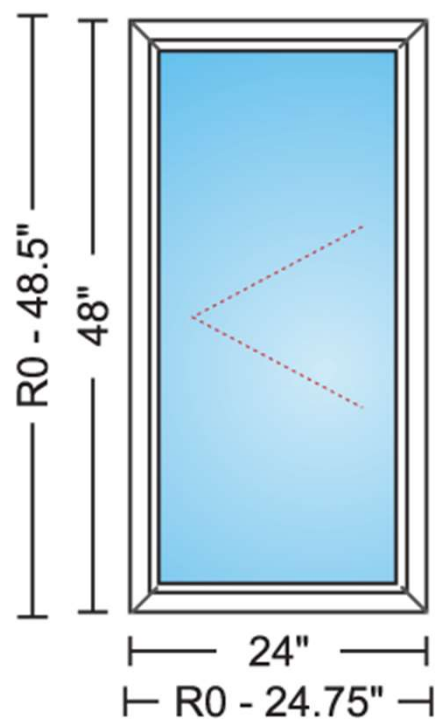


Micro-ventilation

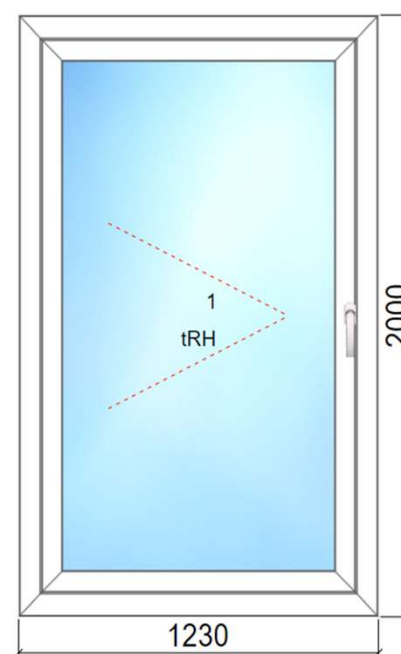
Fresh air can consistently circulate through the room whether you are sleeping at night or leaving the house for an extended time. This does not affect the overall safety of your window as it is kept and locked in place the same way as it would in a closed position. Furthermore, the temperature loss is kept to a minimum considering the slower airflow going in and out of the room.



MICRO VENTILATION WINDOW



**American
windows
drawings
from outside
of the house**



**European
windows
drawings
from inside
of the house**

Opening type mark



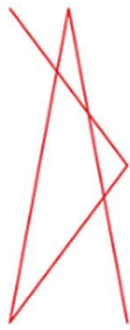
Turn left,
inward



Tilt, inward



Turn right,
inward



Tilt and turn
left, inward



Tilt and turn
right, inward



Fixed, X



Fixed, +



Turn right,
outward



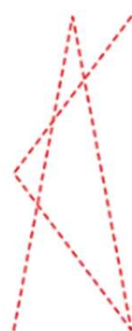
Tilt, outward



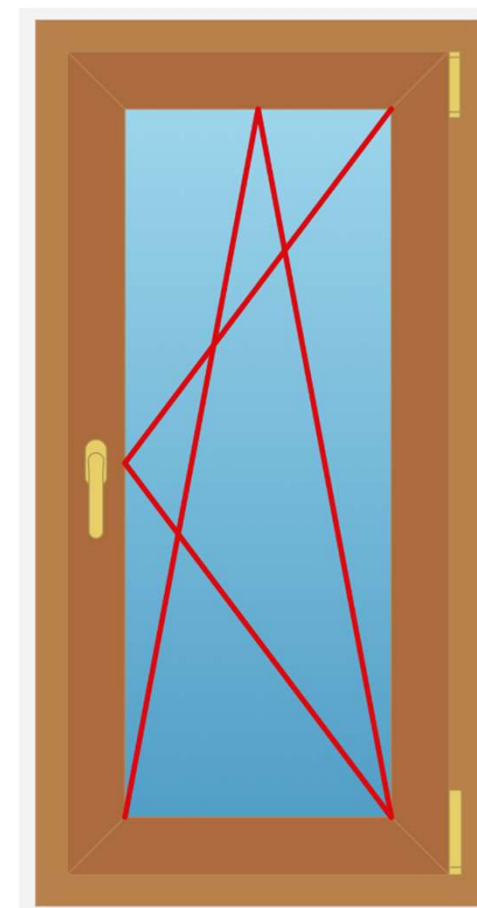
Turn left,
outward



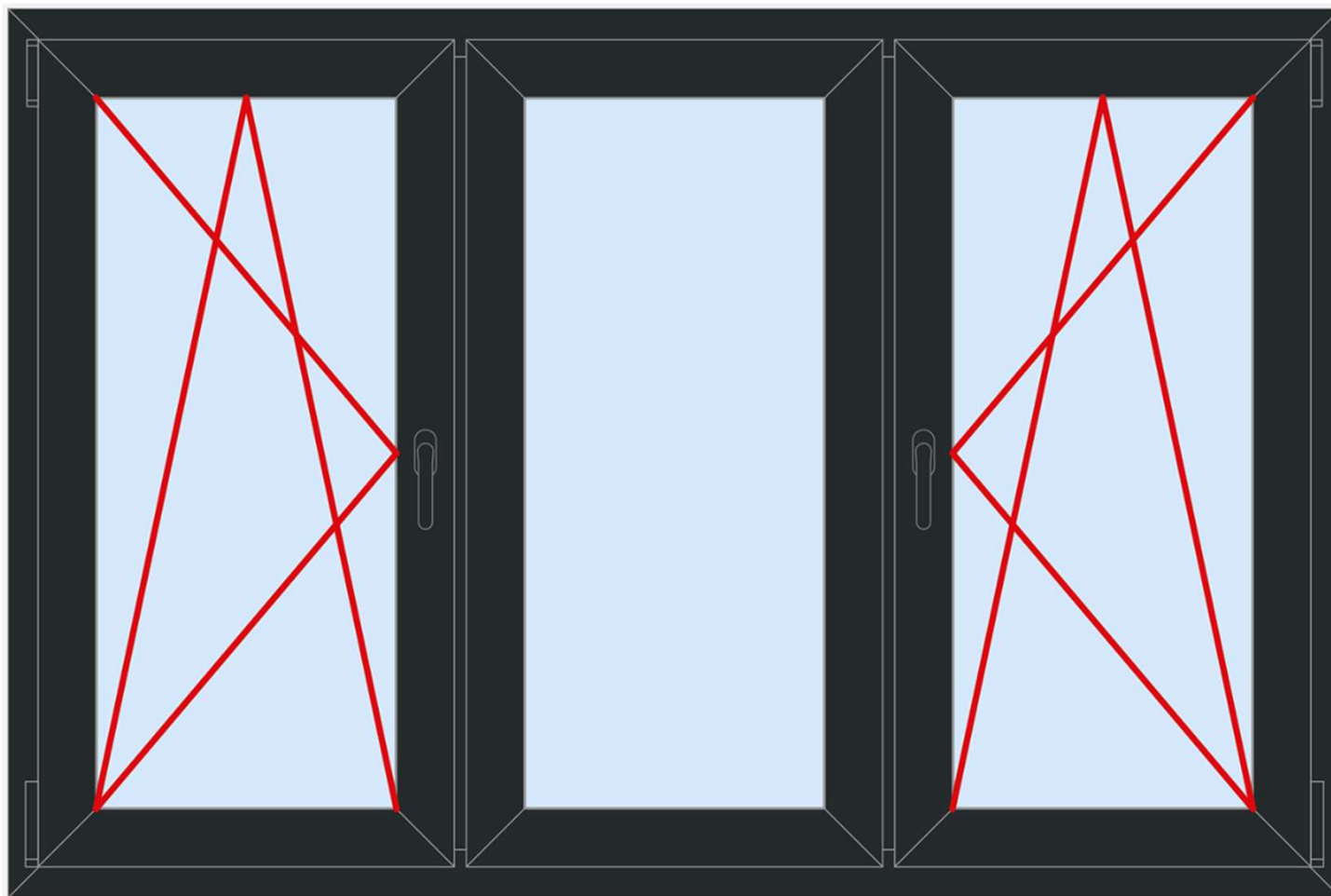
Tilt and turn
right, outward



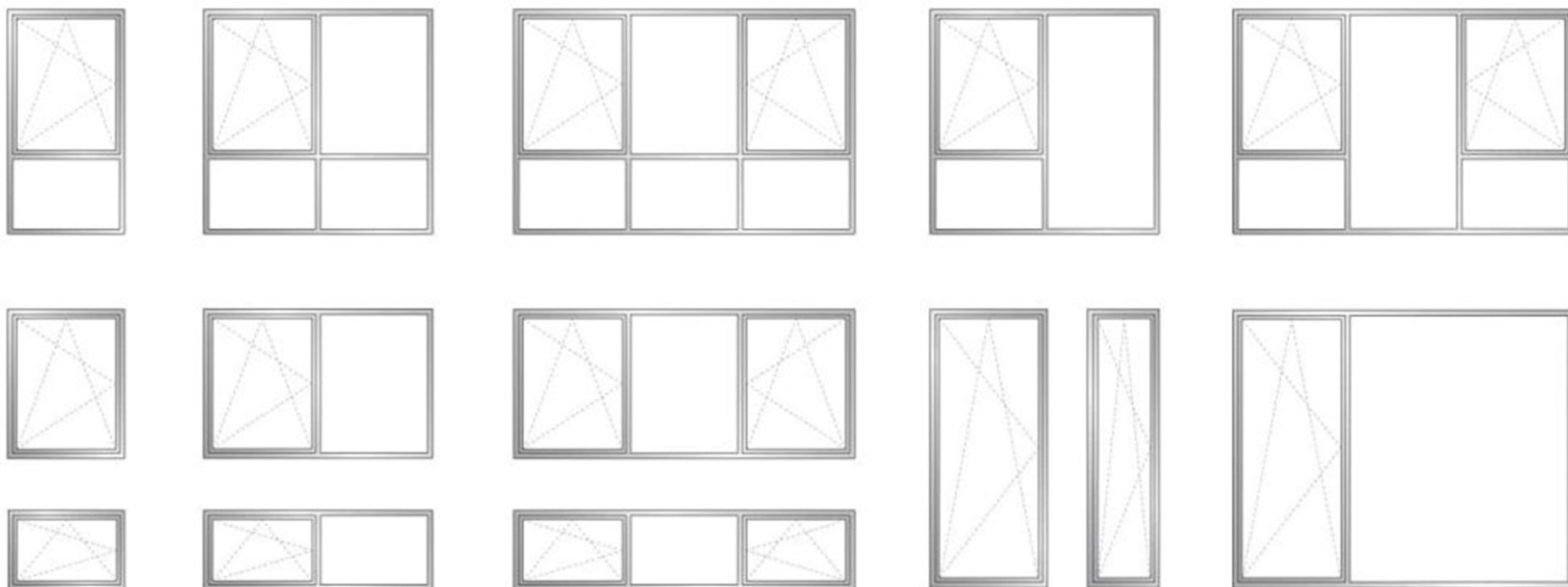
Tilt and turn
left, outward



Different combinations between fixed and opening parts



A lot of different combinations



Steel inside the profile



Data from 2022 Top Manufacturers Report

PRODUCT UPDATES ANTICIPATED IN RESPONSE TO NEW ENERGY STAR 7.0 GUIDELINES

- Triple-pane: 71%
- Gas fill: 57%
- Skinny triples: 20%
- Dynamic glass: 17%
- Thermally broken aluminum: 23%
- Other: 29% (includes spacers, foam fill, glass coatings and a larger IG pocket)

73% plan to update products as necessary

PRODUCT FEATURES ASKED FOR BY CUSTOMERS

- Customized products (includes color, hardware, options, finishes): 84%
- Energy-efficient products: 82%
- Larger windows/doors: 76%
- Impact-rated products: 42%
- Sound abatement: 38%
- Historically accurate products: 24%
- Other: 6%

<https://www.windowanddoor.com/article/2022-top-manufacturers-report>

Max. dimensions of elements

Fixed glass

White elements

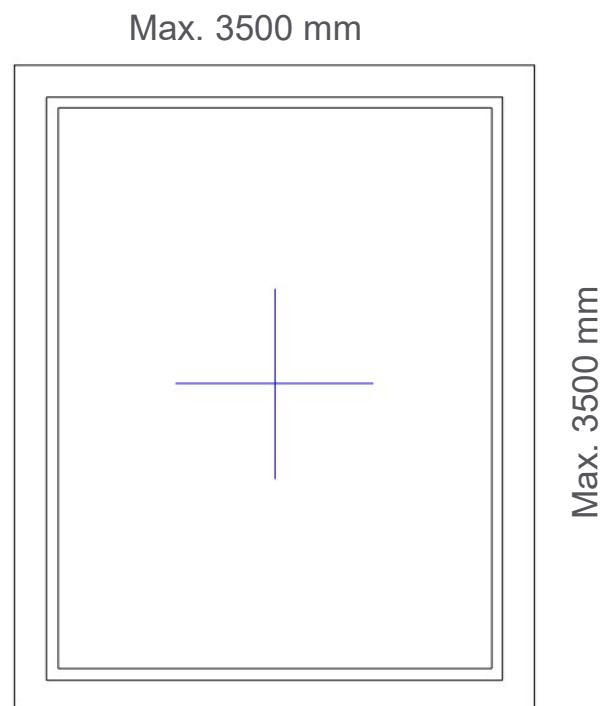
Max. area of element: **7,0 m² (75 ft²)**

Max. length of frame: **3,5 m (115 ft.)**

Colour elements

Max. area of element: **6,0 m² (65 ft²)**

Max. length of frame: **3,2 m (105 ft.)**



Max. dimensions of elements

Sash

White elements

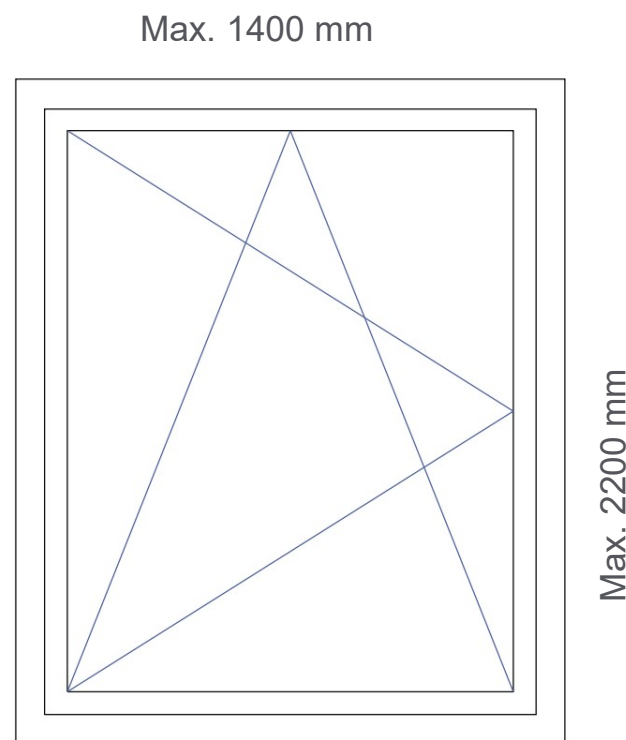
Max. area of element: **2,2 m² (24 ft²)**

Max. length of frame: **1,5 m (50 ft.)**

Colour elements

Max. area of element: **2,1 m² (23 ft²)**

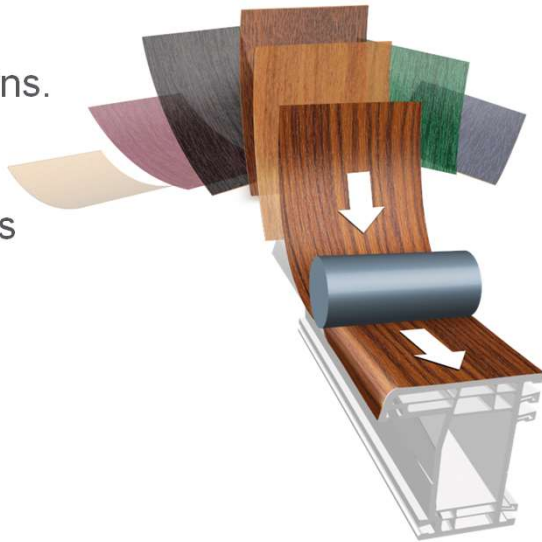
Max. length of frame: **1,4 m (46 ft.)**



Lamination options

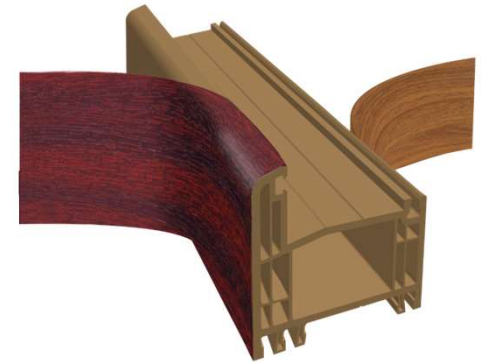
A variety of coloured films

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.



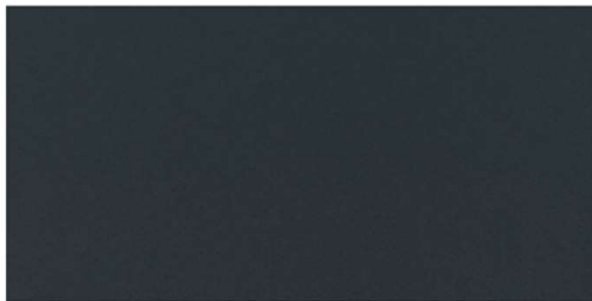
Color base of profiles



FX Film palette



FX films in stock (for outside use)



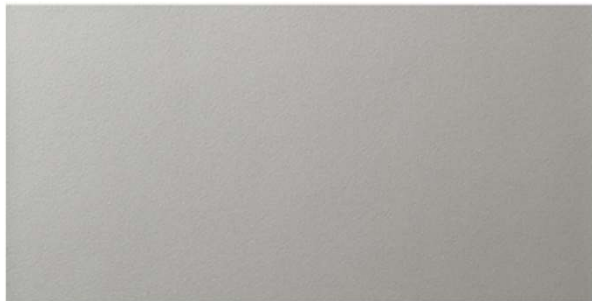
Anthrazitgrau 7016 Glatt 2 /



Ash C 35 N Glatt / Ash C 35 N Smooth



Black Smooth 2



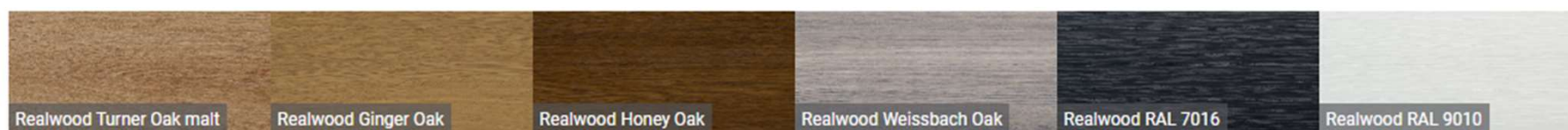
Silber D Glatt / Silver D Smooth



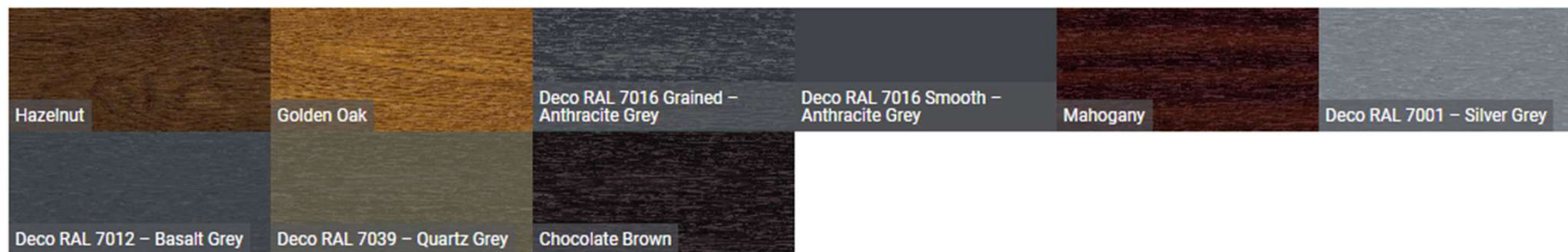
Trompet C-32 N Glatt / Trompet C-32

Standard films in stock (only for internal use)

RealWood - exclusive wood decor foil

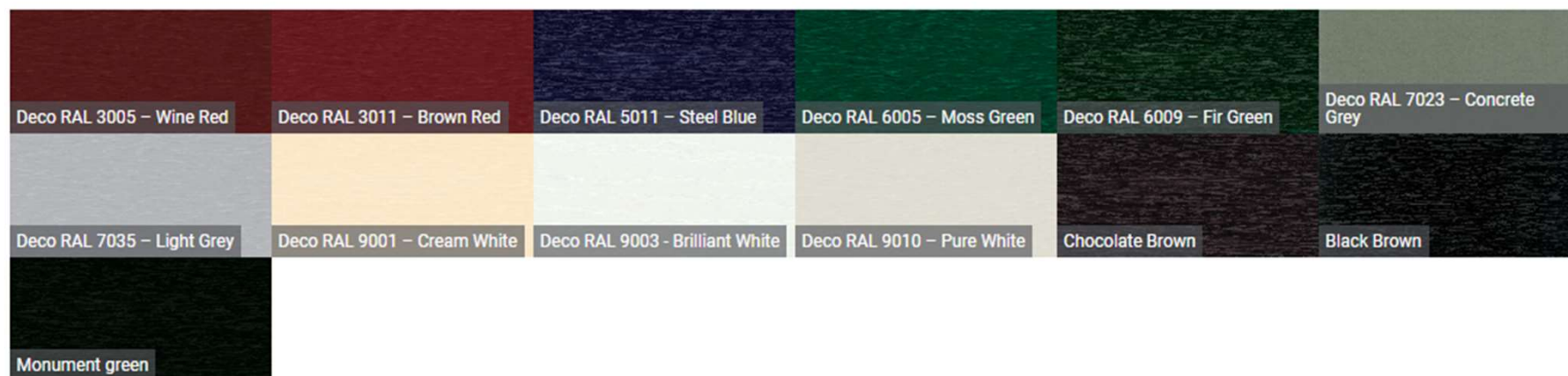


Standard decor foils



Non-standard films in stock (only for internal use)

Non-standard: Plain colours, grained

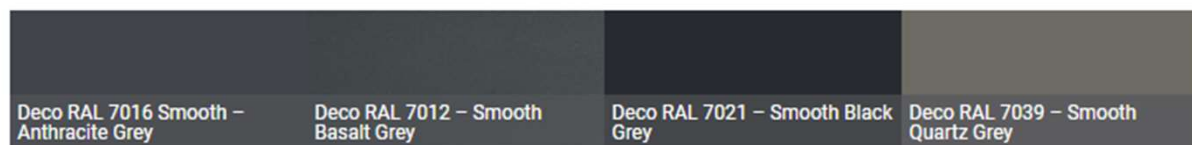


Non-standard: Wood decor foils

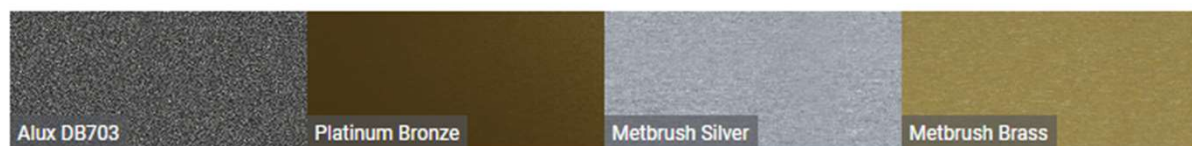


Non-standard films in stock (only for internal use)

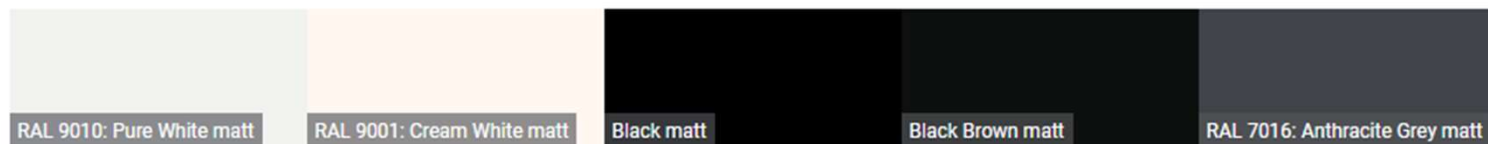
Non-standard: Plain colours, smooth



Non-standard: Metallic effect foils



Non-standard: Plain colours, matt

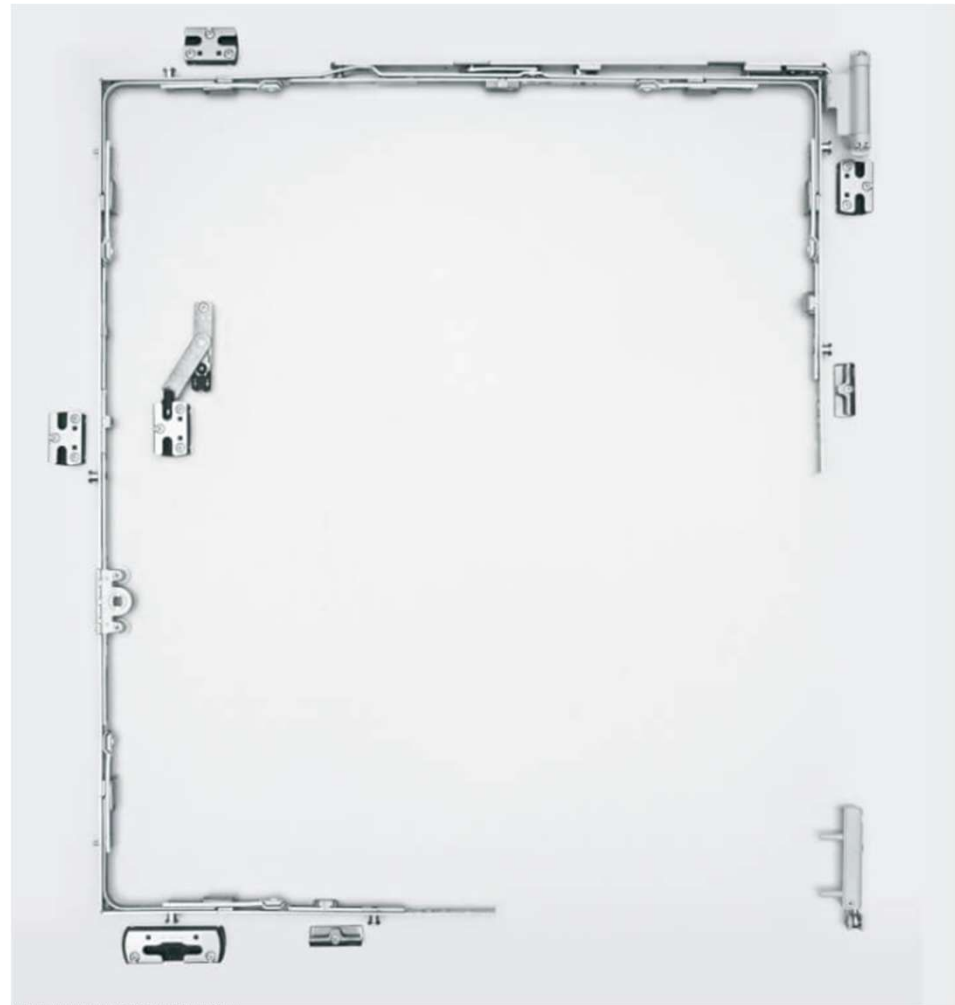


WINKHAUS Fittings



WINKAUS activPilot

With windows and glazed doors, it is not only the glazing that is a security factor, but above all the hardware: because suspected burglars usually bypass breaking through the glazing altogether due to the loud clanking noise and rather try to open the window quietly with a lever or crowbar. The WINKHAUS activPilot® window fitting is an extremely high-quality security fitting that offers a high level of operating convenience. It optionally achieves resistance class RC 1 or RC 2 recommended by the police.



OTHER AURORA WINDOWS AND DOORS PRODUCTS

LINEAR®

meets the highest demands
for a profile with 70 mm+
construction
depth in

Design

Performance

Economic efficiency

Versatility

This has been the goal of
product development from
the very beginning



Sliding doors

Tilt-Slide Doors - PSK

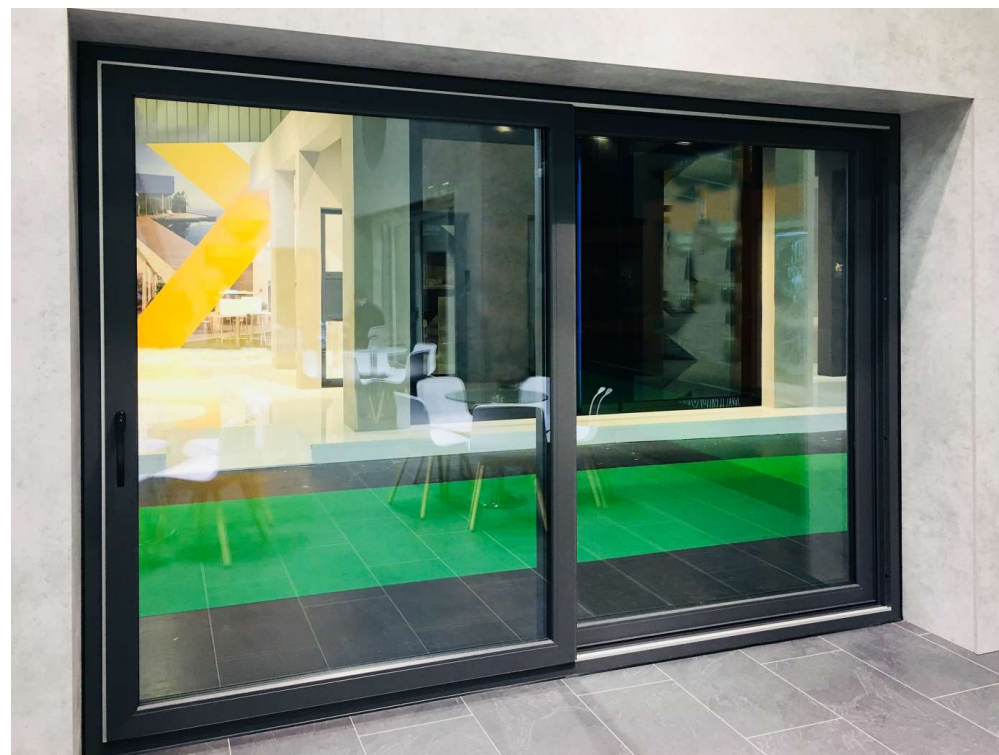
- Easy handling
- Big glass surface
- Narrow visible frame
- The threshold has the same profile of a frame



SMOOVIO®



From outside



From inside

S 9000 HST

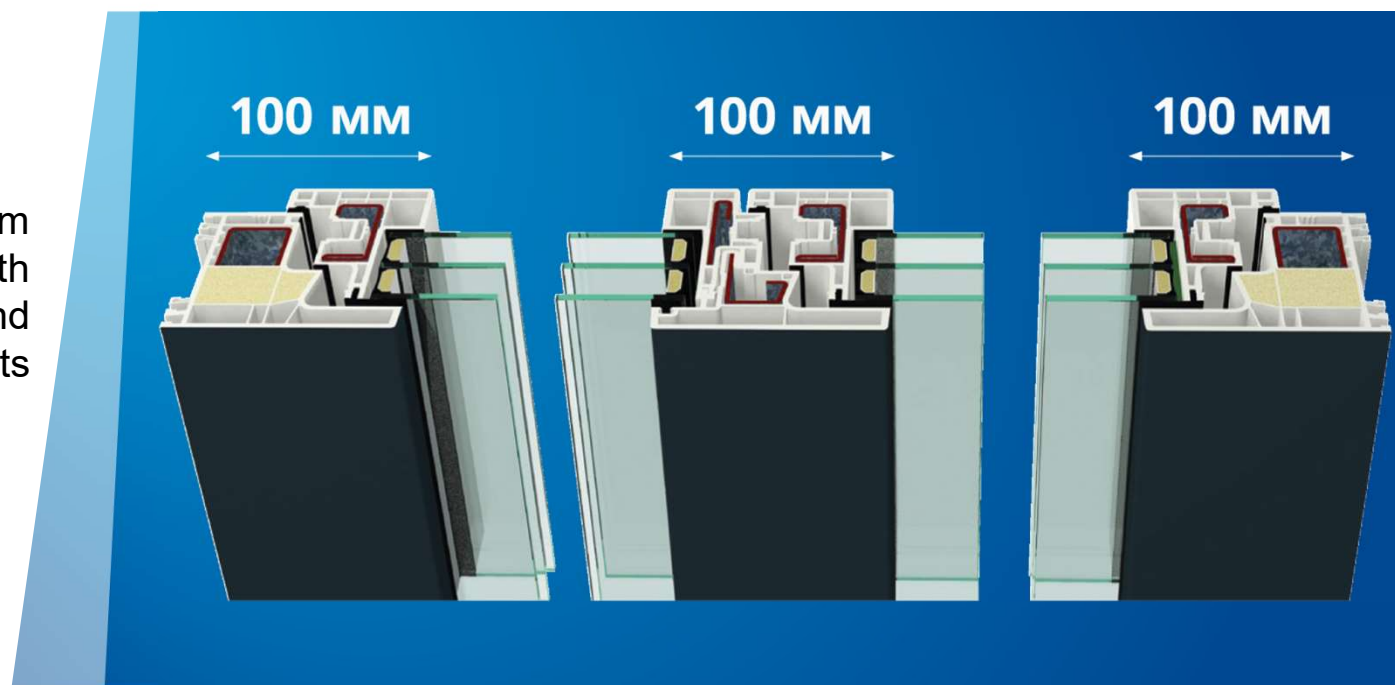


KUBUS®

Symmetry and elegance

Due to the uniform system dimensions of 100 mm, both with the frame-wing combination and with the mullion, all frame parts have the same sightline.

An elegant symmetry emerges, which highlights the clean design of KUBUS®.



KUBUS®



Almost invisible



AURORA
WINDOWS AND DOORS



Half-hidden

KUBUS®



Coextrusion

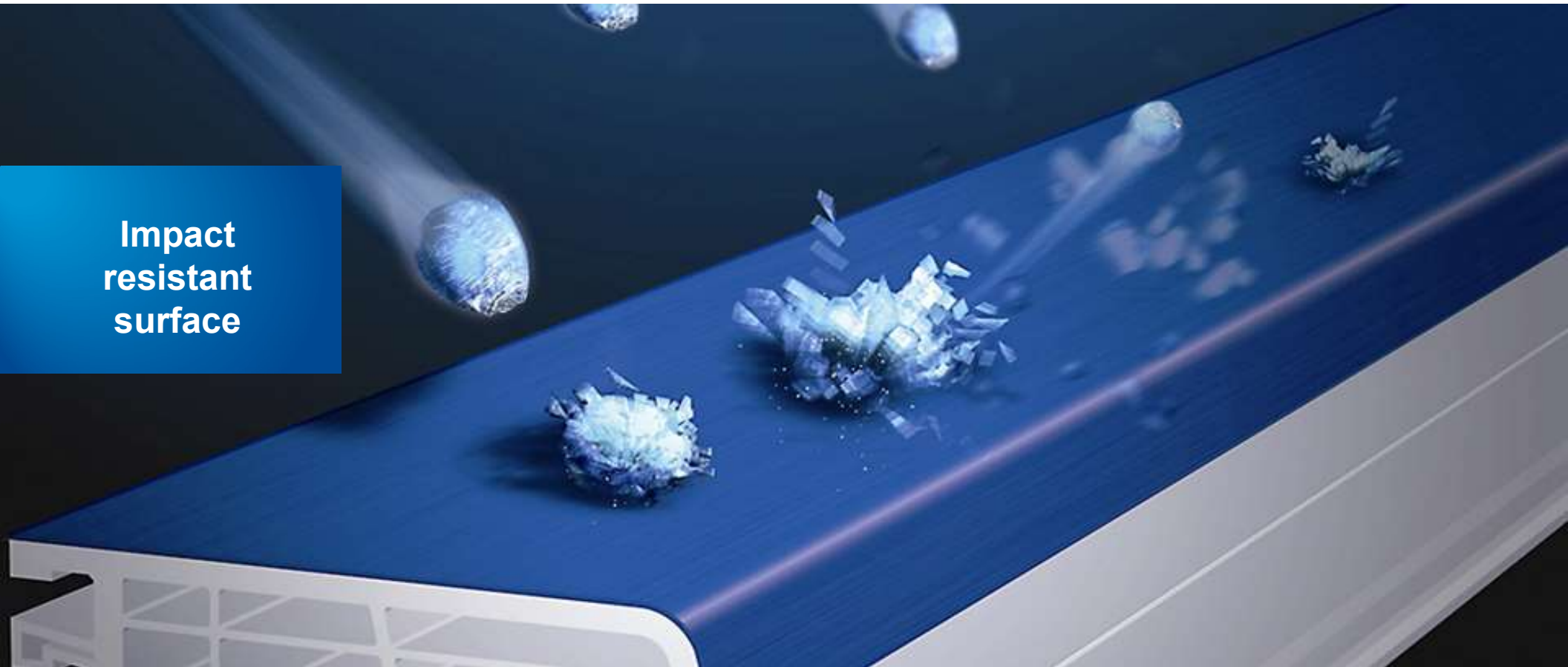
No compromises with
coloured windows for
almost 40 years

acrylcolor



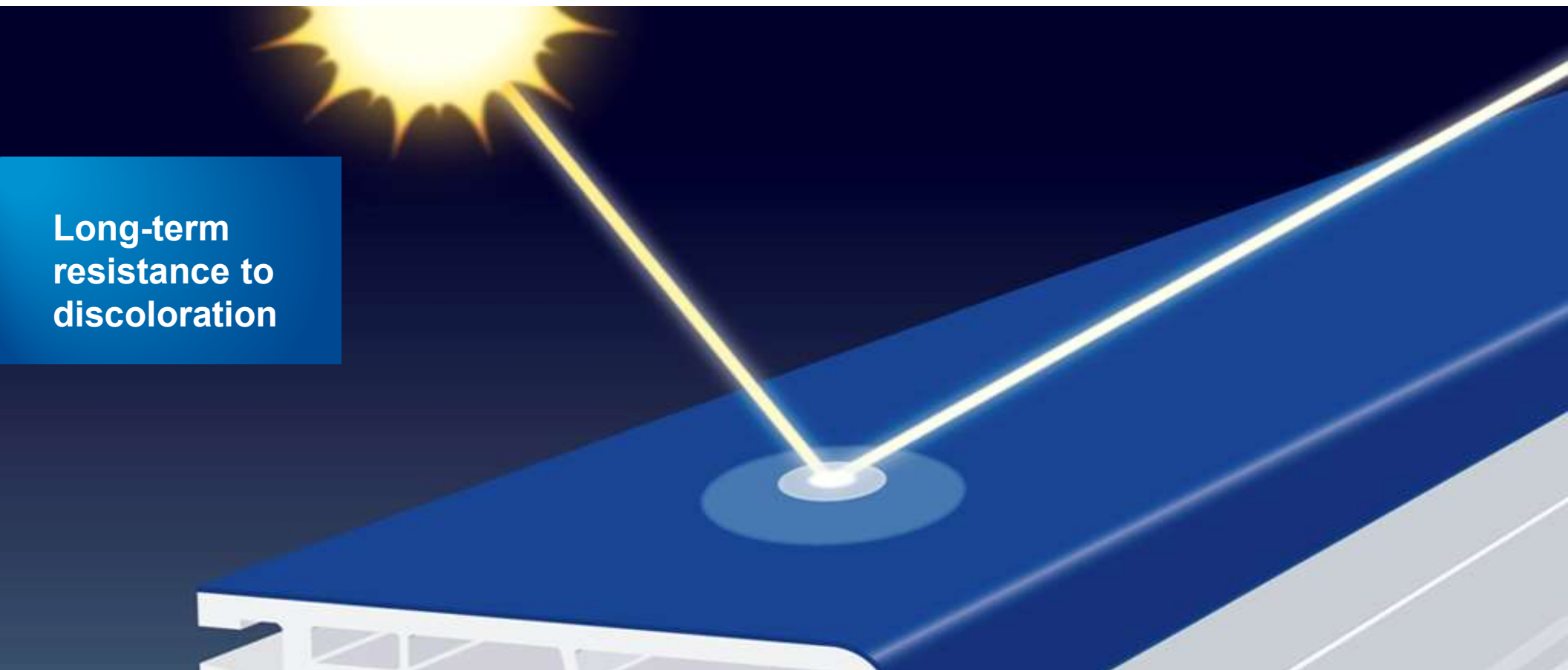
Acrylcolor®

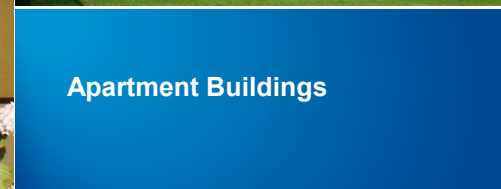
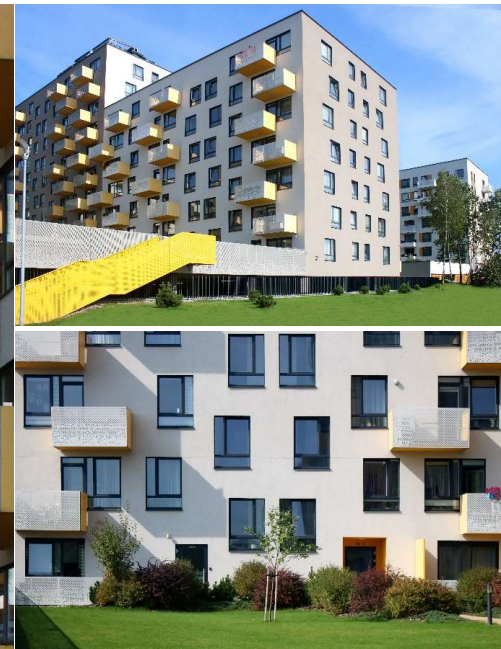
Impact
resistant
surface



Acrylcolor®

Long-term
resistance to
discoloration







Public Buildings

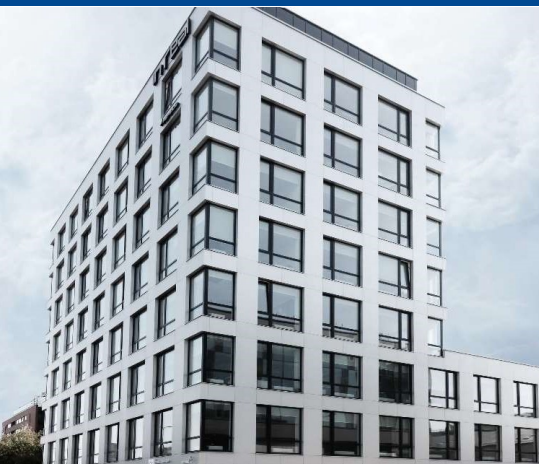




Hotels



Business Centers





Residential Houses





**Thank you very much
for your attention**