



Windows for life.

They provide us with natural light, give rooms their character and create the right atmosphere. They make the architecture of a building what it is and have a positive impact on our environmental balance. Windows are an important part of our lives. And they are an investment for decades.

We at Finstral make windows for life. And have been doing so for over 50 years. We do practically everything ourselves, including development, production and assembly. This allows us to define and guarantee our own quality standards. What also sets us apart from other window manufacturers is our unique range: its modular construction always offers the greatest possible freedom of design when composing your perfect window.

Do you want to see what diversity can mean? And plan your individual window? Then come and visit us at a Finstral Studio near you, or arrange a non-binding consultation with a Finstral window professional.

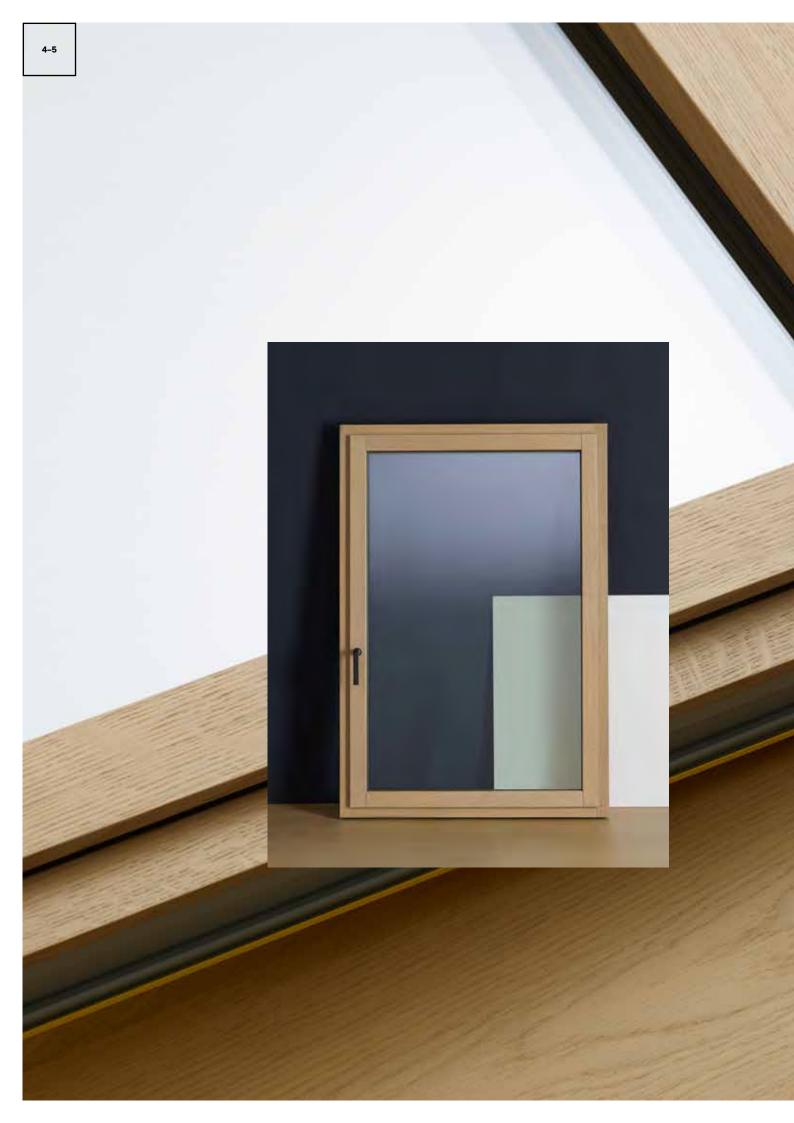
Enjoy your new windows!

Luis and Joachim Oberrauch Management

- O4 A vision of beauty.
- of well-being.
- OB A commitment to sustainability.

Compose your own window.

- 180 Company.
- 184 Range.
- 190 Keywords.



A vision of beauty.

A place becomes a home when we begin to design it according to our ideas. We design and discard, we play with colours and materials. So why should we plan our windows with any less care? They enhance the architecture from the outside, while from the inside they set off the interior design. Windows give form to our idea of beauty. That is why we at Finstral have opted for modular development and construction. This means that you always have freedom of choice in terms of frame shape, material, colour and surface and can compose each window individually.

Interview

Architect Perrine Ernest speaks about **Design**

18

Interview

Window consultant Lorraine Elsman speaks about **Choice**

106



A sense of well-being.

We are creatures of the light. As soon as it becomes light our body reacts and tells us to wake up. When the sun goes down, we get tired. Too little daylight will disturb our inner rhythm and make us ill. But, because we now spend 90% of our time inside, we have to bring natural light indoors. Finstral windows let in up to 25% more light. This is thanks to their unique narrow frames and the particularly translucent glass that we use. Effective sun and noise protection, burglar protection and other extras all add to the good feeling.

Interview

Senior police officer Ewa Litzenberger speaks about **Security**

Interview

Lighting planner Prof. Peter Andres speaks about **Light**

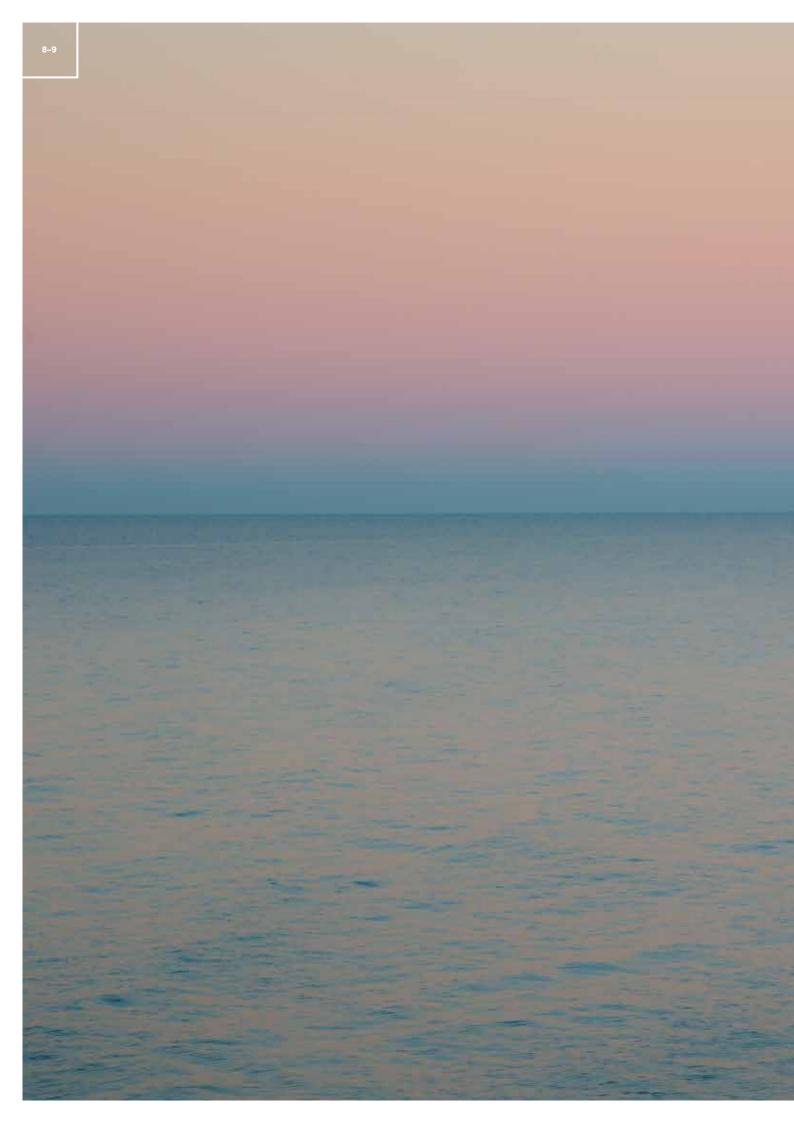
Interview

Sound insulation engineer Ruben Erlacher speaks about **Quiet**

52

58

90



A commitment to sustainability.

Responsibility cannot be delegated. This also applies to the respectful use of energy and resources. Sustainability is an important topic, especially on construction sites.

It's actually quite simple: what you don't use won't harm the environment. And the higher the quality and thus the durability of a product, the better its ecological balance. Whether you are heating or cooling, Finstral windows offer perfect insulation and thus save valuable energy. And, because we do everything from development to production ourselves, we can guarantee that our windows are 100% recyclable and manufactured with the minimum of materials and energy consumption.

So as to last a lifetime.

Interview

Product developer Helmuth Seebacher speaks about Insulation

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Interview

Managing Director Joachim Oberrauch speaks about **Consistency**

Compose your own window.





From idea to implementation.

Wood or aluminium? And how big should it be? Are you thinking of laminated safety glass? Everyone has a different idea of the perfect window. That's why we not only offer you the greatest possible variety, but we will also accompany you through the entire planning process – from the first idea to the finished window: the Finstral planner gives you all the information you need to work with a Studio-based Finstral consultant so as to make the right decisions for your perfect window.





We will accompany you through every stage of planning using our 4-finger principle. Each finger stands for one area: from the façade to the window core, from the living area to all-around.

Exterior		Centre		Interior		All- around	
Always individual design.	14	Always the right insulation.	80	Always individual design.	104	Always the simplest procedure.	160
Material Colour/Surface Frame shape Style elements	15 16 23 46	Heat/Cold Noise Sealing	81 88 92	Material Colour/Surface Frame shape Handles/Hinges Accessories	105 109 118 126 131	Coordination Installation Acceptance	161 164 165
Colour/Surface Frame shape	16 23	Noise	88 92	Colour/Surface Frame shape Handles/Hinges	109 118 126	Installation	161 164

You determine the design and protection functions of your window.

Exterior - the façade side.

Large glass surfaces or traditional window style with glazing bars? Aluminium or wood look, powerful or subtle colours? The aesthetic effect of windows can hardly be underestimated: they make the façade of a building what it is. At the same time, they keep out burglars, rain, cold and noise, making us feel safe and secure at home. Finstral's requirement for a perfect window is to be able to combine aesthetics and function without compromise. Which is why we always offer you maximum design freedom and guarantee protection that is always reliable.



Always individual design.

Material Colour/Surface Frame shape Style elements Always reliable protection.

Burglary Sun/Heat Privacy Insects

Your perfect window: what will it look like?

You want a functionally high-quality window that will last as long as possible. Of course. But you also want to give expression to your individual style. That is why we always offer you full design freedom for the façade side in terms of material, colour and surface, frame shape or the appropriate style elements. With Finstral you can compose your perfect window yourself.

Always individual design.

Material Colour/Surface Frame shape Style elements



Material



We make no compromises with the material that goes into our windows. That's why we offer two materials for the exterior: PVC and aluminium, both versatile, durable, recyclable and weather resistant. For almost 50 years now we have realised every process for PVC ourselves, from mixing raw materials to manufacturing profiles; the aluminium profiles are produced for us from our drawings. What is right for you and your home? That all depends on the building's style and your needs. You decide what you need and what you like. And, regardless of whether you choose classic PVC or modern aluminium, both variants are exceptionally easy to maintain. Because our window frames have simply to be cleaned rather than regularly treated.

← All ingredients for our PVC profiles are strictly controlled prior to processing.

Material

PVC



Classic and cost-saving.

PVC is our all-round talent: robust, economical and versatile. Our outstanding (and secret) PVC formulation with its low chalk content is the result of 50 years of experience with PVC. Our windows will thus remain stable in shape and colour-resistant for decades.

Advantages:

- cost-effective
- durable and robust
- weather and water resistant
- resistant to salt and chlorine in the air
- easy to clean
- recyclable



Modern and high quality.

Aluminium veneer offers plenty of freedom as regards colour and surface design – and is also particularly heat-resistant and easy to care for: dark frames in particular retain their shape even with high sun exposure. Water and dirt simply run off.

Advantages:

- versatile design: with colours and textures
- durable and robust
- weather and water resistant
- dirt-repellent
- easy to clean
- recyclable
- can also be pre-anodised on request

Material

Aluminium



Colour and surface

With Finstral you will always find your favourite colour for your favourite window. And, to ensure the window surface is always just right when designing the façade, other important features can also be decided: extra smooth, embossed or satin finish, or fine structure and wood decor. However, no matter which of the numerous options you choose for PVC or aluminium, Finstral always offers the best processing.

← Embossed surface – in wood look.

Easy to care for.

Finstral's distinguishing feature since 1984: embossed and satin-finish surfaces. We are the only manufacturer to emboss textures directly into the material rather than sticking them on as a film. This not only looks good, it also makes the surface scratch- and dirt-resistant.

Embossed surfaces: the stylish look of lacquered wood – but more weather-resistant.

O5 O7

Antique White Pearl White embossed embossed

Satin-finish surfaces: satin matt and sober modern look, comfortable feel.



PVC

Embossed and satin finish

Advantages:

42

White

embossed

- no production-related traces in which microdust can settle
- fewer micropores, meaning windows are dirt-resistant and easy to clean
- completely through-dyed for a high-quality look even with open windows
- extra UV protection for colour-sensitive grey tones

PVC

No embossing

01White extra smooth

Classic.

Smooth white surfaces remain the classic when it comes to PVC windows. However, dirt and microdust can easily settle on the smooth profile surface. Our answer is: White extra smooth. The dirt-sensitive micropores of this particularly smooth surface are closed by compressing them in the extrusion process. This makes it dust-resistant and easier to maintain. White extra smooth is available for FIN-Window.

Advantage:

 hardly any traces and fewer micropores, making it easy to care for and dirt-resistant



PVC

Embossed wood decor

Visually natural.

Looks real – for real protection: a PVC window with wood decor is hard to tell apart from an actual wooden window. It is however easier to clean and less sensitive to sun, rain or dirt. In addition, unlike wood, PVC does not have to be regularly treated and painted.

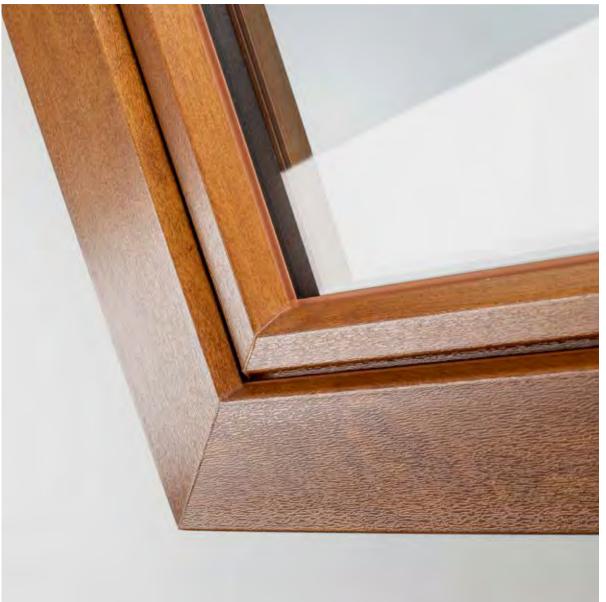






Advantages:

- the wood decor is inextricably fused into the PVC
- always with a high-quality embossed surface



Wood decor.

To create the typical wood look the wood decor is fused into the PVC and the surface is embossed with a wooden structure. The frame is also completely through-dyed in a matching brown tone. This means that the window also looks good when it is open.

"Windows give form to entire buildings."

Architecture is an interplay of proportion, form and material. And a pragmatic meeting of needs. Architecture is a want and a need. And windows? They are an indispensable part of this struggle for functionality and aesthetics. Architect Perrine Ernest speaks about the key role of windows in the design of façades and buildings.

What is the role of the window as an architectural design element?

Perrine Ernest: Glass surfaces are of utmost importance in the design of the building envelope. In contrast to a solid wall, glass reflects – if you like – the absence of material. Windows give a rhythm to surfaces and ensure a certain lightness. Windows are conceptually an important design element of the architectural language. They are the starting point for a whole series of geometrical games and help in composing the structure as a whole. Windows give façades their character and give form to entire buildings.

As an architect, what are the aesthetic criteria that you use when selecting windows?

This depends on the particular building and is a function of the architectural style and the specific requirements. The overall result must be harmonious. What can be seen at the moment is a tendency to "delete" window frames. Profiles are becoming thinner and thinner and thus almost invisible. From an aesthetic point of view, however, it can be just as interesting to emphasise the frames and consciously provide accents. For example, you could mark window sashes or highlight them by changing the material.

To what extent do the modularity and materiality of windows influence the architecture?

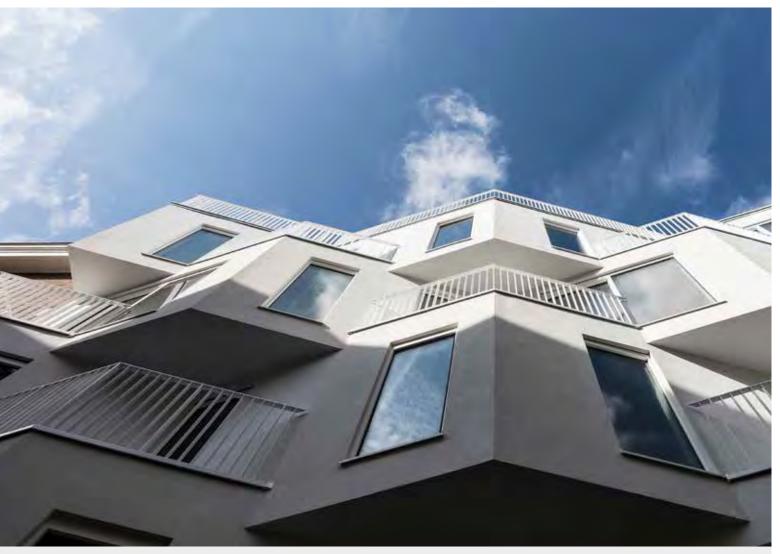
Simply put: our freedom to design increases with the freedom of form. A large selection of materials, colours and structures that can be combined in modular fashion infinitely extends our possibilities. And it is the same for details. From the colour of the glazing beads to the spacers between the panes, the structure of the glazing, its reflection... everything can be individually designed.

But it is always a matter of how the interior and exterior are presented...

Yes, for example, windows can frame views or play with perspectives. Large glass surfaces in particular can blur the boundaries between interior and exterior and create a special spatial effect. Small rooms too can be opened with cleverly placed windows and thus acquire a certain amount of space. Light gives form to spaces.

How important are windows for well-being and quality of living?

Infinitely important. Windows provide us with light, and we cannot live without light. In addition to indirect natural light, it is also possible to bring direct sunlight into the building by sensible planning of windows. The resulting play of light and



 \uparrow Folded façade: the architectural firm of Specimen in 2019 won the Belgian Building Award "Rookie of the Year 2019" with its KIETUDE multi-family house in Namur.

shadow in the room changes throughout the day and contributes to the feeling of well-being.

What design trends do you see and where is development heading?

Our present is dominated by the question of energy efficiency. Architecture makes an important contribution to sustainability, which can also be seen through the design. The challenge is to keep the energy footprint of buildings as low as possible and to further develop the architectural formal idiom.

How can this be achieved?

On the one hand, by selecting recyclable materials that are manufactured in a way that minimises any harm to the environment. On the other, by producing intelligent building envelopes that not only provide excellent insulation but also for example use passive solar energy. But sustainability can also mean developing flexible buildings that change with the demands of use. This way we can avoid having to carry out conversions.

What role does sustainability play when selecting a product?

The issue of durability and sustainability is critical when selecting a component today. Other criteria, such as price and technical specifications, etc., are also important, but longevity and sustainability are fundamental to the building envelope.



← Together with two other partners, architect Perrine Ernest has since 2014 been running the architectural firm of Specimen in Belgium.



Always individual design.

Zinc Yellow (as shown on the left) or more Olive Brown? Should the window frame blend harmoniously into the overall appearance of the façade, or should it consciously contrast? You decide. With 243 colours, Finstral offers a choice for aluminium surfaces that can meet every wish. And because aluminium is so robust, the coated material will be weather-resistant and dimensionally stable, even for dark colours.



← Always varied: Finstral can offer 185 colours from the RAL colour range.

Aluminium

Full strength

High quality.

Not just your favourite colour, but your favourite red! With a total of 212 colours, our modern, smooth aluminium surfaces mean you will always find the perfect colour for your window design.

A small selection of the colours available:

F05	F09	F45	F90	F91	F92	F93
Antique White fine structure	Azure White fine structure	White fine structure	Grey White fine structure	Pebble Grey fine structure	Platinum Grey fine structure	Orange Brown fine structure
F94	F95	F113	F119	F305	F511	F609
Olive Brown fine structure	Terra Brown fine structure	Pearl White fine structure	Grey Beige fine structure	Wine Red fine structure	Steel Blue fine structure	Fir Green fine structure
F702	F703	F716	F723	F739	F742	F744
Olive Grey fine structure	Moss Grey fine structure	Anthracite Grey fine structure	Concrete Grey fine structure	Quartz Grey fine structure	Traffic Grey fine structure	Silk Grey fine structure
F819	F905	F918	M01	M507	M803	M807
Grey Brown fine structure	Jet Black fine structure	Papyrus White fine structure	White matt	Brilliant Blue	Clay Brown	Fawn Brown
M811	M814	M816	M817	M823	M917	L05
Walnut	Sepia Brown	Mahogany Brown	Chocolate Brown	Orange Brown	Traffic Black	Antique White

Advantages:

- our high-quality powder coating ensures that the corners and edges of the aluminium veneer are also perfectly covered
- dirt resistant and easy to clean
- all RAL colours are available in matt finish; a selection of RAL colours is also available in fine structure – RAL 9017 also in glossy finish



Striking.

Whether sablé tones with a slightly grainy texture, or a metallic effect, our striking colours will lend your windows a vivid surface. The sunlight breaking on it in a variety of surprising ways produces ever-changing reflexes.

A selection of the colours available:



Aluminium

Striking colours

Advantages:

- our high-quality powder coating ensures that the corners and edges of the aluminium veneer are also perfectly covered
- dirt resistant and easy to clean



Powder-coating supplied in-house.

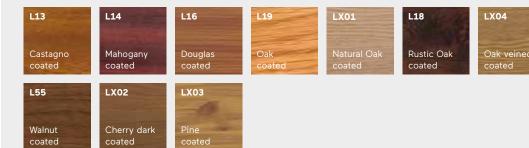
We are one of the few window manufacturers with an aluminium coating system of our own that meets the demanding Qualicoat Seaside criteria.

Aluminium

True to life.

The appearance of real wood, the longevity of aluminium: windows with wood decor give your façade a natural appearance.

Wood decor



Advantages:

- remains unaffected even by strong sunlight and is therefore recommended for very sunny climates
- in contrast to real wood it requires little maintenance or treatment



Characteristic.

FIN-Vista with integrated FIN-Slide Slim-line aluminium-wood exterior in wood decor oak-coated with wood natural oak interior.



Classic or modern? What should your window look like? As the window's outline influences the style of your house like no other component, Finstral produces custom-made frames. And, with a total of five sash variants, it will always have the right profile. We offer the maximum choice of material combinations and frame designs so as to fulfil your aesthetic and functional requirements. Whether for new builds, old buildings or renovations. And what do the five window sash types all have in common? Our frames are always the narrowest in their category.



From classically simple...

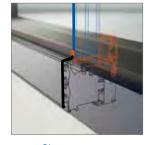
Slightly bevelled and with the typically soft PVC edges: the classic window shape.



Glass

Sash frame

--- Window frame



Glass

Glazing gasket of sash frame

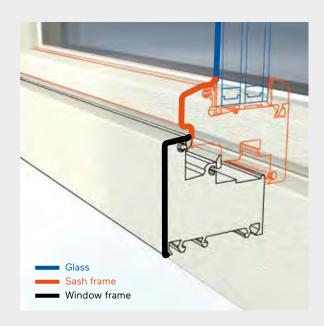
Window frame

...to minimalistically modern.

The Nova-line window sash: transparent lightness thanks to its exterior frameless look.



Classic-line

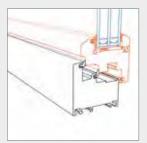


Classic bevelled.

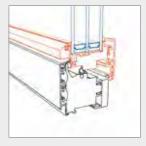
This frame shape is the classic, and is still one of our most popular sash variants. Its features? Slightly bevelled and soft edges. Finstral also offers an aluminium veneer on the frame exterior.

Sash variants for the classic window shape with bevelled edges.

The classic window shape is available in different construction depths and material combinations.*







FIN-Window Classic-linePVC-PVC

FIN-Window Classic-linealuminium-PVC

FIN-Project Classic-line aluminium-aluminium, aluminium-wood, aluminium-ForRes

^{*} For an overview of all windows see table from page 186 on





Classic-line 77
PVC-PVC
in double-sash version,
exterior colour 13 Castagno.

Slim-line Slim-line Twin

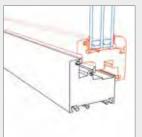


Slim and angular.

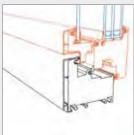
Our Slim-line visible sash frames have elegant, angular profiles that are perfect for creating a delicate old-building look. These frames are among the narrowest on the market. Why is that so good? The slimmer the frame, the greater the glass surface, thus maximising the daylight coming into your rooms.

Sash variants for an old-style window look with narrow frames.

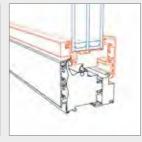
Slim-line is available in different construction depths, material combinations and as lift-and-slide, sliding or folding doors.*



FIN-Window Slim-line PVC-PVC, aluminium-PVC



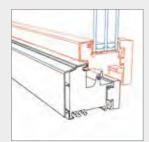
FIN-Window Slim-line Twin aluminium-PVC, PVC-PVC



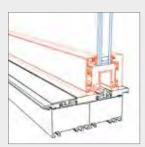
FIN-Project
Slim-line
aluminium-aluminium,
aluminium-wood,
aluminium-ForRes



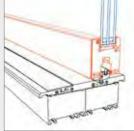
FIN-Project
Slim-line Twin
aluminium-wood,
aluminium-aluminium,
aluminium-ForRes



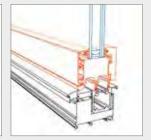
FIN-Ligna
Slim-line
aluminium-wood,
PVC-wood, also available
as Twin composite sash



FIN-Slide Slim-line aluminium-wood, aluminium-ForRes



FIN-Scroll Slim-line aluminium-PVC, PVC-PVC



FIN-Fold Slim-line aluminium-wood, aluminium-aluminium

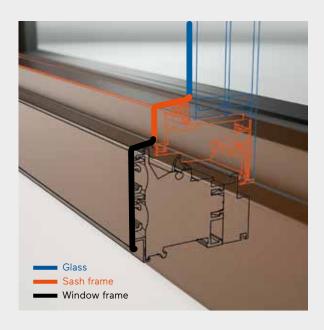
^{*} For an overview of all windows see table from page 186 on





← FIN-Window
Slim-line 77+8
aluminium-PVC
in single-sash version,
exterior colour Sablé 894.

Step-line

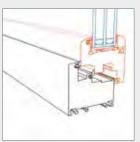


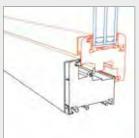
Offset and stepped.

Do you want a sober yet striking profile? Our answer: Step-line. The sashes and window frame of this frame shape are offset on the exterior. This is what gives this variant its distinctive stepped design. The slightly bevelled sash is reminiscent of the traditional external window appearance.

Sash variants for an offset, stepped frame appearance.

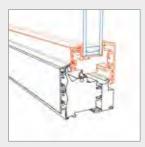
Step-line is available in PVC or aluminium for the exterior and in different construction depths.*





FIN-Window Step-line PVC-PVC

FIN-Window Step-line aluminium-PVC



FIN-Project Step-line aluminium-aluminium, aluminium-wood, aluminium-ForRes



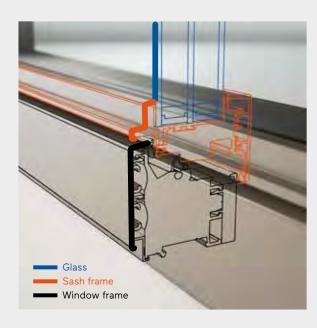
FIN-Slide Step-line PVC-PVC, aluminium-PVC, aluminium-aluminium

^{*} For an overview of all windows see table from page 186 on



← FIN-Window Step-line 90+8 aluminium-PVC in single-sash version, exterior colour 358 Gris.

Ferro-line

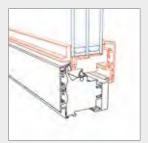


Industrial and distinctive.

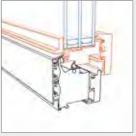
Frames with the aesthetics of classic steel windows – with striking exterior outlines and a delicate steel look, the FIN-Project Ferro-line sash variant is equally suitable for modern new buildings or the renovation of old steel windows. What characterises the industry loft style? On the façade side the visible width is just 26 mm, with a sharply angled exterior outline.

Sash variant for a steel window look as in industry lofts.

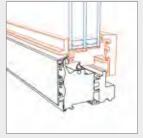
Ferro-line is available in aluminium on the façade side.*



FIN-Project
Ferro-line
aluminium-aluminium

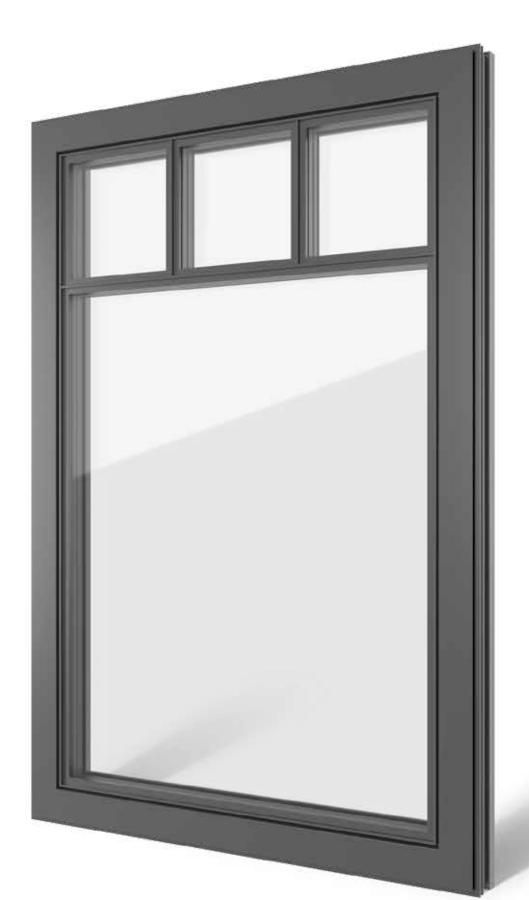


FIN-Project
Ferro-line
aluminium-wood



FIN-Project
Ferro-line
aluminium-ForRes

^{*} For an overview of all windows see table from page 186 on

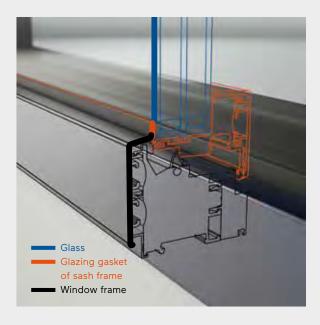


← FIN-Project
Ferro-line
aluminium-aluminium
single-sash with Ferro
glazing bars, exterior
colour M721 Black Grey.

Typically steel windows.

The characteristic look of a steel window is enhanced by Ferro glazing bars.

Nova-line

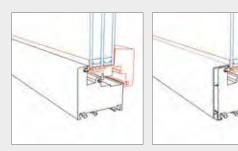


Minimalist.

A large glass area with plenty of light? Our exterior frameless Nova-line window sash can meet this desire. And it also speaks a clear, modern architectural language. By the way: since its launch in 2001, Nova-line has seen numerous imitations – but always with a much wider visible frame. With its reduced profiles, Nova-line can still offer the narrowest frame in its category on the market.

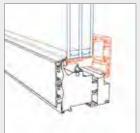
Sash variants for an all-glass look covering frame.

Nova-line is available in different construction depths, in PVC or aluminium for the exterior.*

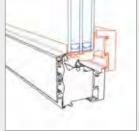


FIN-Window Nova-line PVC-PVC

FIN-Window Nova-linealuminium-PVC



FIN-Project Nova-line aluminium-aluminium



FIN-Project Nova-line aluminium-wood

^{*} For an overview of all windows see table from page 186 on

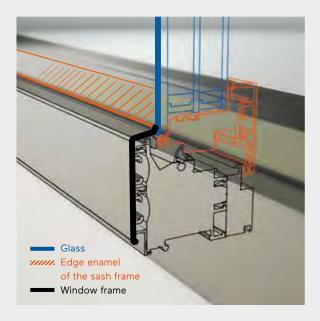


← FIN-Window Nova-line 77
PVC-PVC
single-sash with lower sash,
exterior colour 06 Grey satin finish.

Uniform look.

The glass covering the frame of the Nova-line sash above offers the same appearance as the fixed glazing below.

Nova-line Plus Nova-line Twin



Reduced to a minimum.

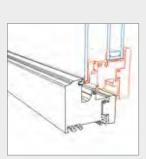
Frame-covering glass for a minimalist architectural style? Our Nova-line Plus and Twin sash variants reduce the exterior outline to the very minimum, as the sash frame disappears completely behind the glass. The glass pane is bonded to the sash frame then enamelled on the back in one of ten colours of your choice.

Sash variants for maximum all-glass look with edge enamel.

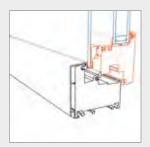
Nova-line Plus/Twin is available in different construction depths and material combinations.*



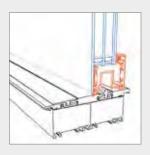
FIN-Window Nova-line PlusPVC-PVC,
aluminium-PVC



FIN-Ligna Nova-line TwinPVC-wood,
aluminium-wood



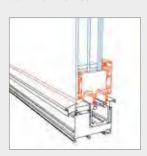
FIN-Window Nova-line Twin aluminium-PVC, PVC-PVC



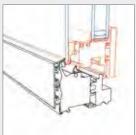
FIN-Slide Nova-line Plus aluminium-aluminium, aluminium-wood, aluminium-ForRes



FIN-Project Nova-line Plus aluminium-aluminium, aluminium-wood, aluminium-ForRes



FIN-Fold Nova-line Plus aluminium-aluminium, aluminium-wood



FIN-Project Nova-line Twin aluminium-ForRes, aluminium-aluminium, aluminium-wood





← FIN-Project

Nova-line Plus

aluminium-aluminium

in double-sash version

with all-glass Nova central
section in exterior colour

583 Sablé and edge enamel

Black – also available with
internal Venetian blind.

Even more transparency.

Our new glass-covered central section with its Nova glass dummy mullion, specially designed for the Nova-line Plus sash, creates the look of a continuous glass surface.

Window frame

Window frame variants.

You have now found the perfect sash frame for your façade? Good. All that's missing now is the external frame for the window. What is the function of a window frame? It is firmly attached to the outside wall and serves as a stop device for the movable sash. Whether classic, striking or minimalist, Finstral is the perfect choice to match your individual style.

Window frame

Classic

Visible yet discreet.

Whether for a modern new build or the refurbishment of an old building, our classic window frames are versatile and suitable for all architectural styles.





Window frame

Block window frame

Characteristic and striking.

The block window frame can often be found in Belgium, the Netherlands and northern Germany. Its depth effect and almost square cross-section (depth: 124 mm) are perfect for all types of clinker construction.



Window frame

Concealed

Reduced to a minimum.

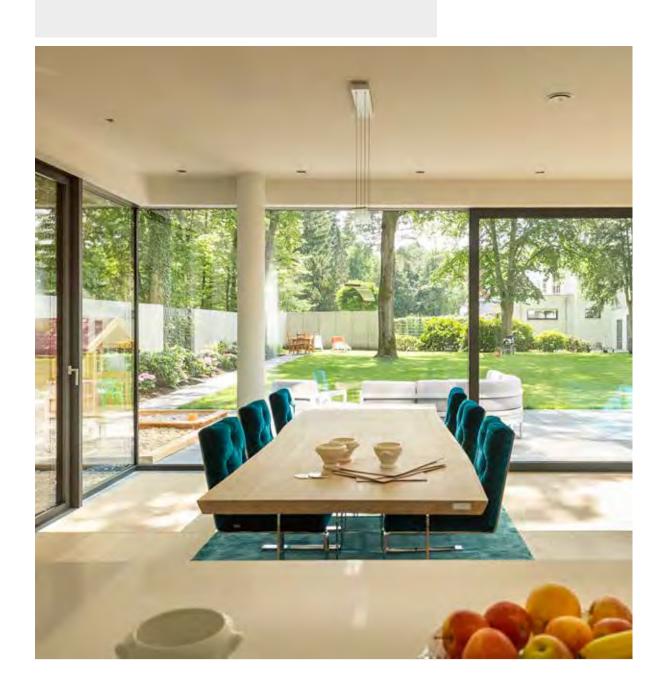
The concealed window frame disappears from view behind the masonry – a solution that is both functionally and aesthetically ideal for modern new builds.

Frame shape

FIN-Vista window wall

Excellent prospects for all who love large glass surfaces.

More than just fixed glazing, yet not some complex façade solution: our FIN-Vista window wall is the smart answer to the continuing desire for large glass surfaces in new builds and conversions. Glass surfaces do not in fact usually extend over more than one floor, nor will their self-supporting length or width normally exceed five metres. The advantages of our modular system are always clear: high-quality components, clever details, individual design options, a high degree of works prefabrication and structural joints that are always approved all combine to make FIN-Vista an attractive alternative to classically planned mullion-transom systems.

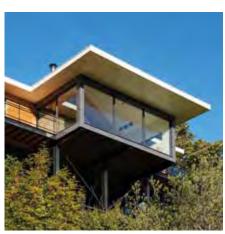






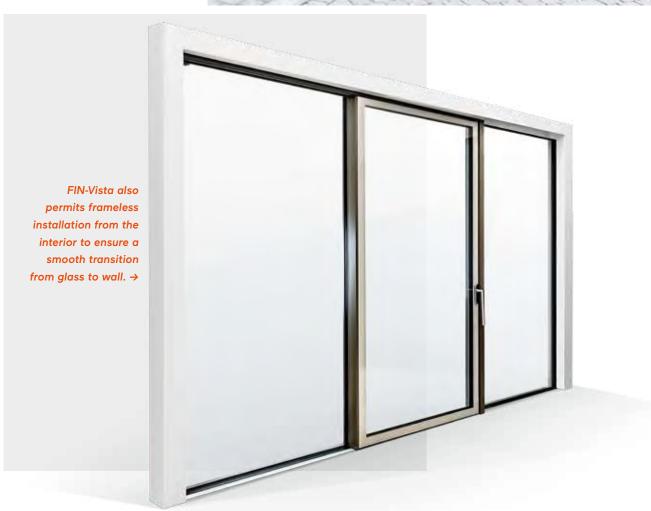


Always glass. Always variety. FIN-Vista window walls adapt to the architecture of your project, to your needs and to your wishes. With FIN-Vista, entry doors can be integrated as equally well as sliding doors, offering spectacular views and perspectives from stairwells to living areas, allowing you to create a real "wow" effect. And everything is always secure, always sealed, always functional.



The visible width of FIN-Vista frames is just five centimetres. Fitting Nova glass joints means that the transoms are covered by the glass. →







Always PVC in the core.

Unlike conventional aluminium window wall systems, FIN-Vista has PVC at the core of the frame profile, as is always the case with Finstral. FIN-Vista can thus easily achieve outstanding thermal insulation values. And, because the system materials can be separated according to type even after decades, FIN-Vista is 100% recyclable.







↑ Profile with PVC core and steel reinforcement.

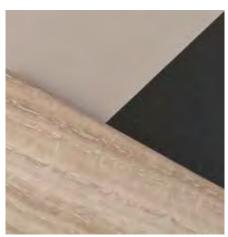
Always stable. Always narrow.

All FIN-Vista PVC profiles contain a steel reinforcement. This makes the frames extremely resilient and, in contrast to conventional aluminium mullion-transom systems, the statically necessary construction depth is generally lower. But the overall impression of a FIN-Vista window wall is also extremely narrow: Finstral does not just install several windows next to and on top of each other, as the frames would then double in size when they meet. Instead we create a matrix of vertical mullions and horizontal transoms, then install the fixed glass or window sash.

The right material for every taste.

All window walls are aluminium-clad on the exterior to protect against wind and weather. You can choose from our entire range of 243 colours and thus ensure the frame design perfectly matches your house. The interior can be of aluminium, PVC, wood or ForRes.

















An all-glass look? Aesthetically pleasing. But always functional.

The window frame into which the sashes or fixed glazing will be installed can be fully cleaned from the inside: the glass seems to flow into the wall. Only a two-centimetre wide aluminium frame remains visible on the exterior: this not only facilitates installation, but also permits the subsequent replacement of window panes without the need for costly masonry work.

FIN-Vista window wall

Glass options



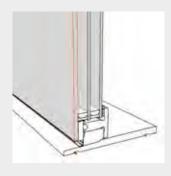
Glass meets glass.

The Nova glass joint means that the glass surfaces are directly touching one another. The mullion is thus covered by the glass, creating a practically continuous surface with no visual interruption caused by a frame.



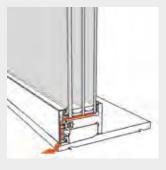
Around the corner with glass.

Glass can also meet glass directly at corners, making a window wall particularly elegant and light.



Glass from top to bottom.

Do you want the exterior glass to extend all the way to the floor? Frame-covering stepped glass makes it possible! Not only does this look particularly elegant, it is also considerably easier to care for: no leaves, dirt or road salt can get caught in the frame edges.



Concealed profile drainage - at no additional cost.

Where the frame is fully concealed, the glazing usually has a channel recessed in the base for draining the profile. FIN-Vista avoids the need for such complex structural joints because the bottom edge of the profile is never below ground. In this way the water simply drains off from the profile and away over the ground.



One window wall. Every opening type.

Create your own personal window wall – it always opens just the way you need it. Whether it is FIN-Slide lift-and-slide doors, inserted window sashes, entry doors... Finstral has the widest range in Europe. And every opening variant can be combined with the FIN-Vista window wall in every colour and material.

Combination with FIN-Slide lift-and-slide door. →



↓ Combination with entry door.



↑ Combination with FIN-Slide lift-and-slide door.



↑ Combination with window opening.

← Combination with FIN-Slide lift-and-slide door.



FIN-Vista window wall

Installation

Looking to new perspectives: uncomplicated, quick and to the highest standards.

Compared to classic mullion-transom systems, FIN-Vista window walls are simple and quick to install. This is because we prepare each component as far as possible in the factory. Thus we ensure that the installation will be carried out safely, cleanly and according to the highest installation standards.

Reduced complexity on site.

With a classic window wall, each mullion and transom is individually assembled on the construction site. With FIN-Vista, however, we deliver factory-assembled frame segments in particularly large formats, using our own flat-liner trucks. This makes installation much quicker and smoother.



Always in form: bonded glass panes.

Once the FIN-Vista frame segments are installed, the insulation glazing is fitted directly on site – glued peripherally, as always with Finstral, rather than using setting blocks. The window wall thus stiffens better and remains permanently stable.



First the construction site, then the window frame.

In order to protect your new window wall during the construction phase, FIN-Vista is so designed that the interior coverings are only applied once all construction work is completed. This avoids any damage to the coverings – and they can be replaced at any time.



Structural joint: ift-approved. Insulation value: perfect.

Finstral also offers an extensive library of detailed building structural joint drawings for FIN-Vista window walls – many of them ift-approved. In addition, the experts from the Finstral Architect Service will help you to clarify all the necessary details.



- prefabricated frame segments for quick and smooth assembly
- insulation glazing is always glued rather than using setting blocks
- interior cover is only installed once construction work is completed
- solid support for all structural joint details



Style elements

Whether instead of or in addition to the glass, style elements can lend a specific accent when composing the façade. Panelling prevents prying eyes and gives materials, colours and surfaces a particularly striking appearance. The nostalgic look of glazing bars creates structure and rhythm for the windows. And, as for decorative elements, these are so to speak the finishing touch for frame design – and they are particularly suitable for retaining the style when renovating old buildings. At Finstral we offer style elements in a wide variety of surfaces and colours that will always match the façade.

← Providing for a classic old-building look: glazing bars.

Panelling materials

Smooth



Timeless.

The plain, elegant and modern design element for your windows: smooth panelling.

Advantages:

- available in all our PVC and aluminium frame colours
- thermal insulation value of up to U₀ 0.6 W/m²K
- also available in security version up to resistance class P5A



Characteristic.

For an effective design for your windows: fluted panelling.

Advantages:

- choice of vertical, horizontal or slanting, fluted on one or both sides
- in all our PVC and aluminium frame colours
- thermal insulation value of up to U_n 0.8 W/m²K
- also available in security version up to resistance class P5A

Panelling materials

Fluted



Panelling materials

Flattened

Classic.

With relief-like surface on the sides: flattened panelling.

Advantages:

- available in all our PVC and aluminium frame colours
- edge shape: bevelled or with groove
- corner shape: right-angled or with rounded cutout
- thermal insulation value of up to $U_{\rm o}$ 0.6 W/m²K
- also available in security version up to resistance class P5A





Strong colours.

Rich colours, burned directly into the glass: enamelled glass surfaces.

Panelling materials

Enamelled

Advantages:

- in ten colours, matt or gloss
- thermal insulation value of up to U_o 0.6 W/m²K

G08



Always everything from a single source.

We produce all our panelling ourselves Only in this way can we ensure that all colours, surfaces and materials will always be a perfect match for the window frame.



Panelling materials

Expressive.

They are characterised by their organic textures and a beautiful matt sheen: synthetic resin surfaces.

Synthetic resin













Advantages:

- available in five colours
- thermal insulation value of up to U_p 0.6 W/m²K

Vivid marbling.

The typical colour play of the material is created during the fusion process: ceramic surfaces.













Filo Pece









Panelling materials

Ceramic



↑ Ceramic panelling Oxide Moro.

- available in twelve colours
- thermal insulation value of up to $\rm U_{\scriptscriptstyle D}$ 0.6 W/m²K



For a typical old-building look.

Glazing bars give windows structure and rhythm and lend them a classic old-building look. You can customise the design to suit the window.



Attached glazing bars.

- Attached glazing bars are available in three design variants: Stil (see illustration on left), Classic (see page 25) and Ferro (see page 31).
- Attached glazing bars are available in all frame colours and surfaces.
- Attached glazing bars are always combined with spacers in the glass. This produces an even more authentic look.



Inside glazing bars.

- Inside glazing bars are available in three visible widths: 26, 18 and 9 mm.
- Inside glazing bars in widths of 26 and 18 mm are available in all frame colours and surfaces.
 The 9 mm variant is available in white and brass colour.
- Inside glazing bars are maintenance-free as they are located behind the glass.

Advantages:

- all glazing bars can be colour-adjusted to the frame
- special glazing bars can be produced on request

Glazing bars

Attached and inside

Decorative elements

Old-building look

An old-building look right down to the last detail.

Decorative elements in the frame colour ensure that the style perfectly matches the renovation project.



Advantage:

 decorative profile and ornamentation always match the colour of the white or silk grey window frame

Your perfect window: always well protected.

When does a house become a home? Once you feel 100% comfortable and safe there. Do you live on the ground floor and need extra protection against burglary? Do you want the maximum possible daylight – but without excessive heat and the sun shining in? We always offer the exact options to protect your windows effectively from all external influences: whether it is a question of burglars, sun, heat, prying eyes or even insects.

Always reliable protection.

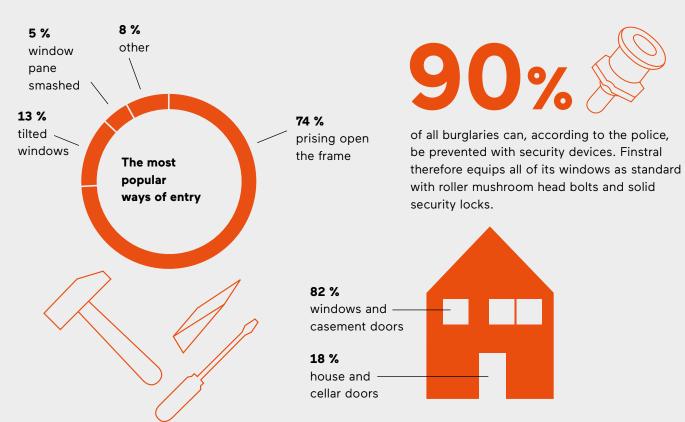
Burglary Sun/Heat Privacy Insects



Burglary

Burglary? No chance with secure windows!

Any opening in the wall is theoretically a weak point. There is a reason why burglars prefer to enter via a window. Why? Because it's quick: it takes just ten seconds to prise open a poorly secured window with a screwdriver. Police statistics show that if a burglar can't get into the house within two to five minutes, he will give up. The risk of being discovered is too great. That is why 90 percent of all burglaries can be prevented by modern security apparatus such as roller mushroom head bolts.



The most common tools.

We often think of crowbars or similar when we think of burglaries, but in fact such tools are rarely used. Most burglars simply use screwdrivers, hammers or wedges.

Windows as a weak point? Not with us!

Statistics show that the most common way to break in is via windows or casement doors. Even the standard version of Finstral windows can offer a high degree of protection against burglary.



10 seconds.

This is how quickly burglars can prise open a window with normal locking bolts. All it takes is a screwdriver.

43%

The steep rise in the number of burglaries between 2006 and 2016.

"Investing in the mechanisms is the most important thing."

Between 2012 and 2016 the number of burglaries across Europe fell by 10 percent. These are the official police figures for crimes committed in the European Union. The internationally renowned Cologne Study also confirms this downward trend: in 2018 it reported the lowest level of house break-ins for twenty years. Senior police officer Ewa Litzenberger ascribes this development mainly to the improved security standards for windows and doors.

How do burglars usually get into a house?

Ewa Litzenberger: In multi-family houses it is normally the entry door that is attacked. In a single-family house, it is often the patio door as this is usually located at the back and is therefore not so visible. Burglars like to break in early in the evening, especially in the darker months of the year, when the lights come on at 5 p.m. and it is easy to see from the outside if someone is at home or not.

How can I protect myself against this?

Very simply: by securing your windows and doors. People often don't know just how secure or otherwise their house or apartment actually is. It is precisely the weak points – the windows and doors – that should then be checked. Specifically, the police recommend using at least RC 2. RC 2 stands for Resistance Class 2, which is an international standard defining various security classes of windows and doors and setting standards for burglary-resistant fittings, glazing and security locks. RC 2 means that a burglar will need at least three minutes to open a window or door.

That may not sound very long, but for most burglars it is, because every minute, every second even, increases the risk of being discovered.

So, as a precaution, RC 2 windows and doors should be installed everywhere?

The police recommend that the weak spots in a house should be protected to RC 2 standard or higher. These points are the easily accessible entry doors, patio doors, basement and ground-floor windows. And, in multi-family houses, all the doors to the apartment. As criminals will always take the route that appears easiest and least conspicuous, it is rare to see break-in attempts via higher-level windows or balconies. Unless they are easy to reach. For example, if a burglar can climb from a dustbin onto the garage roof and from there enter the apartment or house via a window, you should also install RC 2 apparatus there as a minimum.



 \uparrow It takes just ten seconds to prise open a poorly secured window with a screwdriver.

Most burglars prise open doors or windows. Glass is rarely broken – does that mean that safety glazing is not so important?

Yes and no. All in all, it is true that fittings and security locks play a wider role in burglary protection. But the latest Cologne Study also showed that many break-in attempts also caused damage to the window fittings and glass. In other words, the police do not recommend avoiding the use of safety glass for vulnerable windows or casement doors. Because, if the burglar cannot prise a window open, he may well try to break the glass.

Surely it would be better to rely on an alarm?

An alarm system is always good to have "on top" because it enhances the feeling of security. It can however never replace a solid security mechanism. Therefore always invest in the mechanisms first, in other words make sure that the fittings and locking parts are certified, i.e. that they are available in sufficient quantity, are of high quality and are secure. After that, you can start to think about an alarm system.



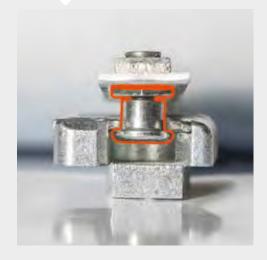
← Senior police officer Ewa Litzenberger assists with the Cologne Study on break-ins. Its results are used throughout Europe as a basis for decisionmaking as regards security in residences.

Burglary

Security fittings



The centre seal improves security by protecting the locking fitting from the outside. →



Roller mushroom head bolts? We fit them as standard.

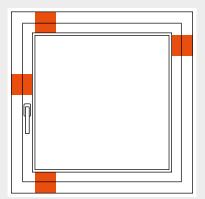
Unsecured windows with normal pin bolts can be opened in ten seconds. Security fittings, such as our hardened steel roller mushroom head bolts, can prevent this. How? Very simply: the mushroom head on the sash hooks tightly into the recess of the solid locking part on the frame and further secures the window. This makes it almost impossible to prise open. We at Finstral always fit four secure locking points with roller mushroom head bolts as standard. On request we can also supply RC 2-tested security fittings.

Advantages:

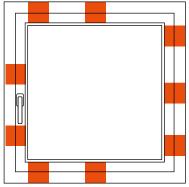
- our windows always come as standard with four secure locking points using solid roller mushroom head bolts of hardened steel
- easy window operation: the bolt's roller function

Do I need maximum security everywhere?

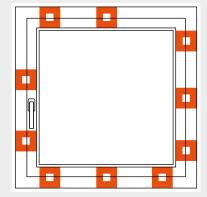
The Finstral standard, namely 4-point security locking, is the minimum requirement for your windows. For easily accessible windows and doors additional security options, such as a security lock around the perimeter, should be chosen.



4-point security fitting: standard with FIN-Window



Peripheral security fitting with a maximum distance between locks of 85 cm: standard on FIN-Project and FIN-Ligna



Peripheral security fittings plus secure corner hinges, stronger screw connections for locking parts: all requirements for RC 2

- our windows always come as standard with at least 4-point security locking
- security locks are always made of solid hardened steel, including corrosion protection
- stable bonded sash frames also make levering open more difficult
- Finstral windows always have a centre seal: window profiles with a centre seal increase security, as the locking fitting is more difficult to reach from the outside



Burglary

Lockable handles, protection against drilling

Safe as houses.

Lockable handles cannot be moved and block the entire locking mechanism. This means that the roller mushroom head bolt cannot be prised out of the relevant locking part. Invisible protection against drilling, made of hardened steel, prevents the handle from being drilled out from the exterior.



Lockable handle, a requirement for RC 2



Push-down window handle with and without visible push button



Drill protection in combination with lockable handle, a requirement for RC 2

Advantages:

- prevents tampering with the window locking mechanism
- our drill protection prevents the handle mechanism from being drilled out
- lockable handles and push-down handles are also useful as a child safety device

It splinters but will not break.

Our Multiprotect laminated safety glass consists of two glass panes that are bonded with a highly tear-resistant film. This makes it difficult to break through the glass, binds glass splinters together and helps prevent injury. The thicker the film, the greater the protection against burglary.

Helps prevent injury. The thicker the film, the ater the protection against burglary. Built-in Concea window are open upon the protection against burglary.

Advantages:

- available in three resistance classes with different film thicknesses: P2A (0.76 mm), P4A (1.52 mm) and P5A (2.28 mm). For ground floor applications we recommend P4A (requirement for RC 2) or P5A
- provides UV protection to prevent additional discoloration of the interior
- laminated glass windows also significantly enhance sound insulation

Burglary

Laminated safety glass

Burglary

Window sensor

Built-in assistance.

Concealed magnetic sensors monitor the status of the windows, informing the alarm system whether they are open, tilted or closed. Windows are thus never left open unintentionally. And burglars are kept out.

Also available with VdS classification.





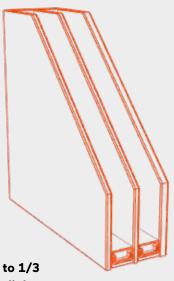
Who wouldn't want large windows that let in plenty of natural light and cosy warmth from the outside into the house? But not so much that it becomes excessive, which in turn requires effective heat and glare protection. Finstral lets you compose individual solutions that combine both requirements. Perfectly matched to your regional location, to the orientation, building efficiency and architecture – and of course to your own personal style. Choose from our narrow frame variants and ultratranslucent glazing for maximum daylight. And protect yourself with solar protection glass, internal Venetian blinds, roller shutters, classic shutters or blinds. Always included: the best possible protection against heat.



5-10 %External luminosity for living and lounge areas as recommended by leading lighting experts.

90%

of our time is spent in enclosed spaces. Experts recommend 30 minutes daily exercise in daylight – even when the skies are cloudy.



Up to 1/3 less light

is a consequence of much of today's triple insulation glazing in rooms. That is why Finstral only installs triple insulation glazing with the highest possible light transmittance of 80%. For more information:

Centre \rightarrow Insulation \rightarrow Heat/Cold.

Narrow frames mean more light

Even when window frames are just 2-3 centimetres slimmer, they clearly enlarge the glass surface and allow more light into the room.







 $^{^*}$ sample calculation for a 145 x 100 cm window with a total market-standard frame width of ~13 cm or ~10 cm as for FIN-Window Slim-line and ~7 cm as for FIN-Window Nova-line.



Solar protection glazing

Permanent heat protection in the glass itself.

In hotter regions you should at the very least opt for our lightweight Mediterran solar protection glass. For large glass surfaces or with high irradiation (south side), we recommend Sun-Block glass for strong solar protection. Double and triple glazing are available to keep the heat out and maintain comfortable inside temperatures.



Mediterran 2

- practically colour-neutral double insulation glass: light solar protection, good heat/cold insulation
- approx. 25 % less heat*
- approx. 10 % less light transmittance*
- g-value 0.48, LT value 0.74



Sun-Block 2

- double insulation glass, slightly reflective exterior: strong solar protection, good heat/cold insulation
- approx. 55 % less heat*
- approx. 25 % less light transmittance*
- g-value 0.28, LT value 0.60
- * compared to standard Plus-Valor glass



Mediterran 3

- practically colour-neutral triple insulation glass: light solar protection, very good heat/cold insulation
- approx. 30 % less heat*
- approx. 20 % less light transmittance*
- g-value 0.44, LT value 0.67



Sun-Block 3

- triple insulation glass, slightly reflective exterior: strong solar protection, very good heat/cold insulation
- approx. 60 % less heat*
- approx. 35 % less light transmittance*
- g-value 0.26, LT value 0.54



Lightweight solar protection glass is especially recommended for large south-facing windows.

The rooms heat up significantly more slowly, while the light loss over the entire glass surface is almost imperceptible.



"Daylight is a basic nutritional requirement."

What does a room need to make us feel comfortable? As much natural light as possible. Studies have shown that the brighter a room, the more positively we rate it. No wonder, says lighting planner Professor Peter Andres: we humans are after all creatures of the light. Here he explains why daylight cannot be replaced by anything else, as well as what to look for when choosing windows so that no light is lost in the course of new builds or refurbishments.

Is there such a thing as an optimum window area per room?

Prof. Peter Andres No, we light planners calculate this differently. In our latitudes we recommend five to ten percent of the external brightness for living or communal areas. This means that the room is bright and there is no problem with light in the dark months of the year. The location and construction affect how the architect and lighting planner will achieve this figure of five to ten percent. Sometimes bigger windows are needed because an adjacent house is so close. Matters look different in a wide open space. That is why there is no optimum window area per room. It has to be decided according to each individual case.

How critical is the distribution of windows in the room?

Extremely important. Just one example: a fanlight provides up to three times as much light as a side window of the same size. If, as with refurbishments, we want to make maximum use of the existing window surfaces, then the top edge of the window is also important. If I can move it up by just 10 cm, I will get disproportionately more light into the room. If that is not possible, we have to choose narrow frames and good-quality glass to minimise the light lost by refurbishment.

Why is it so important to get as much light as possible inside?

Light is a basic nutritional requirement. Without light we humans would not exist. We are creatures of the light. It starts in the morning: we need a degree of brightness just to wake up. Only when light strikes the eyes is a positive stress hormone released in the brain; this suppresses the sleep hormone melatonin and thus makes us active. In the past people would spend much more time outdoors, while today we have to spend most of our time indoors for work. We are not designed for that. All of our body's functions have in the course of evolution developed in conjunction with natural light. And now, in the last nanoseconds of evolution, we are attempting to create a similar effect using artificial light sources. That won't work. Nothing can replace daylight.

Can a lack of light be harmful to our health?

Yes, our whole body system gets confused if we get too little daylight. Sleep disorders, vitamin-D deficiency or depressive disorders are not uncommon. Unfortunately, lack of light does not cause us pain. And not everyone has a workplace right by the window. What is more, light quality often suffers from the poor quality of the window glass. In other words, the light it brings into the room is no longer as natural as it should be. So we try to compensate



↑ Sunlight creates a pleasant atmosphere. However, depending on the season, it can produce an excessively warm indoor climate. That is why it is important to think about heat and glare protection right from the start.

for this deficit with artificial light. But this blocks the body from synchronising itself with the time of day or the seasons. It is of course bright enough to work by, but there is a lack of natural light.

You mentioned light quality...

Yes, window glass does exist that reduces the quality of the light because it cuts off energy in the short-wave and long-wave spectrum in the area of transition between visible and invisible light. We now know that adequate light in the long-wave infrared range will prevent age-related macular degeneration. Short-wave blue light wakes us and keeps us active. Both are important for our well-being. In this respect, it is not just a matter of bringing sufficient light inside. The light should also cover the entire spectrum.

The nature of the glass will therefore affect both the quantity and the quality of the daylight entering the room?

Of course. Low-quality triple glazing will for example mean a light loss of up to 30 percent. You have to take care that you don't end up sitting in a room that is well insulated, but insufficiently bright. There are however now good products available in this area, such as triple glazing that can achieve the light transmittance values of double glazing. This optimises insulation while minimising light loss.



← In 1986 Prof. Peter Andres opened his lighting planning office in Hamburg, adding another location in Tyrol in 2000. He has been teaching at the Peter Behrens School of Arts (PBSA) in Düsseldorf since 2006.

Twin composite sash

FIN-Project
Nova-line Twin aluminium-aluminium

in twin-sash version with Nova dummy mullion. →

Sun and visual protection in the weather-protected gap between the panes.

Whether at certain times of day or in summer, if it is regularly very bright or warm, having highly flexible sun and light protection is ideal. Numerous Finstral windows and casement doors are available in Twin versions. In other words, they consist of two sashes connected to one another. The best part: between them is an aluminium Venetian blind or a fabric pleat blind – easy to operate and always well-protected against wind, rain or dirt. Twin sashes also improve thermal insulation and noise protection.





- solar protection, perfectly protected between two panes and therefore almost completely care- and maintenance-free
- two panes and a large gap to improve thermal insulation by 20%* and improve noise protection by 100%*
- no roller shutter box above the window for maximum light incidence with a straightforward, low-cost structural joint



Twin composite sash

Venetian blind

Elegant and easy to maintain.

Venetian blinds are delicate and offer variable sun and view protection that will not make you feel locked in: set at an angle, they even let you look out when closed. Finstral's Twin Venetian blinds have a slat width of 25 mm, are of high-quality aluminium and available in many colours. They are also extremely tough: the composite sash version is impervious to dirt or wear.



0717	9007	0617	0611	0610
Silver				
coloured	Dark Silver	Grey	Light Grey	White
0600	0035	0633	0522	0630
0609	0825	0632	0522	0620
0609	0825	0632	0522	0620
0609	0825	0632	0522	0620

Advantages:

- rarely needed, but if so, then it's simply a matter of cleaning and maintenance from the inside out
- convenient chain or motor operation

Just the stuff to protect against light and prying eyes.

The curtain that can be lowered step by step: Finstral makes all its pleated blinds from the finest fabrics. You an choose between four colours to ensure that your pleated blind will always match. The blind is always of light grey on the outside to ensure good energy reflection. The opaque honeycomb pleat is ideal for bedrooms.



Twin composite sash

Pleated blind

Colour Outside



Colours Interior







- rarely needed, but if so, then it's simply a matter of cleaning and maintenance from the inside out
- convenient chain or motor operation
- perfect for bedrooms: our honeycomb pleated blinds let no light in

Roller blinds

Light-proof solar protection with additional burglary protection.

Everyone knows them. And with good reason. Roller blinds are all-rounders: letting them down not only completely darkens the room and consistently keeps out the heat, as a single solar protection solution, roller blinds also significantly increase a house's security. Finstral's so-called roller-type security blinds (i.e. roller blinds) are always made of aluminium which is particularly durable and heat-resistant – and keeps burglars out. And, because each house and apartment is different, our blinds are available in three different installation variants.



You can choose from 28 colours for our roller blinds. The visible parts of the boxes and guide rails are always colour-matched to the window frame.



- roller blinds are always made of aluminium: heat-resistant, durable, burglar-resistant
- convenient belt or motor operation (also with Smart Home connection)
- improved burglary protection, improved heat insulation, improved noise protection
- available with or without light slits between slats for total darkness
- everything contained in one box: optionally available with additional insect screen roller blind



Roller blinds

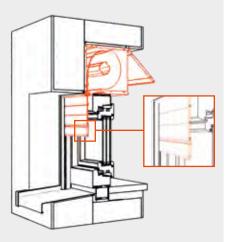
Installation variants

Classic mounting.

Roller shutter that rolls outwards, with service cover inside (see graphic) or optionally inside below: these are the main features of this mounting method with built-in box. It is insulated to prevent either heat or cold from being lost. The box can be quickly and easily opened via the internal inspection cover for cleaning or maintenance, which is particularly practical – especially on upper floors.

Advantages:

- perfect aesthetics: exterior has convex curved slats
- always perfect Finstral structural joint, always perfect
 Finstral mounting



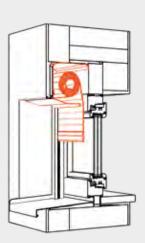
↑ Convex roller blind with service cover inside.

Modern mounting.

Roller shutter that rolls inwards, with a virtually invisible service cover outside: this is the special feature of this mounting method. The roller shutter box is mounted on the exterior in front of the window and thus has no need for its own insulation: it can be hidden under the plaster if desired. The box cannot be seen in the living area and thus meets modern aesthetic demands.

Advantages:

- inspection cover is outside and thus almost invisible
- perfect aesthetics inside
- always perfect Finstral structural joint, always perfect
 Finstral mounting

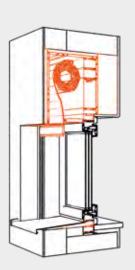


↑ Service cover outside but with concave roller blind.

Innovative mounting.

Roller shutter that rolls outwards, with a virtually invisible service cover outside: the innovative assembly with FIN-Fix Bloc combines the advantages of both the above mounting methods. And the roller shutter box is here mounted on the mounting frame; just like with the windows, the roller blinds and guide rails are only installed after the building work is finished, thus avoiding damage and dirt.

- no construction site risks
- perfect aesthetics both inside and outside
- always perfect Finstral structural joint, always perfect
 Finstral mounting
- can optionally be combined with insect screen
- is optionally available with integrated motorised
 ActiveVent ventilator unit



↑ Ideal combination: service cover outside and convex roller blind.

Venetian blind

Effective solar protection. With good visibility.

Venetian blinds appear elegant rather than solid. When retracted they disappear into a compact box located behind a panel or the plaster; if they are lowered outside the window, they offer particularly flexible protection against light, heat and prying eyes – the slats can also be set at an angle, i.e. they can also appear closed. And, because each house is different, we offer our Venetian blinds with two different slat depths.





Venetian blinds are available with two slat depths: 92 mm and 80 mm.

You can choose from four colours for our Venetian blinds. The visible parts of the box and guide rail are colour-matched to the window frame.



Advantages:

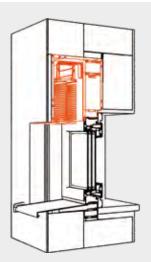
- Venetian blind slats are always made of aluminium, which is stable, heat-resistant and durable
- slat width 92 mm: ideal for covering even very large surfaces with Venetian blinds
- convenient motor operation (also with Smart Home connection)
- guide rails mean no rattling in the wind
- everything contained in one box: optionally available with additional insect screen roller blind



Elegant and flexible.

Venetian blind slats can be angled, protecting the inside while offering views outside.





Innovative installation with mounting frame.

The fully pre-assembled mounting frame is first installed – including the box, which elegantly disappears behind the plaster. Together with the window, the slats and the visible guide rails are only added after the building work is finished, thus avoiding damage or dirt.

Advantages:

- Venetian blind box, slats, windows: everything from a single source
- guide rails too are elegantly set behind the plaster
- can optionally be combined with insect screen
- is optionally available with integrated motorised ActiveVent ventilator unit
- always perfect Finstral structural joint, always perfect Finstral mounting

Venetian blind

Installation variants



Always made of aluminium.

The slats of our Venetian blinds are always made of aluminium, ensuring they are consistently stable, durable and heat-resistant.

Fabric shading

Modern solar and visual protection - made from fabric.

Do you want an aesthetically attractive façade that will simultaneously protect against sun, heat and prying eyes but will not leave the room in complete darkness? Then exterior shading of semi-transparent fabric is the ideal solution. Two qualities are available for the fabric: either particularly weather-resistant and UV-resistant polyester, or air-permeable glass fibre with good outwards visibility. Both fabrics are extremely durable and light-resistant. They are guided laterally on rails to stop them from fluttering in the wind. Optionally available with Smart Home compatible motor drive.

PVC-coated polyester fabric















Glass fibre







Advantages:

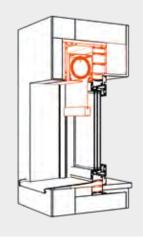
- excellent heat protection
- two weather- and light-resistant fabric designs in several colours
- convenient motor operation (also with Smart Home connection)
- mounting frame used during building work avoids damage or dirt affecting the shading device

Fabric shading

Installation variants

Innovative mounting.

Our shading devices are always installed with the innovative FIN-Fix Bloc mounting frame: the pre-assembled mounting frame, including the box, is installed and plastered first during the wet construction phase. The window and the shading device will only be added during the dry construction phase, thus avoiding damage or dirt.







← The external shading effectively protects against too much sun.



Folding shutters

The classic for sun and visibility protection.

How much light, heat or curious glances do you want to allow into your rooms? The fixed or movable slats and hinged sash of folding shutters allow optimum control of light and shadow as well as inwards visibility. Finstral produces all its folding shutters itself. They are always made of PVC, because it is weather-resistant while insulating against noise, heat and cold. Embossed wood-like surfaces preserve the look of traditional wooden shutters. Painted surfaces are also optionally available.

Advantages:

- weather-resistant wood decor foil is optionally available
- easy to care for no painting necessary
- movable slats and sashes protect against heat and prying eyes
- burglar-resistant can be locked from the inside
- can be operated manually



← To match the style: folding shutters in classic green.

↓ Always fully tested quality: Finstral produces its folding shutters itself.





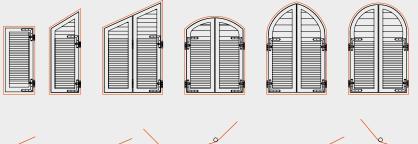
Always of weather-resistant, well-insulating PVC: folding shutters. →

Folding shutters

Shapes and opening types

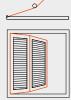
Round or pointed arch, single or quadruple sash.

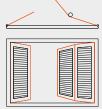
Angular, segmented, round or pointed arches – Finstral offers numerous special folding shutter shapes. They are always available in single and twin-sash form. There is also a variety of opening types for classic folding shutters, from single to quadruple sash versions. A maximum of two sashes can be joined to form one folding element. The resulting folding sashes allow the shutters to be opened to one side, thus creating large window openings.

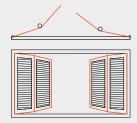










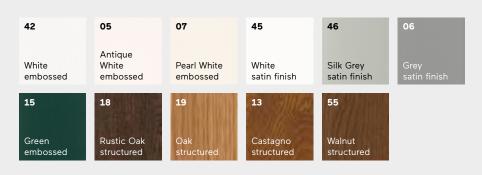


Advantages:

- always suited to your individual façade: folding shutter shapes
- classic folding shutters with numerous opening types

Opening up a wide range of colours.

A traditional wood look with embossed surfaces? Classic painted or satin finish? Folding shutters are available with various surfaces in eleven PVC colours, including green embossed. There are 34 colours to choose from for painted surfaces – and even more on request.



Advantages:

- always suited to the appearance: Finstral produces all its folding shutters itself
- embossed surfaces are dirt-resistant and extremely weather-resistant

Folding shutters

Colour/Surface



Varied and individual.

Aesthetics and privacy – Finstral manufactures folding shutters exactly to your needs. In addition to fixed or movable slats, therefore, we offer various panellings – in four different designs.

Folding shutters

Panelling materials



Advantages:

- specific accents possible for façade design
- panelling materials available in four different designs: flat, milled, horizontal or vertical board panelling

Folding shutters

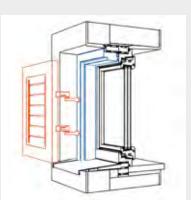
Mounting that always matches your façade.

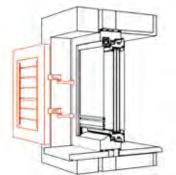
Classic folding shutters can be mounted in different ways: we offer four different mounting variants according to your wishes, the regional tradition and the individual façade.

Installation

Folding shutters

Slats







____F

Reveal or support frame

Folding shutter

Advantage:

 four different mounting methods are possible: mounting on support frame; mounting with a specific reveal frame; mounting directly on a block external frame; or mounting directly onto the masonry

How much light and air do you want?

Fixed or movable – you can individually control the light and air entering according to which slats you choose.



Board shutters

Efficient solar protection for traditional architecture.

We offer our characteristic shutters for a more rustic architectural style, because at Finstral we respect regional building traditions. Whether embossed or satin finish, we produce all board shutters ourselves. They are always made of PVC, because it is weather-resistant while insulating against noise, heat and cold. Embossed wood-like surfaces preserve the look of traditional board shutters and the enduring charm of conviviality.

Available colours and surfaces:

45	42	05
White satin finish	White embossed	Antique White embossed
07	46	06
Pearl White embossed	Silk Grey satin finish	Grey satin finish
50	11	18
50 Ruby Red embossed	11 Fir Green	18 Rustic Oak structured
Ruby Red		Rustic Oak

Advantages:

- available in three versions: as regular board shutters or as Padovana- or Vicentina-style board shutters
- versatile with a wide choice of colours, surfaces and shapes
- scratch-resistant and easy to maintain

↓ Typical of the Mediterranean building method, Padovana-style board shutters fold open around the masonry reveal.





↑ Effective sun and privacy protection: our traditional-look board shutters.





← They simply vanish into the window reveal when open:
Vicentina-style board shutters.

Sun/Heat

Interior shutters

The Mediterranean minimalist.

Typical of the south of Italy, these shutters offer solar and privacy protection that is easy to operate from the inside. The interior shutter is of course always harmoniously matched to your window colour. Thus producing a harmonious overall appearance. Where the sun is very strong, we recommend that you combine the interior shutter with external solar protection.

- always made of weather-resistant PVC
- satin finish, embossed or traditional wood look
- versatile with a wide choice of colours and shapes
- easy to care for no painting necessary



Sliding/folding shutters

Solar and privacy protection with a modern tone.

ForRes is the innovative material used by Finstral in the production of sliding and folding shutters with a slatted appearance. It is a sustainable mixture of PVC and rice husks that offers extreme durability and a natural appearance. Sliding shutters made of ForRes provide outstanding protection against sun, heat and prying eyes. And ensure almost complete darkness.



Advantages:

- greatly improved noise, cold and heat insulation
- always with high-quality, corrosion-proof fittings
- weather-resistant unlike wood, no painting is necessary
- can be recycled at our in-house recycling facility

Sliding/ folding shutters

Opening types

Natural look.

Our folding and sliding shutters made of ForRes are robust, sustainable – and good-looking.

Always functional. And aesthetically pleasing.

Our ForRes elements can be used in many different ways. They are suitable for sliding or folding. Folding and sliding doors are ideal as shading both for windows as well as for casement and sliding doors. Not to mention as privacy and wind protection for terraces, canopies and pergolas. Fixed elements can be used as balcony partitions or for permanent privacy protection.



- sliding sashes are possible in single or twin versions, manually or motor-operated
- folding elements can be adjusted, from a 2-piece folding shutter to an 8-piece folding shutter with dummy mullion



Sliding/ folding shutters

Colours

Always a natural look.

Not only pleasant to the touch, but also aesthetically pleasing: sliding and folding shutters made of ForRes are available in six colours. Aluminium frame and guide rail covers can be supplied in all available aluminium colours. This produces a harmonious overall appearance.













Advantages:

- harmonious colours and modern look of slat profiles
- always colour-resistant
- aluminium frames and rail covers are colour-matched to windows and façade

Always the right design.

Our folding and sliding shutters can be configured in a variety of different ways. Depending on your light and ventilation requirements, we can insert the slats without gaps (0 mm) or at a distance of 10 mm or 16 mm into the sturdy, slender aluminium frames.



Sliding/ folding shutters

Slats

- versatile design options thanks to three possible gap distances
- optional combination of ForRes slats and glass panels, or complete glass panelling
- transparent and translucent safety glazing is used



Privacy

Light, privacy – and aesthetics? Yes, it can be done. With our patterned glass, for example, available in 12 designs. It is attractive, lets plenty of light into the house – while also protecting against prying eyes. Just like an internal Venetian blind, which both offers reliable privacy protection and regulates incoming light. From bright as day to pitch dark. According to just how much light (and attention) you want to let in from the outside.

← Functional and aesthetic: patterned glass for privacy protection.

Privacy

Patterned glass

Always aesthetic. Always translucent.

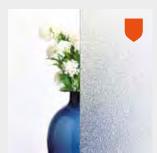
Privacy protection with low light loss? Our patterned glass, with its varying levels of transparency, can offer both. And, with 12 design options, Finstral offers a wide range of elegant glass surfaces – including break-resistant versions made of safety glass. Or you can let us sand an individual pattern for you to match your ideas or concepts. You decide which design is best for your window.



01 Mastercarré



18 Cathedral White



19 Orn. C - Orn. 504



27 Basic White



28 Pavé White



31 Chincilla White



33 Baroque White



Always glare and privacy protection. Always of high-quality aluminium.

Internal Venetian blinds of aluminium are attached to the inside of the window and offer optimum glare and privacy protection. Yet they allow you to look out at the same time. The light can be regulated with adjustable slats. They are simple to operate using a PVC chain.

Privacy

Internal
Venetian blind



Advantages:

- only high-quality aluminium Venetian blinds
- available in ten aluminium colours
- always harmonious in appearance: cover for mechanical elements and colour of plastic frame
- adjustable slats

Advantages:

- functional and aesthetic: patterned glass is decorative and offers privacy protection
- wide selection of 12 designs
- six designs are also available with Bodysafe and Multiprotect safety glazing
- on request Finstral can produce your very own personal pattern



35 Delta White



48 Frosted glass White, 4 and 6 mm **49** Frosted glass White, Multiprotect P2A



S01 individually designed, sandblasted glass



86 Kyoto



88 Miami



Multiprotect: robust multi-protection

Three of the patterned glass versions can be fitted with robust Multiprotect multi-protection glass. With highly tear-resistant film for reduced risk of injury and greater protection against burglary.



Bodysafe: injury-reducing glass breakage

Four of the pattern glass versions can be fitted with Bodysafe safety glass for maximum impact resistance. For even more injury protection in the event of glass breakage.



Insects

Light on, window open! And there they are, those unwelcome guests. It is not just country dwellers who have to cope with flies, mosquitoes and other insects. Finstral provides a functional yet visually discreet remedy with its always harmonious insect protection. The choice is yours. In this way your living room will stay insect-free even when the windows and casement doors are open.

← Everything from a single source: Finstral makes its insect screens itself.

Insects

Insect screen frame

Fixed or as a revolving door. And always flexible.

It couldn't be simpler: the fixed insect protection frame can be flexibly inserted into and taken out of the window. The insect screen is also available as a revolving door for balcony and patio doors. Finstral produces all of its insect screens itself. Thus we can guarantee that their shape and colour will always match the window frame.







Insect screen frame as a pivoting door

- available as a fixed frame for windows or as a revolving door for balconies and terraces
- also available in angled shape for windows
- quality-tested manufactured in one of our Finstral plants
- insect screens can be adapted to the frame colour of PVC windows; available in all aluminium colours



Vertical or horizontal. And always comfortable.

Roller blinds for windows, roller blinds or pleated blinds for casement doors. Our insect protection is always versatile, high-quality and easy to use. A roller blind is available for windows, running vertically with a practical recoil mechanism. For casement and sliding doors we also offer a more economical, horizontally running pleated blind. The fabric collapses and, unlike a roller blind, does not need a box.

Insects

Insect screen roller/pleated blind



Vertical insect screen roller blind in front of the window



Vertical insect screen roller blind integrated into block external frame



Horizontal insect screen roller blind for casement and sliding doors



Horizontal insect screen pleated blind for casement and sliding doors

- guide rail covers available in all aluminium colours
- laterally sliding insect protection for casement and sliding doors, also available in roller and pleated blind versions
- can also be combined with roller shutters and Venetian blinds
- quality-tested manufactured in one of our Finstral plants
- always form-fitting

Centre Always the right insulation, always the right structural joint.

Centre - the core.

Everything in this dimension revolves around the core of the window: the centre, which connects the interior and the exterior. The core issue: always to ensure just the right insulation and always perfectly fitting structural joints. Finstral consistently optimises these central construction matters, relying on strict quality testing by the Institut für Fenstertechnik (ift), Rosenheim. And the constant development of new window-core technologies that represent innovative trends in the industry.





Always the right insulation.

Heat/Cold Noise Sealing Always the right structural joint.

Mounting method Sealing

Your perfect window: how is it constructed?

Harsh winters, hot summers, busy roads or optimum energy efficiency: insulation is an important issue for new builds, refurbishments and old buildings – and is crucial for your quality of living. Finstral will ensure you get the right insulation. For optimal cold/heat, less noise and maximum sealing. And we guarantee you will get always perfectly fitting structural joints, with efficient installation and secure sealing.

Always the right **insulation**.

Heat/Cold Noise Sealing



Heat/Cold

We are constantly developing our windows. But we have remained true to one principle for 50 years now: always PVC at the core! There are good reasons for this. Since PVC, unlike aluminium, hardly conducts heat or cold and, unlike wood, permits large, insulating air gaps to be created in the profile, Finstral windows always achieve outstanding insulation values. In addition, PVC is absolutely air- and waterproof, thus keeping cold, rain and wind out. PVC is corrosion-resistant, UV-stable and therefore particularly resistant and durable. And PVC is sustainable as it saves resources: Finstral window profiles are 100 percent recyclable. As stated above, we have good reasons to stick to our principles.



Whether the window is of aluminium-PVC or has wood on the inside, Finstral will always insert a PVC profile in its core to ensure optimum insulation.





"PVC is the ideal material for windows."

Windows have many functions. They provide us with light and fresh air. They keep out heat and cold, while preventing wind, rain and noise from getting in. All of this is purely mechanical, maintenance-free and will last for decades. We may not notice them, but windows are highly complex construction elements. Product developer Helmuth Seebacher knows why Finstral windows meet every technical requirement and are therefore among the best when it comes to insulation.

How has a window have to be designed to ensure the best possible insulation?

Helmuth Seebacher: Three factors determine the insulation value of a window – frame, glass and installation. At Finstral we always use PVC for the frame on principle. Unlike aluminium, for example, it is not conductive, nor will it weather.

And it ensures a tight seal for windows because the corners of the frame can be welded. PVC is simply the ideal material for windows.

And what role does the glass play?

Insulation glass usually consists of two or three panes, a spacer and a filling of argon gas in the gap between the panes. The difference in quality depends upon the quality of the ingredients: truly modern glass coatings will not only insulate, they also permit significantly more daylight to enter. And truly good spacers must be heat-insulating and corner-welded. At Finstral, we always manufacture our insulation glass ourselves and in principle only use the best materials available on the market.

There is still the matter of installation...

That too is immensely important. Around one third of the insulation performance of a window depends upon its correct installation. That is why we place so much emphasis on trained installers and, together with the Institut für Fenstertechnik (ift)

in Rosenheim, we have launched the most rigorous qualification programme in Europe.

How can Finstral windows offer such good insulation values?

Because we do everything ourselves, from development through to production and assembly, we can offer a higher quality standard. What makes our windows special, then, is the triply unique quality of frame, glass and installation.

How can you increase the thermal insulation?

Thermal insulation can be increased by thicker frame profiles and triple glazing. This is recommended wherever the exterior and interior temperatures differ greatly. In cold regions, where it should be warm indoors, or in very hot areas with air-conditioned interiors. Cooling a room by just one degree consumes three times as much energy as heating it one more degree. And this energy is not dissipated through the window.

When is special heat protection glazing useful?

The need for double or triple glazing depends upon which climate region you live in and whether the room is air-conditioned. In the case of air-conditioning, I always recommend the maximum insulation that triple glazing will provide. In addition, in Mediterranean regions the air-conditioning period



 \uparrow 20 percent of heating energy is lost through poorly insulated windows. Well-insulated windows will thus significantly reduce heating costs.

is longer than the heating period. In this context, it is also important that our triple insulation glazing is just as transparent as a double glazing.

How can I calculate if and when my new windows will pay for themselves?

New windows always pay for themselves. They are the easiest element to replace in a building and bring with them a whole host of advantages. Let's start with insulation: it is measured with the heat transfer coefficient, namely the U-value. If this is improved by 1.0, this will save about 100 kWh of heating (equivalent to approx. 10 m³ of natural gas) per square metre of window area per year. This is a rough guideline - our advisers will be happy to provide an exact calculation. And they can also demonstrate that new windows provide better protection against burglary, bring more light into the house, are easy to maintain and almost maintenance-free. And they reduce noise. The first thing our customers notice after replacing their windows is that it is quieter.

What is the point of sound insulation?

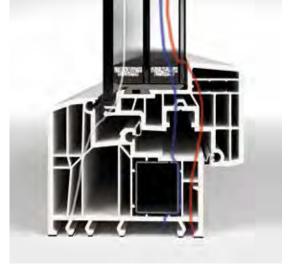
Constant noise makes us ill, so sound insulation

should not be underestimated. From a technical point of view, there are two things involved: on the one hand, all joints must be absolutely tight. We do this particularly well at Finstral because we permanently co-extrude our gaskets onto the frame profiles in stable form. We bond the glass to the frame rather than using setting blocks. And the numerous locking points between the sash and the window frame ensure a high contact pressure. On the other, an asymmetrical structure and large gaps between the panes will reduce noise levels. Taking all this into account, a Finstral window can absorb up to 47 dB of sound.



← Helmuth Seebacher has been working on Finstral window systems for 35 years. As head of product development, he has already launched several innovations.





Our window that offers the best values FIN-Window PVC-PVC Nova-line Plus 90 achieves a thermal insulation values: of U_w 0.71 W/m²K. →

Our frames always contain insulation PVC in the core.

Thermal images of old or poorly insulated windows clearly show that heat is lost not only via the glass surface but also through the window frame. It is therefore important to take account of the heat transfer coefficient (U_w value) for the entire window, i.e. for glass and frame. The frequently cited U_g value only takes account the of insulation values for the glazing. Finstral windows always have excellent U_w values. No wonder, as we develop and produce our heat-insulation profiles ourselves – from high-quality PVC, the perfect Insulation material. Our profiles are always corner-welded and the gaskets tightly co-extruded onto the profile.

Three systems. Numerous material combinations. Always perfect insulation values.

FIN-Project, FIN-Ligna, FIN-Window – Finstral offers three window systems, all available in different material combinations. The insulation values vary according to the material, frame shape and glazing. And are each the best in their class.



FIN-Project aluminium-aluminium



FIN-Project aluminium-wood



FIN-Project aluminium-ForRes

FIN-Project window system.

Our FIN-Project window system is available in aluminium on the exterior and in aluminium, wood or ForRes on the interior. The core contains a multi-chamber PVC profile that ensures excellent thermal insulation values.

- thermal insulation value with double glazing: depending on frame shape from U_w 1.1 to 1.3 W/m²K
- thermal insulation value with triple glazing: depending on frame shape from $\rm U_w$ 0.77 to 1.1 W/m²K
- available in two depths: 78 or 88/95 mm

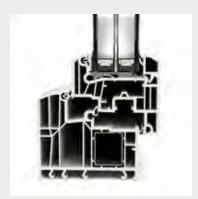




FIN-Ligna PVC-wood



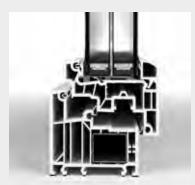
FIN-Ligna aluminium-wood



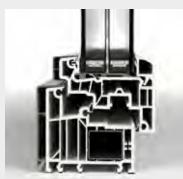
FIN-Window 90 PVC-PVC



FIN-Window 90+8 aluminium-PVC



FIN-Window 77 PVC-PVC



FIN-Window 77+8 aluminium-PVC

FIN-Ligna window system.

Our FIN-Ligna window system is always available with wood on the interior and either aluminium or PVC on the exterior. The core contains a PVC profile that always ensures excellent thermal insulation values.

Advantages:

- thermal insulation value with double glazing: depending on frame shape from $\rm U_w$ 1.1 to 1.3 $\rm W/m^2K$
- thermal insulation value with triple glazing: depending on frame shape from $U_{\rm w}$ 0.80 to 1.0 W/m²K
- available in two depths: 84 or 92 mm

FIN-Window 90 window system.

Our FIN-Window 90 window system is available in PVC or aluminium on the exterior and always in PVC on the interior. The core contains seven air chambers that provide our best thermal insulation values.

Advantages:

- thermal insulation value with double glazing: depending on frame shape from $\rm U_w$ 0.99 to 1.2 $\rm W/m^2K$
- thermal insulation value with triple glazing: depending on frame shape from $\rm U_w~0.71~to~1.0~W/m^2K$
- available in two depths: 90 or 90+8 mm

FIN-Window 77 window system.

Our FIN-Window 77 window system is available in PVC or aluminium on the exterior and always in PVC on the interior. The core contains a large PVC profile with a depth of 77 mm that ensures good thermal insulation values.

- thermal insulation value with double glazing: depending on frame shape from $\rm U_w~1.0~to~1.2~W/m^2K$
- thermal insulation value with triple glazing: depending on frame shape from $U_{\rm w}$ 0.73 to 1.1 $\rm W/m^2 K$
- available in two depths: 77 or 77+8 mm

Heat/Cold

Insulation glass production

Always perfect glass - from the most modern plants in Europe.

Finstral is one of the few manufacturers to operate its own insulation glass production facilities at the Scurelle and Oppeano sites in Italy and in the German town of Gochsheim. This is where the individual cutting of the huge standard glass panes takes place. We then seam the glass edges and assemble up to three panes for the finished insulation glass. We strive for perfection: our fully automated production lines minimise manufacturing errors. All finished insulation glazing is also checked for faults with a laser scanner. Our spacers are also the best on the market – always of high quality and heat-insulated, mitre-cut and corner-welded.



Always seamed edges.

Glass edges always receive a special treatment at Finstral: they are seamed using a diamond grinder. This reduces the risk of glass breakage during long window life.



Always high-quality spacers.

Heat-insulated spacers can save around 8% of the heating energy of a house each year.* Finstral uses only high-quality PVC spacers: the corners are not bent but rather mitre-cut and perfectly welded on.



Always quality controlled.

A laser scanner checks each individual piece of insulation glass for air bubbles, inclusions, scratches or contamination – always more accurately than required by quality standards.



^{*} according to a study by the Passive House Institute in Darmstadt, June 2017



Heat/Cold

Double/triple insulation glazing

Always warm when it's cold outside.

Light comes in, cold stays out. This is the purpose of insulation glazing – and Finstral insulation glass always does the job perfectly. Our Plus-Valor 2 double insulation glass and Max-Valor 3 triple insulation glass achieve the best values for insulation, energy and light transmittance in their respective categories. Finstral always offers you the best insulation glass on the market.



Just as much light as double glazing: Max-Valor 3 triple insulation glazing

Advantages:

- our best insulation glass: thermal insulation value is almost twice as high as with Plus-Valor but with remarkably low loss of brightness compared to double insulation glazing
- best achievable values for thermal insulation
 U_g 0.6 W/m²K, for total energy transmittance
 g 0.60 and for light transmittance LT 0.77
- gaps between glass panes are always filled with heat-insulating argon gas
- almost as colour-neutral as white glass
- always high-quality, heat-insulated and cornerwelded glass spacers in elegant black
- reflectance of just 15% and therefore more birdproof



For us, the best is standard: Plus-Valor 2 double insulation glazing

- standard for Finstral: the highest quality components, the most modern processing and excellent thermal insulation values
- best achievable values for thermal insulation $\rm U_g$ 1.1 W/m²K, for total energy transmittance g 0.65 and for light transmittance LT 0.82
- gap between glass panes always filled with heat-insulating argon gas
- always high-quality, heat-insulated and corner-welded glass spacers
- spacers are also available in white or light brown instead of black

Noise

We shut the windows – and it's quiet! That's what we would like. That's why Finstral's standard windows are extremely well soundproofed. Because the more formfitting the frame, the better the insulation values: so we always bond the frame and the glass instead of using setting blocks as others do. We also firmly bond the gaskets with the profile, and position the locking points as close as possible to each other. And, for particularly sensitive situations, we offer special noise protection glazing that keeps out up to twice as much noise. For super-quiet living even in the loudest of places.

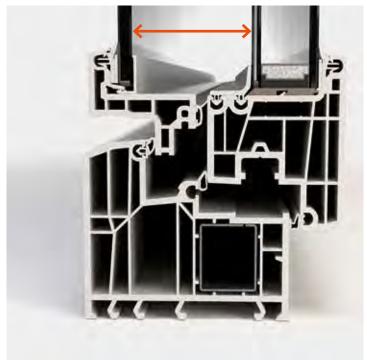
Asymmetrically arranged glazing.

Finstral's sound insulation glazing is produced asymmetrically, i.e. the inner and outer panes are of different thicknesses. The large gap between the panes and the triple glazing structure further reduce the noise level.



Co-extruded gaskets.

To ensure the best noise insulation, the gaskets of our windows are not clipped on but instead always firmly bonded to the profile.



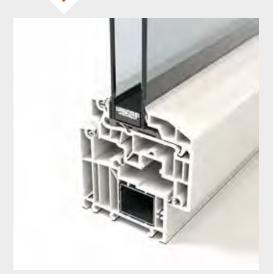
Twin composite sash.

The large, sound-insulating gap between the panes makes composite sashes the ideal solution for maximum noise protection.



Noise

Sound insulation



Our standard is quiet.

No matter which Finstral window you choose, noise protection is always built in. Because consistently sealed windows not only keep the heat in, they also keep noise (and cold) out.

Advantages:

- standard sound insulation: 32 to 40 dB
- always bonded with Finstral: frame and glass
- are always co-extruded, i.e. rebate gaskets are tightly bonded to the profile
- always airtight corner-welded frames
- always peripheral locking points at short intervals



Even quieter if desired.

For improved sound insulation, the glass can be combined with a noise-absorbing Multiprotect pane. Multiprotect is also burglar-resistant and provides UV protection. Or you can choose a Twin laminated sash with standard glass that reduces the noise level thanks to the large gap between the panes.

Advantages:

- improved sound insulation: 36 to 46 dB
- sound insulation glazing is always produced asymmetrically,
 i.e. with different interior and exterior glass thicknesses
- additional noise insulation is provided by the large gap between panes and triple glazing



Super-quiet if necessary.

So as to be able to sleep peacefully while living on even the loudest road, we recommend that you choose the outer and inner panes of Multiprotect glass – including for the Twin composite sash. This can absorb up to 47 decibels of sound.

- best sound insulation: 42 to 47 dB
- sound insulation glazing is always produced asymmetrically, i.e. with different interior and exterior glass thicknesses
- additional noise insulation is provided by the large gap between panes and triple glazing
- best sound insulation values with composite sash version

"The window plays a key role in sound insulation."

Too much noise can make you ill. Absolute silence triggers a feeling of discomfort. The optimum quality for a living area thus lies somewhere in between. It is obvious that windows are important for noise protection. Many owners are not aware that it is not just high-quality sound insulation glass that is the answer. Engineer Ruben Erlacher argues that, when selecting the right windows, the frame design and the installation must always be kept in mind.

Is your aim to permit as little sound as possible to enter the room?

Ruben Erlacher: In principle, yes. The sound insulation, i.e. the acoustic quality of a building, is after all one of the most important aspects for house-building or refurbishments. But the façade should not be excessively insulated against outside noise because, the quieter the room, the more you notice low-level noise sources. We need a certain form of acoustic link to the outside world, but it should lie below the standard values.

Because too much noise can make you ill...

Exactly. A constant noise level, for example, can cause high blood pressure. We are exposed to round-the-clock noise in cities in particular. This makes our need for rest all the greater, meaning we can relax within our own four walls. And that is why sound insulation between residences and towards the outside is so important.

Noise is perceived very subjectively...

You can even say: the worst noise is the one that you don't want to hear. Whatever that might be: a

mosquito at night, or the sound of the main road. And it is precisely because noise is perceived so subjectively that it is important to have the sound level measured by experts. This permits the acoustic disturbance to be evaluated objectively. Is the noise within the permitted level or above it?

What types of sound are there?

The two most important types are airborne sound and structure-borne sound. Airborne sound is noise transmitted through the air, such as music or street noise. Structure-borne sound is transmitted via parts of a building. Examples are the sound of footsteps on a ceiling, or furniture being moved. Another subtype of structure-borne sound is installation noise, e.g. toilets flushing, garage doors, roller blinds, air-conditioning or radiators.

How does airborne sound get inside?

Noise can penetrate anywhere there are weak spots. Most of the time these are the windows, a complex component with many tasks to perform – and often aged and accordingly leaky. In addition, window areas are getting increasingly bigger. This



 \uparrow Our standard windows are designed to be form-fitting and are always professionally installed to ensure the best sound insulation level of 32 to 47 dB.

is basically a good thing, as more light comes into the room. However, this makes the window more important when it comes to sound insulation. The window is clearly the most important component of the façade. Which also includes sound insulation.

As a householder, what choices can I make for my windows in order to make my home as quiet as possible?

A window's quality is result of the interplay of the glass, frame and installation situation. Most people only pay attention to the sound insulation offered by the glazing. This is fatal, however, because the frame design and how well the window is installed have a great effect on the sound insulation. So you should always pay attention to the glass, frame and installation situation – and don't forget the roller box. It must also be airtight and properly constructed, otherwise the noise will find its way through this weak point and indoors.

When is it useful to measure sound insulation?

The acoustic quality of a building is one of the most important points when building a house. In this respect, I always recommend sound planning, for new builds and especially for refurbishments. This allows real improvements to be made – not just a random figure, but one with a technical basis. The desired sound level is calculated room by room. The windows are then selected accordingly.



← At his architectural and engineering office in South Tyrol, Ruben Erlacher works on the sound insulation of buildings.



Sealing

Wind, rain, noise, burglars: a good window has to keep many things out. To do this, it must first and foremost be well-sealed. Standard for Finstral: a range of features that ensure our windows always offer reliable sealing and will remain well-sealed for a long time.

Sealing

Corner welding



Always with welded corners.

Finstral also offers what is standard for PVC windows for all other frame materials: airtight and waterproof welded corners and a PVC frame at the core. No other aluminium or wood-aluminium window offers this.

- only from Finstral: tightly welded corners for all window types
- always produced by ourselves



Sealing

Centre seal

Always with centre sealing.

Sealing is standard for Finstral, thanks to a gasket on the centre seal leg that is always co-extruded and protected from sunlight and weather. This protects the window fittings from moisture and dirt, provides better rainwater drainage – and is also easy to clean. Together with the sash stop and sash glass gaskets, made of thermoplastic material and also co-extruded, the centre seal always ensures properly sealed windows.



- every Finstral window has a protective centre seal
- ageing- and weather-resistant, with long elasticity retention as it is protected from sunlight
- high degree of airtightness and resistance to driving rain
- protects fittings from moisture and dust
- centre seal leg is even more burglar-resistant: locking fitting is harder to reach from the outside

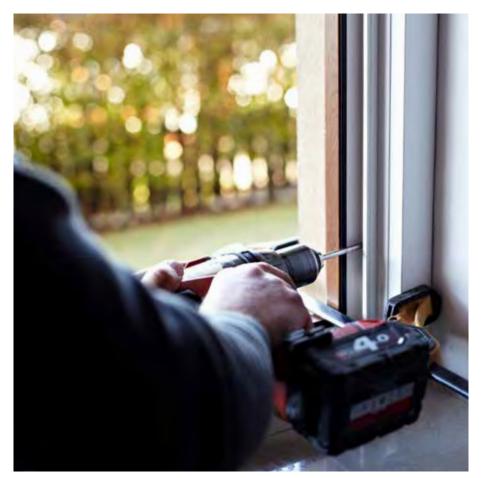
Your perfect window: always perfectly installed.

What use is the best window if is not properly installed? In order to ensure humidity, noise and cold are all kept outside, Finstral structural joints must pass strict quality controls that have been tested and certified by the Institut für Fenstertechnik (ift) in Rosenheim. In this way we can guarantee installation that is always efficient and sealing that is always secure.

Always
the right
structural joint.

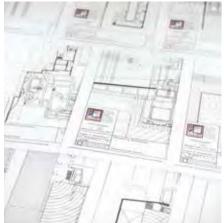
Mounting method Sealing





Mounting method

Fast, clean, no noise – and above all, no defects. That is how the perfect installation should be. In order to protect your new windows from dirt, damage, building moisture or breakage during the construction phase, we have optimised our structural joints – and we recommend installation using a mounting frame for new builds or conversions, or with slide-on or slide-in installation for refurbishments.



Finstral provides a detailed drawing for each type of installation, with precise specifications for the mounting process and materials used.



Of course, we can also install your Finstral window on request in the conventional way, directly into the masonry. **Mounting method**

FIN-Fix mounting frame

Always heat-insulated. Always the best mounting method for new builds and conversions.

What is a mounting frame, and how does it work? The Finstral mounting frame is a heat-insulating frame made of recycled PVC that is plastered into the masonry during the wet construction phase in the bodyshell. Only upon completion of the rough construction work will we then install the actual window element during the dry construction phase. Why? Because this protects it from damage during the construction phase. There is no delay in the building process: the FIN-Fix mounting frame is delivered and installed for a short period of time.







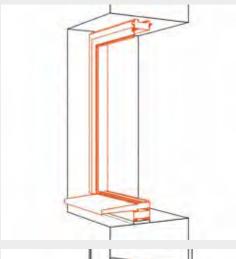
Recommendation

↑ The independent Institut für
Fenstertechnik in Rosenheim, with
Europe's leading installation experts,
recommends mounting frames as the
best method of installing windows.



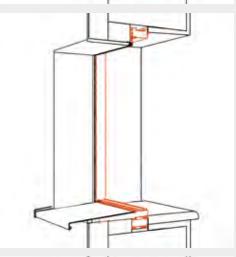
This is how installation with a mounting frame works.

Just three steps to a perfectly installed window.



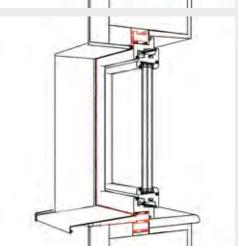
1. Install the mounting frame in the masonry.

Instead of the finished window, only the FIN-Fix mounting frame is initially installed in the building shell. Compared to windows, our FIN-Fix mounting frames have a significantly shorter delivery time: the frame is available two to three weeks after the survey.



2. The mounting frame is plastered into the shell.

Insulation and plastering are rough works involving dust and dirt. Windows that have already been installed during this construction phase must be laboriously protected against damage. The FIN-Fix mounting frame on the other hand prevents damage to your new windows because these are only installed later.



3. Insert the window into the mounting frame.

Once the dirty construction works are finished, the window is simply inserted into the mounting frame. Should the window have to be replaced, even decades later, thanks to the mounting frame it can be removed without any need for masonry work.

- standardised and independent of the desired Finstral window system
- supplied complete and installed by ourselves without any additional works
- heat insulation is ensured because it is made of highly insulating recycled PVC with co-extruded gaskets
- heat insulation is ensured by the insulated windowsill, insulated screed joint down to the unfinished floor or optionally to the guide rails of the shading systems
- in the FIN-Fix Bloc version, the mounting frame also simplifies the installation of shading systems
- dirt-free and easy window replacement with no need for intervention in the building structure

Mounting method

Slide-on installation

Window replacement in just two hours.

Almost too good to be true: windows replaced without any need for masonry work. Slide-on installation means that the old wooden window frames do not have to be removed. They are simply cut back and covered with a new frame and new joint profiles.









This is how slide-on installation works.

Just three steps to a perfectly installed window.



1. The window frame is cut back.

The existing window frame is first released from the sashes and fittings and then cut back. The window installer has no need of intervention in the building structure – which is why no masonry or painting work is required for replacing the window.



2. The window frames are covered.

A new window frame is slid on and covered with joint profiles on the exterior. This upgrades the existing window frame with insulation values that now correspond to the current state of the art.



3. The sash is hung.

The new window sash is hung in the slid-on window frame. The window replacement is thus completed in around two hours.

- dirt-free and easy window replacement with no need for intervention in the building structure
- old window frames remain in place and are simply cut back
- windows are replaced in just two hours
- everything from a single source: installation planning and realisation by Finstral
- a pioneer of slide-on installation: Finstral has been using slide-on installation since 1978

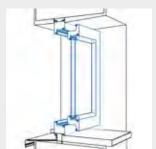


High-quality window refurbishment in just 30 minutes.

Slide-in assembly simplifies the replacement of PVC or aluminium windows in buildings dating from the 1970s, 80s and 90s without any noise, dirt, scaffolding or evacuation of tenants – and with an ift-approved structural joint and unlimited design options for the new windows, as the Nova-line sashes with or without Venetian blinds between the panes are suitable for the slide-in installation technique.

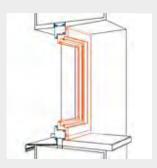
Mounting method

Slide-in installation



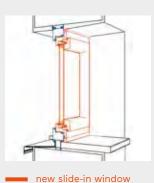
1. Structural joint remains in place.

Only the sash frame and fittings are removed in the event of refurbishment. The PVC or aluminium window frame remains as it is: it is neither ripped out nor cut back, just properly cleaned. This leaves the functioning structural joint in place without the need for replacement. Heatinsulating composite systems or façade shells do not have to be removed for slide-in installation.



2. The existing frame is upgraded by the slide-in process.

The existing window frame is duplicated by a profile inserted from the inside, with no masonry work necessary. Installation is realised from the inside and only takes around 30 minutes for each window. It is simply a matter of screwing and glueing. The effort required to establish the construction site is minimal: no need for scaffolding, covering of furniture or evacuation of tenants. In this way, slide-in installation can be carried out during the building's business hours.



3. New windows on the inside – character is retained on the outside.

Duplicating the window frame means that the frame of the old sash is replaced. The newly installed Nova-line sashes are frameless. The look from outside remains the same both before and after refurbishment. The new window will completely cover the old window frame on the inside and can be made from any material you want: PVC, aluminium, wood or ForRes.

existing window

- ideal solution for refurbishing PVC and aluminium windows from the 1970s, 80s and 90s
- quick: windows can be replaced in as little as 30 minutes per window
- clean and quiet: no construction site needed and hardly any noise produced as only drilling is necessary
- resource-saving: structural joint and old window frame remain in place
- attractive: the view outside is preserved while the inside gets a new look
- uncomplicated: only one specialist is required, windows can be replaced during business hours
- perfectly easy to plan: low coordination effort required, few unforeseen expenses, costs easy to calculate



Sealing

We know that the installation is just as important as the energy-efficient window itself. Which is why we seal our windows properly. And we don't just follow standards - we set our own. We regularly demonstrate just how good these are during audits carried out together with the Institut für Fenstertechnik in Rosenheim.



Sealing

Assembly standards

Sealing

Mounting material

We leave nothing to chance.

That is why we not only build first-class windows, but also do everything we can to ensure first-class installation. Architects can access our library of almost 700 structural joint drawings - of which more than 300 have been approved by the Institut für Fenstertechnik (ift) in Rosenheim. We will be happy to manufacture any missing structural joints on request. Moreover, we ensure that our Finstral partners also always deliver Finstral quality. Thus every partner regularly participates in obligatory installation training, while more and more of them have the quality of their installations certified by the ift in Rosenheim and checked during annual audits.



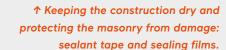


View of one of Finstral's installation training rooms. →

Professionally mounted: with sealing films and sealant tape.

To ensure that our windows always sit tightly in the masonry, we use highly ageing- and weather-resistant sealant tape and highquality sealing films. These guarantee RAL-compliant sealing for your window.





- chemical-free sealing
- ageing- and weather-resistant
- RAL-compliant sealing films

Interior You decide the design and operation of your window.

Interior - designing the spatial effect.

Real wood, aluminium, embossed PVC – or our innovative, sustainable ForRes profiles? Spruce White glazed or an all-glass look? A classic or extra-narrow frame shape? With a windowsill? And with which handles? Anyone with a home knows the aesthetic effect of windows: colour, material and surface structure all affect the atmosphere of a room and should definitely match the individual interior style. That is why we of course offer you the maximum design freedom for the inside of your windows. Equally important is the operation of the windows, which should always be intuitive, smooth, reliable and natural. All this makes a vital contribution to the feeling of comfort and well-being in everyday life. Here too, of course, we strive to combine aesthetics and function without compromise.



Always individual design.

Material Colour/Surface Frame shape Handles/Hinges Accessories

Always intuitive **operation**.

Opening types User comfort Safety in use Ventilation

Your perfect window: compose it yourself!

The everyday view from the inside to the outside is always a view of and through the window. We believe you should be able to configure this view exactly according to your design, needs and preferences. At Finstral you can compose the inside of your window yourself from a variety of materials, shapes and surfaces. Always right, always perfect!

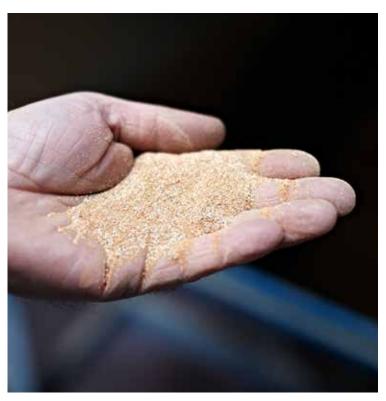
Always individual design.

Material Colour/Surface Frame shape Handles/Hinges Accessories



Material

We want you always to be able to rely on our special Finstral quality. How can we do that? Very simply: we do as much as possible ourselves. Only in this way do we have the freedom to implement the highest standards without compromise – including for the materials that we use for the interior. From PVC and aluminium to wood and our new, sustainable material ForRes: we take care of every critical production step on the way to making the perfect window – with Finstral everything is always from one source.





All aluminium profiles are manufactured exclusively for Finstral according to our drawings – and they are cut and fitted in our own plants.

Finstral has been manufacturing PVC profiles itself for almost 50 years now – made to a special recipe from PVC granulate.

es ot so s.

Finstral continues to think and develop: we are the first window manufacturer to produce a sustainable, high-quality frame material from PVC residues and rice husks – ForRes.



The wood for our veneers comes from sustainable forestry. We not only choose it carefully, we also process it ourselves.

"Diversity cannot be taken for granted."

You don't buy windows off the shelf. You plan windows individually. They are after all supposed to match the architecture of the house and its style of decor. Window consultant Lorraine Elsman advises house-owners how to design the perfect Finstral window and knows what to look for when choosing the frame shape, colour and material.

Maximum design freedom – what is so special about that?

Lorraine Elsman: True diversity and freedom of design cannot be taken for granted. Anyone working with windows will quickly notice that. On the one hand, you learn about a wealth of possibilities: modern all-glass looks, clever solar protection solutions, various security fittings... that all sounds great at first. However, once you start planning your window, you realise that many features and design options cannot be combined. This is because most custom-made windows ultimately consist of prefabricated modules.

And matters are different with Finstral?

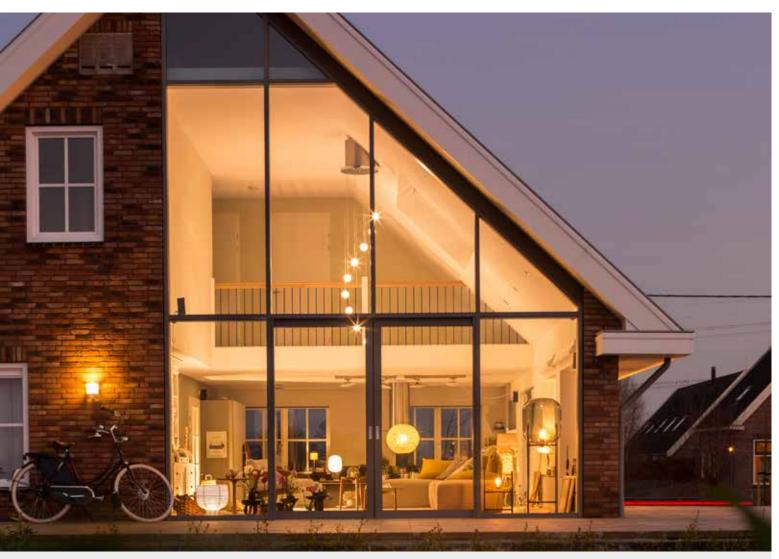
Yes, we are one of the very few manufacturers to develop almost all individual components ourselves. For our customers, this means that every detail is conceived and constructed so that everything can be combined with everything else. At least as long as it produces a reasonably practical combination. That is what we mean when we speak of maximum design freedom. And that makes our range into something truly special.

What is typical of Finstral windows?

Slim frames. Of course, this varies according to the design style. But, if you compare our windows to other manufactures, you'll always find that Finstral frames are among the slimmest. This makes our windows appear more elegant. But, above all, they allow much more daylight inside. Because the slimmer the frame, the larger the glass area. This can soon mean comparatively 10 to 20 percent more glass area.

How important are material and shape for the spatial effect?

That's a very personal choice. We believe it is important that you don't have to decide for the whole house, but rather that you can rethink and combine things room by room. Finstral lets you freely vary materials from floor to floor, room to room and even from window to window. For example, you can choose oak frames for the living-dining area, all-glass sashes for easy cleaning in the kitchen and robust PVC in the bathroom. While on the exterior the windows are all framed in a uniform dark aluminium. So you achieve maximum impact for each room in your property.



 \uparrow It is not just the size in terms of square metres that determines whether or not we think a room is large. The colour scheme also influences our perception.

Do you have any tips for choosing colours and surfaces?

My tip is very simple: think of windows as part of the design. The choice of colour and surfaces should match your style of living. Finstral considers a high-quality finish for surfaces to be hugely important. Our wooden frames are treated exclusively with natural, water-soluble paints. All aluminium surfaces receive a powder coating that meets the demanding and particularly robust Qualicoat-Seaside standard. And Finstral is the only manufacturer to compact all PVC surfaces by means of a special process. This closes the micropores that otherwise act as dust traps while significantly reducing unsightly traces.

Do you use other frame materials besides the classic PVC, aluminium and wood?

Of course there are different possibilities. On the one hand, we can conceal the frame behind the glass. On the outside we call this very modern look Nova-line, while on the inside it is called Cristal.

But if you are looking for a really new and sustainable material, have a look at ForRes. This material is a genuine innovation by our company. ForRes is made of recycled PVC and rice husks, a residual product of agriculture. The result is an extremely robust and durable material that is suitable for both indoor and outdoor use. ForRes has very similar product characteristics to PVC, but has its very own warm, pleasant feel. Window frames made from this material are truly eye-catching.



← As a window consultant in direct sales in and around the Dutch city of Apeldoorn, Lorraine Elsman knows what her clients expect of a perfect window.

Four materials - for every need and style.

How do you want to arrange things, what sort of surroundings make you feel comfortable? The material of the window frame and sash will have a decisive influence, because it affects the atmosphere of the room. Finstral offers four options – each one with its own character. All offer outstandingly high quality.



PVC: an attractive, high-quality product.

No other window manufacturer has more experience and expertise of PVC surface finishings. You can both see and feel it – especially on the inside.

Advantages:

- particularly easy to clean
- long-lasting, robust, always colour-fast and economical
- safe for the health: best class in emission behaviour
- environmentally friendly: always lead-free and recyclable



Aluminium: elegant and versatile.

The shimmering elegance of aluminium also creates unique tones in the living environment – and Finstral offers a particularly wide colour range.

Advantages:

- 243 colour variants, smooth or textured
- dirt-resistant, easy to clean, durable
- environmentally friendly: always recyclable



Softwood or hardwood: natural and cosy.

For a really homely atmosphere it has to be real wood! As it presents no functional disadvantages as a material on the inside, Finstral offers both hard- and softwood.

Advantages:

- natural aesthetic, also available with various varnishes
- environmentally friendly: wood from sustainable forestry



ForRes: sustainable and innovative.

Can an impressively high-quality window material be developed from PVC offcuts and rice husks? Finstral has done it – with ForRes.

Advantages:

- new yet also very homely look and feel
- durable, robust, easy to clean
- environmentally friendly: manufactured so as to conserve resources and always recyclable

Material

Overview





Colour and surface

From the inside, the window is part of the decor. It must therefore match the style of your living areas. Whether satin finish or embossed, a warm wood look or modern grey – you decide what your window will look like and whether it should harmonise with the interior or set specific accents. The colours and finishes you choose will depend on your needs and taste. By the way, all Finstral surfaces always have one thing in common: high-quality workmanship.



Enjoy the view – we provide the perfect framework. All with the maximum variety of colours and surfaces.







 \downarrow Satin finish surface, greatly enlarged.





PVC

Embossed and satin finish

↑ Embossed surface, greatly enlarged.

Convenient and attractive.

Embossed or satin finish? These two surfaces constitute Finstral's distinguishing feature. Instead of sticking them on with a film, we are as yet the only manufacturer to emboss the textures directly into the material. This not only looks authentic, it also makes the surface scratch- and dirt-resistant.

Embossed surfaces: stylish and with the appearance of lacquered wood.







Satin-finish surfaces: a purist and modern look, a pleasant feel.







Advantages:

- embossed or satin finish in three aesthetically pleasing colours
- no production-related traces in which microdust can settle
- fewer micropores than classic smooth PVC window profiles, meaning windows are dirt-resistant and easy to clean
- completely through-dyed for a high-quality appearance even with open windows
- surrounding and sash frames are also available in different colours

PVC

No embossing

01White extra smooth

Classic.

Smooth white surfaces remain the classic when it comes to PVC windows. However, dirt and microdust can easily settle on the smooth profile surface. Our answer is: White extra smooth. The dirt-sensitive micropores of this particularly smooth surface are closed by compressing them in the extrusion process. This makes it dust-resistant and easier to maintain. White extra smooth is available for FIN-Window.

Advantage:

- hardly any traces and fewer micropores, making it easy to care for and dirt-resistant



PVC

Embossed wood decor

Visually natural.

Oak, Castagno or Walnut: a PVC window with wood decor is hard to tell apart from an actual wooden window, but is less sensitive to dirt and easier to clean.







Advantages:

- three authentic-looking embossed wood decors
- always permanently bonded to the profile with Finstral
- always with a high-quality embossed surface
- surrounding and sash frames are also available in different colours



Deceptively real:

our Castagno decor adds warmth and comfort to your home. To create the typical wood look the wood decor is fused into the PVC and the surface is embossed with a wooden structure. The frame is also completely throughdyed in a matching brown tone. This means that the window also looks good when it is open.

Smooth, fine structure or naturallooking wood decor: aluminium is not only high quality and elegant, it also offers you the widest range of styles and colours.

Flush FIN-Project window in aluminium-aluminium, special effect colour Sablé 583. →



↓ Always versatile: aluminium full strength is available in 212 colours, both for smooth and fine-structured surfaces – 185 of which are in RAL tones.



Full strength



Always individual design.

White or bright red instead? You decide. With 212 colours available for our modern, smooth or fine-structured aluminium surfaces, we offer a particularly wide variety of choice. And, of course, the colour that will perfectly match your home.

A small selection of the colours available:

M115	M716	M742	M905
Light Ivory	Anthracite Grey	Traffic Grey	Jet Black

- wide range of colours
- high-quality powder coating that perfectly covers even corners and edges
- dirt resistant and easy to clean
- surrounding and sash frames are also available in different materials and colours
- all RAL colours are available in matt finish; a selection of RAL colours is also available in fine structure form



Aluminium

Striking colours

Vivid and bursting with effect.

An aesthetically vivid effect with changing reflexes? Whether Sablé tones with a slightly grainy texture, or with a metallic effect, our striking colours will add a particularly attractive surface to your windows. The light breaks in to create an ever-changing variety of surprises.

A selection of the colours available:



Advantages:

- maximum colour range with seven Sablé colours, seven metallic colours and four classic mottled tones
- high-quality powder coating that perfectly covers even corners and edges
- dirt resistant and easy to clean
- surrounding and sash frames are also available in different materials and colours



← Finstral windows always look good – in wood decor too.

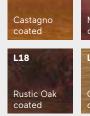
Aluminium

Wood decor

True to life.

L13

Combine the appearance of real wood with the longevity of aluminium: wood-decor windows are robust and give your living areas a warm, natural atmosphere.



















- available in ten natural-looking wood decors ranging from light to dark
- dirt resistant and easy to clean
- coatings are permanently burned in
- high-quality powder coating that perfectly covers corners and edges
- surrounding and sash frames are also avilable in different materials and colours

Authentic and cosy.

Do you want the emotional appeal of wood for indoors? Then choose our sustainably produced spruce wood in one of six classic shades. Unlike on the outside of the window, when solid wood is protected from the weather on the inside it can show off its unique aesthetic qualities for many years to come.

1X01	1X03	1X08
Spruce Nature	Spruce White smooth	Spruce Pearl White smooth
1X05	1X06	1X07
Spruce bleached	Spruce Beige Grey	Spruce Brown

Real wood

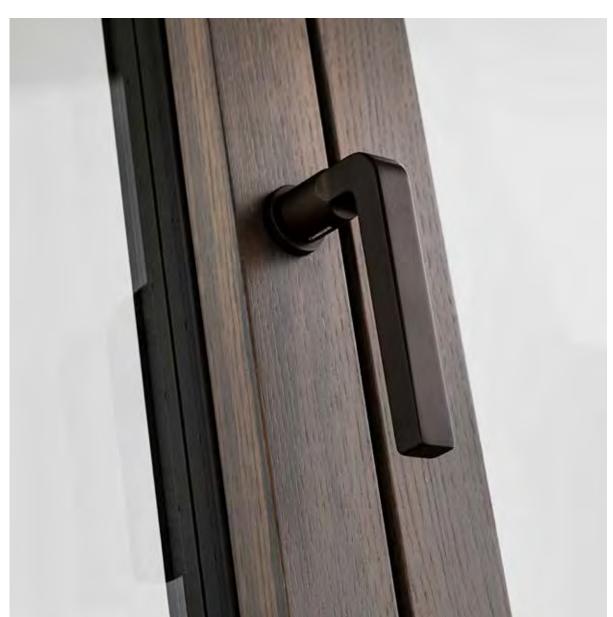
Advantages:

- maximum variety: choose from six different colours
- always from Finstral's own wood processing plant
- water-soluble paints that are not harmful to health
- corner joint is always edgeless
- surrounding and sash frames are also available in different materials and colours

Softwood



← Flush wooden frame, inside colour Spruce White smooth.



← Wooden frame, interior Dark Brown.

Real wood

Hardwood

Modern and high quality.

Hardwood is both high quality and particularly durable. In addition, the natural window material gives each room a homely atmosphere. Choose from Natural Oak and seven modern colours and varnishes.



- choice of eight different colours and varnishes
- always from Finstral's own wood processing plant
- water-soluble paints that are not harmful to health
- surrounding and sash frames are also available in different materials and colours

ForRes

Pleasant to the touch and fully sustainable.

It looks good, feels good and is good for the environment. For Res is an innovative material that Finstral produces from recycled PVC and rice husks. The fine, open-pored structures give it a unique look and pleasant feel. It can be precisely processed, is very resistant and is highly insulating.













Advantages:

- available in six always solid colours
- clean design, modern lines
- open-pored material with unique look and feel
- extremely sustainable as it is made of PVC waste and rice husks and is fully recyclable
- always durable and easy to maintain
- window and sash frames are also available in different materials and colours



Unique look, resourcesaving and recyclable: our innovative material ForRes.





The window material of tomorrow - our ForRes.

Finstral has been driving innovation in the European window industry for some 50 years now. For our new material, ForRes, we have applied our many years of experience with PVC to manufacture it from PVC offcuts and rice husks, an agricultural by-product. This results in a high-quality material that can be precisely worked and has high insulation values – and looks good besides.





Frame shape

The aesthetics of a window are decisively influenced by the frame shape. Finstral's different frame shape variants offers are presented in the section dealing with the outside (page 23). There are additional design options for the inside, especially when it comes to the visual impression of the interplay between the glass, the movable sash frame and the fixed window frame.

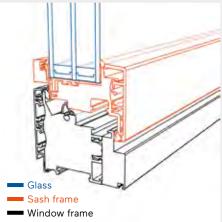
Frame shape

Window frame design

Modern or characteristic: choose the right design for your window frame!

Windows consist of a fixed window frame and a movable sash frame. The surfaces of surrounding and sash frames can be offset or flush, depending on the design effect you are aiming for.



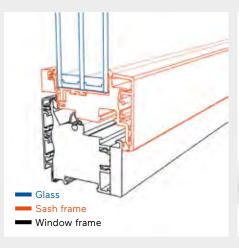


Flush.

When the window frame protrudes so that it is flush with the sash frame, it gives the visual impression of a single large surface. This looks particularly modern.

Offset.

The surfaces of the surrounding and sash frames are not flush, but slightly offset from each other. This means that, compared to the window frame, the sash frame stands out a little – typical of the characteristic, classic window look.







Frame shape

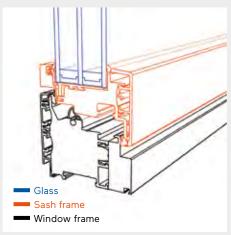
Sash frame design

Reduced, traditional or straight: choose the right design for your sash frame!

The sash frame is the movable part of the window frame: it gives the glass its shape – and you can also design this link between frame and glazing down to the last detail. There are three variants to choose from.

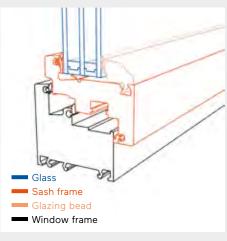
Reduced - no glazing bead.

The sash frame is supplied with no attached glazing bead: the direct transition to the installed glass produces a modern, reduced effect.









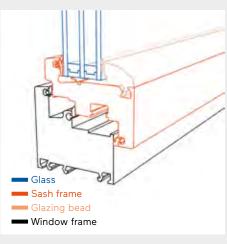
Traditional – with Stil glazing bead.

A strikingly profiled bead on the sash glass creates an optical link with a slightly more traditional appearance. The material, colour and surface of the bead all match the frame.

Straight - with Classic glazing bead.

The sash frame can also be combined with a slightly bevelled bead that is attached to the glass.

Like all glazing beads it is always mitre-cut by Finstral itself.





Frame-covering glass

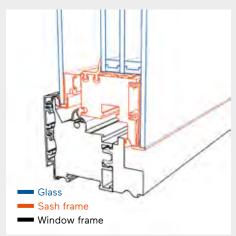
Cristal

Always more glass, always less frame.

As much glass and as little visible frame as possible! This is the optical principle of our Cristal models. The glass pane completely covers the sash frame while the edge enamel, available in ten colours, adds an extra touch. This makes the sash frame almost invisible. The result is a window that appears to be made almost entirely of glass.

Flush.

The window and sash frames are set almost flush and form a single plane: thus the window frame holds the glass like a gemstone.







Offset.

The sash frame, covered by the glass, protrudes slightly from the window frame. The glass thus appears to sit on the window frame.





When a spectacularly large glass surface, including the inner Venetian blind, is positioned flush with an extra-slim window frame made from the innovative material ForRes, it shows we believe that uncompromising functionality and maximum aesthetic appeal are not mutually exclusive!

Rich colours. Long-lasting lustre.

With all Cristal models, the glass of the pane extends over the entire sash frame. At the four edges, exactly to the width of the frame, we burn a coloured enamel layer into the back of the glass at a temperature of 670°C for a long-lasting, vivid lustre. There are ten colours to choose from.



Frame-covering glass

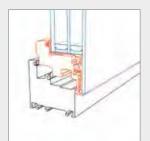
- everything always from a single source: we also enamel the glass at our plant in Scurelle near Trento
- always a uniform look colours used for enamelling Finstral entry doors also available

Frame-covering glass

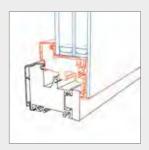
Cristal sash variants

Maximum glass.

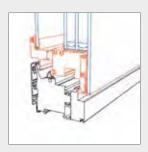
In the Cristal version, the sash frame inside the window disappears completely behind a glass surface. This produces a full-glass effect on the room side. Further combining the window with an exterior concealed frame will achieve the maximum in terms of glass and light.



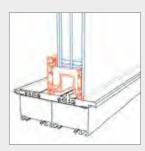
FIN-Window
Slim-line Cristal
PVC-PVC,
aluminium-PVC,
also available with Twin
composite sash



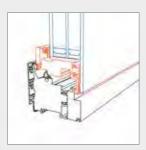
FIN-Ligna
Slim-line Cristal
aluminium-wood,
PVC-wood



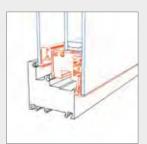
FIN-Project
Slim-line Cristal Twin
aluminium-aluminium,
aluminium-wood,
aluminium-ForRes



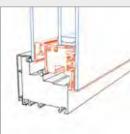
FIN-Slide Slim-line Cristal aluminium-aluminium, aluminium-wood, aluminium-ForRes



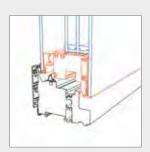
FIN-Project Step-line Cristal aluminium-aluminium, aluminium-wood, aluminium-ForRes



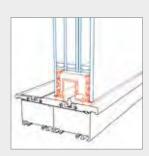
FIN-Window Nova-line Cristal TwinPVC-PVC



FIN-Window Nova-line Cristal Twin aluminium-PVC



FIN-Project Nova-line Cristal Twin aluminium-aluminium, aluminium-wood, aluminium-ForRes



FIN-Slide Nova-line Plus Cristal aluminium-aluminium, aluminium-wood, aluminium-ForRes

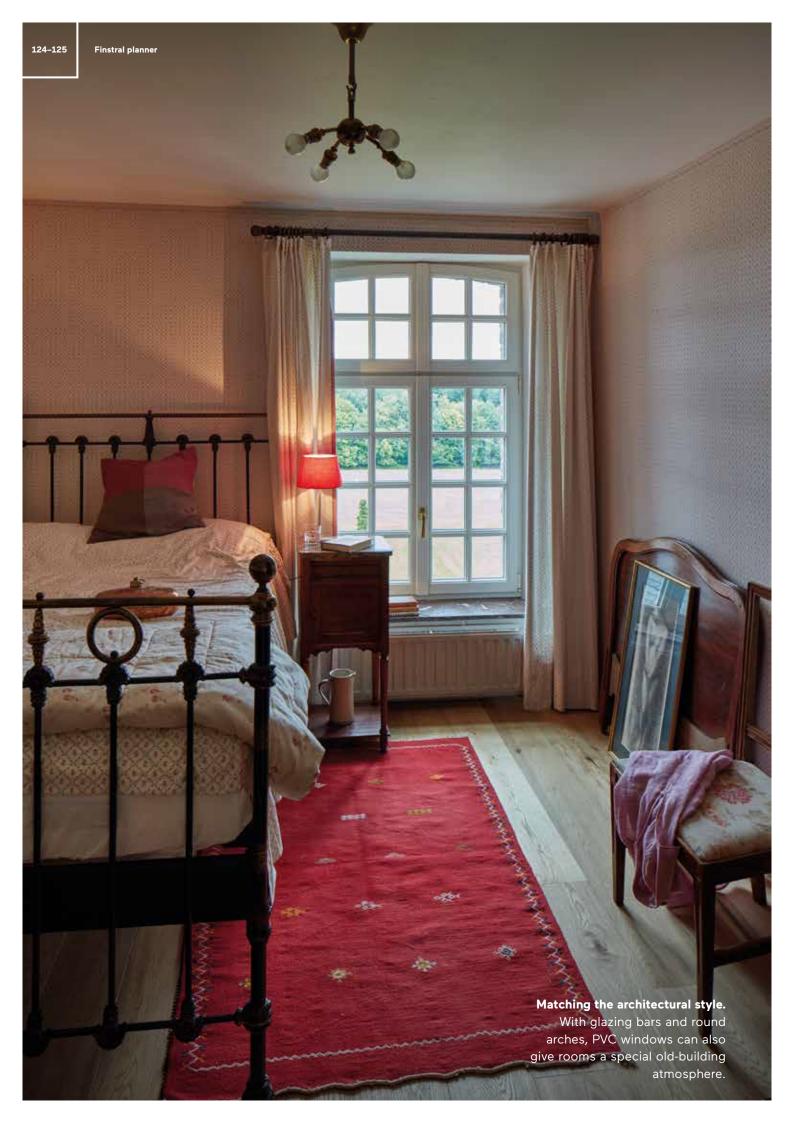
 $^{^{\}star}$ For an overview of all windows see table from page 186 on





← FIN-Project

Nova-line Cristal Twin
aluminium-ForRes
in single-sash version in exterior
colour 358 Gris and edge
enamel Black, with internal
Venetian blind.





Frame shape

Round shapes

Round, not rectangular.

From round arches with glazing bars for historic buildings, to circular porthole windows as a design element for modern architecture, who says windows have to be rectangular?



Advantage:

 available for all PVC-PVC sash variants and the Nova-line aluminium-PVC sash window



From triangular to trapezoidal.

Small changes can have a big impact: with our special shapes there are no limits to how you design your façade. Whether slanted, angular or trapezoidal for roof and gable areas – we always have the perfect solution for your window requirements.

Frame shape

Special shapes

Advantage:

available for numerous Finstral sash variants

Frame shape

Fixed glazing

Fixed, without any sash.

In stairwells and cellars or as a specific design element for the façade – fixed glazing is suitable for all areas where light enters but windows do not have to be opened. Unlike other windows, no sash is used and the surrounding frame is directly glazed instead.

- no sash frame required as the window frame is directly glazed
- also optionally available with glass corner



Handles and hinges

Always perfect down to the last detail. Finstral windows also feature attractive functional elements.









Inserted into the sash profile, the round rose has a reduced appearance.







Brass, aluminium or stainless steel – it is up to you when choosing your handle. For Finstral it is very important that the details always match.



Window handles

Always individually matched to your window.

As it is the little things that make the difference between very good and perfect, we offer you just the right handles for each window. Classic or modern, traditional or distinctive – you can always choose from a variety of shapes, materials and colours with Finstral. In addition, all our handles are compatible with the standard fixings of other handle manufacturers. All shapes and colours can be simulated using the Finstral planner on our website.

Handle series 1

in White, Pearl White, EV1, aluminium coloured, bronze coloured, glossy brass, optionally available with push-button or lockable



Handle series 2

in White matt, aluminium coloured or Black matt, optionally with push-down window handle, also lockable







Handle series 3 in stainless steel



Handle series 11 in EV1, Black anodised





Handle series 12 in EV1, stainless steel, Black anodised







Handle series 13 in EV1, stainless steel, Black anodised







Handle series 14 in EV1 and Black anodised





Handle series 15 in EV1, stainless steel, Black anodised







Series 11, 12, 13, 14 and 15 are all available with a classic rosette or modern round rose.

Door openers and handles

Always the perfect handle for your tilt-and-turn door.

To make sure your lockable tilt-and-turn door also looks good, you can choose just the right handle from two series.

Handle series 1

in Pearl White, bronze coloured, EV1, aluminium coloured, White, glossy brass







Handle series 2 in White matt, aluminium coloured





Always the perfect opener for your revolving door.

How to make your lockable casement door match your individual style of living: door openers in Finstral's usual wide variety.

Handle series 1 in Pearl White, bronze coloured, EV1, aluminium coloured, White, glossy brass







Handle series 2 in White matt, aluminium coloured, Black matt







Handle series 11 in EV1, Black anodised





Handle series 12 in EV1, stainless steel, Black anodised







Handle series 13 in EV1, stainless steel, Black anodised







Handle series 14 in EV1 and Black anodised





Handle series 15 in EV1, stainless steel, Black anodised









Handles

Sliding door

handles

Always functional and stylish.

Our sliding door handles also perfectly match our window handles in terms of shape, material and colour.

Handle series 1 in White, Pearl White, EV1, aluminium coloured, bronze coloured











Handle series 2 in White matt, Pearl White, EV1, aluminium coloured,

bronze coloured, Black matt,
optionally also lockable







Handle series 3 in stainless steel, optionally also lockable





Handle series 11 in EV1, Black anodised, optionally also lockable











Handle series 13 in EV1, Black anodised, stainless steel, optionally also lockable







Handle series 14 in EV1, Black anodised, optionally also lockable



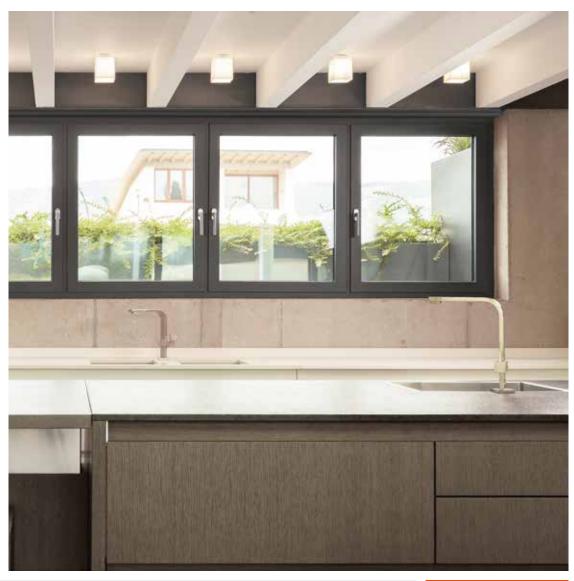


Handle series 15 in EV1, Black anodised, stainless steel, optionally also lockable









Reduced look.

Concealed hinges make for a minimalist look.

Visible or concealed - the choice is yours.

The hinges connecting the moving and fixed parts of the window can be visible and match the appearance and colour of the frame, or be concealed.



Visible hinges



Concealed hinges

Advantage:

- recommended for a more reduced appearance and easier cleaning: concealed hinges

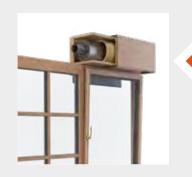
Hinges

Visible/concealed



Always a uniform look.

To ensure that your existing roller shutter box matches your new windows, we offer coverings in all PVC colours and surfaces and in all wood types and varnishes. The multi-chamber design of the box covering also increases thermal insulation.



Accessories

Roller blind coverings

Advantages:

- always colour-coordinated with your window
- additional heat insulation
- no masonry work required

Accessories

We also offer suitable accessories to ensure that the overall impression is harmonious when looking out.

True to size and just the right colour.

Of course we can also supply interior windowsills on request, always manufactured exactly to the dimensions of your window.







Rounded corners Also available



in wood

Advantages:

- available in all PVC colours and surfaces and in all wood types and varnishes
- available with straight or rounded corners

Accessories

Interior

Accessories

History centre section

For new windows that are intended to look old.

Won't all the charm be lost if new windows are installed in an old building? Not with our History centre section, designed to match the original. For a traditional look with innovative window technology.



- for twin-sash windows with dummy mullion
- handle positioned centrally on the upright
- available for FIN-Window windows in all PVC colours and surfaces

Your perfect window: always intuitive in operation.

A window should not only be aesthetic, but also simple and intuitive to operate. We believe this is very important. Is it possible to open the window comfortably? Is it really secure? Does it provide good ventilation and ensure a pleasant room climate? You will see that a perfect Finstral window means that it is always perfect in operation. After all, we want you to enjoy your window for decades.

Always intuitive operation.

Opening types User comfort Safety in use Ventilation









Opening types

Turning, tilting, sliding, folding... As there is more than one way to open a window or a casement door, we always offer just the right solution for each of your wishes and every window shape.

← For a more comfort in the home: our high-quality, easy to operate window fittings.

Opening types

Tilt-and-turn window opening

Always easy to open.

The stable, high-quality fittings mean that a tilt-and-turn window can be easily opened and closed with little effort. To ensure that operation is always flawless, we use surrounding self-adjusting roller mushroom head bolts and an anti-mishandling device. This prevents the tilted window from being turned or the open window from being tilted.









Closed position



Opening in turn position



Opening in tilt position

Opening types

Fanlight bottom-hung window opening

Advantages:

- always smooth in operation and tight-fitting
- always high-quality branded fittings that can withstand heavy loads
- anti-mishandling device fitted as standard
- sash lifter fitted as standard that will always lift the sash into the optimum closing position
- adjustable handle position height
- also available with handle-free motorised tilt-and-turn opening

More light, more air.

A fanlight not only lets more natural light into your rooms, it also ensures excellent ventilation at all times. The reason is that warm air rising upwards can easily escape through the fanlight opening. A fanlight is easy to operate, whether by means of a lever, crank or motor. Optional concealed hinges help create a clear look.



Tilt with handle

Hand lever

Crank

Motor

- excellent ventilation for warm rooms
- discreet, concealed hinges
- always easy to operate either with a handle, hand lever, crank or motor the motor can also be concealed



Always comfortable and easy to operate.

Opening - with no loss of space: Finstral sliding windows are not only extremely easy to operate, they also allow plenty of light into the room thanks to their very narrow frames – and always look elegant.



Sliding window





FIN-Scroll: light, aesthetically pleasing, less tightly sealed – the ideal alternative for warmer climates. →

↑ The parallel sliding-tilt window: solid, secure, weatherproof – as tightly sealed as a window, as smoothly running as a sliding door.



More space, more comfort.

Sliding windows are particularly suitable for rooms where (work)space is scarce, such as in the kitchen. The windows are easier to clean when located on the ground floor or next to balconies or terraces.

Opening types

Casement door

Light and secure, indoors and outdoors.

Casement doors are perfect for opening onto a balcony or terrace. Finstral always fits them with a high-quality pull handle, a reliable door snapper and aluminium step protection. Casement doors with a particularly flat – and therefore barrier-free – threshold are available as an option. You can also choose between a single or double-sided handle and locking function. The casement door thus becomes a second entry door.



↑ High-quality aluminium pull handle on the exterior.



↑ Elegant exterior handle for Nova-line sashes.



↑ Nova-line Plus high-quality sash extension for casing.



Threshold variants.

Finstral casement doors offer the option of replacing the bottom part of the window frame with a lower, more comfortable threshold.



↑ Threshold variant with window frame, exterior PVC and step rail.



↑ Threshold variant with window frame, exterior aluminium.



↑ Flat threshold variant only 2 cm in height (barrier-free).

← FIN-Window Slim-line Cristal N 90+8 aluminium-PVC

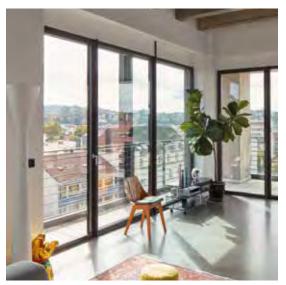
- FIN-Window offers four security locks, while FIN-Ligna and FIN-Project have peripheral security locks as standard
- flat threshold and concealed hinges available as option
- PVC window frame with step protection as standard
- selected sash versions are optionally lockable on both sides
- available in all sash variants





Weather protection for your solar protection.

In the Twin version of the casement door, an aluminium Venetian blind or a fabric pleated blind can be fitted between two bonded window sashes. This ensures your solar protection is perfectly protected from wind and weather.



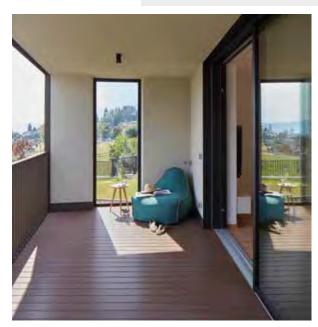


Opening types

Sliding doors

Always just the right fit.

What's perfect is what fits: which is why
Finstral sliding doors offer you the choice
between three systems and numerous
different versions. Plenty of light, plenty of
glass, plenty of protection? No problem.
Finstral offers customised solutions to meet
your needs and requirements, always to a
high standard of functionality and aesthetics.









A way out with a view out.

We make sure that your sliding door not only fits perfectly into your overall concept in terms of function, but also in terms of appearance. Thus ensuring a feeling of space that is always beautiful and always harmonious.







Bringing the outside inside.

Invite summer into your home! Every room can feel like a terrace with our wide-opening door variants. Nor do you have to worry about tripping: our sliding doors are always available in easy-care, barrier-free versions.



Sliding doors

Parallel sliding door

Always well protected.

Of all sliding door solutions, parallel sliding doors offer the tightest sealing.

They are therefore ideal for locations that are directly exposed to changeable weather.



Always tightly sealed and space-saving.

In the case of a parallel sliding door, the movable sash moves inward when it is opened and runs parallel to the fixed glass element. This makes it particularly suitable for medium-sized sliding door solutions where a higher threshold is possible. Our parallel sliding doors are set particularly tightly into the frame by means of peripheral roller mushroom head bolts, which offer the best possible airtightness and protection against driving rain.



← Nova-line parallel sliding door with exterior frame-covering glass in aluminium-aluminium. →





↑ Threshold variant with window frame.



↑ Flat threshold variant only 50 mm in height.

- sash widths of up to 1.8 m
- with optional tilt function
- aluminium step protection as standard on PVC window frames
- available in PVC, aluminium and wood on the inside
- available in all sash variants except Cristal and Twin





part and asymmetrical appearance.

Always simple. Always attractive.

With FIN-Scroll the movable sash is simply pushed over the fixed glass part of the door when it is opened: our lightweight, aesthetically pleasing and economical alternative to the classic lift-and-slide door.



FIN-Scroll Slim-line aluminium-PVC with two sashes and symmetrical appearance.



Advantages:

- sash widths of up to 1.5 m
- also available as variant with concealed side part inserted into wall
- low threshold
- also available with two opposite-sliding sashes



↑ Threshold only 30 mm in height.



Sliding doors

FIN-Scroll

Always more summer.

Whether for a holiday home or a second home, the FIN-Scroll sliding door is always the ideal solution when maximum insulation and tight sealing are not at a premium – especially in areas with warmer climates.

Sliding doors

FIN-Slide lift-and-slide door

Always barrier-free and large in size.

The FIN-Slide movable sash raises slightly when it is opened: when closed, it lowers back to the threshold: this mechanism produces doors with very flat thresholds and a very high degree of tightness. The design also allows for extra-large sashes that can easily be opened and closed - and are available in a wide variety of materials and designs.

Advantages:

- for large sliding sashes of up to 2.5 m wide
- four always smoothly operating versions: classic, Soft-Close, Soft-Close&Open, and a motorised sliding door
- optionally available with interior or exterior frame-covering glass, also available with covered glass on both sides
- also possible as twin sash without centre mullion the sashes meet in the middle and lock together
- also available as variant with concealed side part inserted into wall



← FIN-Slide Nova-line Cristal aluminium-aluminium, version with Vent ventilation sash and Nova covered glass central section.



FIN-Vista window wall corner with FIN-Slide Nova-line Plus aluminium-aluminium. →



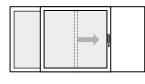


A wealth of glass.

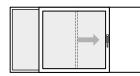
No need for a centre mullion: the sashes of the Nova dummy mullion opening meet in the middle and lock together. As the glass runs over the sash frame, the windows give the impression of a continuous glass front when closed.



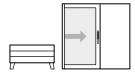
← Nova dummy mullion opening with all-glass look.



The frame width of the fixed glass side parts can be adjusted to the frame width of the sliding sash to produce a symmetrical look.



The asymmetrical variant of the FIN-Slide door offers different frame widths and the maximum possible glass area.



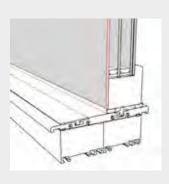
With FIN-Slide Hide, the side part is concealed in the wall: ideal for rooms with a limited wall surface area, as this provides more room for furniture.

Cosy and elegant.

Real wood and large glass surfaces: FIN-Slide combines naturalness with modern elegance.

> FIN-Slide Slim-line aluminium-wood. →





Sash with exterior all-glass look.

In this sash variant, called Nova-line Plus, the glass covers the frame of the sliding door on the outside. Not only does this look elegant, it is also easier to care for: the frame has no edge to catch leaves, dirt or road salt.

FIN-Slide lift-and-slide door

Glass options



Sash with interior all-glass look.

In this variant, called Cristal, the glass covers the frame of the sliding door on the interior. This gives the interior a reduced look and makes the sliding door look particularly slender.



Sash with exterior and interior all-glass look.

In the Nova-line Cristal Plus sash variant, the glass covers the frame of the sliding door on both the exterior and the interior. For a maximum reduced look combined with minimal care: the frame has no edge on the outside to catch leaves, dirt or road salt.



Fixed part with glass-covered central section.

In this version the mullion of the fixed part is covered by glass on the outside. This results in an even more reduced look with plenty of glass.



Fixed part with glass all the way to the bottom.

In this version, frame-covering stepped glass covers the window frame of the fixed part on the outside. Not only does this look elegant, it is also easier to care for: the frame has no edge to catch leaves, dirt or road salt.









A wealth of glass.

In the FIN-Slide Nova-line Cristal Plus version, most parts of the frame are covered by glass. This makes the lift-andslide door look particularly elegant and reduced.

FIN-Slide lift-and-slide door





Frameless installation with concealed window frame.

For an even more reduced look, the window frame of the sliding door installation can be completely concealed with plaster on the inside, making the glass seem to flow into the ceiling. All that is visible on the outside is a two-centimetre thin aluminium frame, which has a functional purpose: the pane can subsequently be replaced without the need for costly masonry work.



Installation with visible window frame.

In the classic version, the frame of the lift-and-slide door is as usual visible from the inside.



↑ Push-button ventilation: with motorised opening.

Motorised operation.

The operating mechanism can be automated with an electric motor. This opens and closes the sliding door at the touch of a button – or even via your smartphone.

Advantages:

- automatic locking, unlocking and sliding of the sashes with soft start and stop operation
- can be operated via buttons on the sash or by remote control
- built-in anti-pinch function
- emergency operation in the event of power failure by means of push-in emergency levers
- Wi-Fi module integrated as standard for remote control via smartphone or tablet



So beautiful, so secure: the ventilation gap position. →



↑ Intruders have no chance of getting in with the Vent ventilation sash. →

Always secure ventilation.

To ensure fresh air without any sacrifice of security, FIN-Slide has a ventilation gap position. This allows the door to remain partly open – yet still locked.

The sliding door with a Vent sash produces a particularly elegant combination. It allows invisible ventilation that includes insect and burglary protection (see page 155).







← Extra-flat, easy-care thresholds.

Always barrier-free.

At a height of less than 2 cm, the barrier-free threshold of our FIN-Slide lift-and-slide doors is one of the lowest on the market. And, as it has no recesses where dirt can gather, it is also particularly easy to care for.



Opening types

FIN-Fold folding door

Always maximum opening.

FIN-Fold combines the advantages of an inward swinging casement door and a sliding door. Our folding door is particularly suitable for large openings with no fixed side part. It is easy to operate as well as being barrier-free: the flat door thresholds mean that there is absolutely no obstruction when going in and out. FIN-Fold is manufactured in aluminium and, if desired, in wood on the interior.



↑ FIN-Fold Slim-line aluminium-aluminium.





↑ Threshold variant with window frame (up to 75 mm).



↑ Flat threshold variant only 2 cm in height (barrier-free).

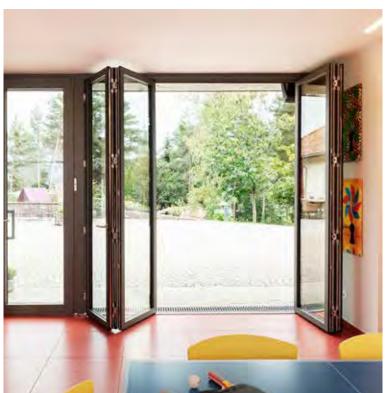




← FIN-Fold Nova-line Plus aluminium-aluminium.

- barrier-free thanks to extra-flat thresholds
- permits extra wide openings
- available in Slim-line and Nova-line Plus variants with glass covering the sash on the outside





More light. More air.

Thanks to its unique design and folding mechanisms, FIN-Fold can be opened completely.



up to approx. 1.5 m wide recommended for very fast and easy operation



up to approx. 2.2 m wide



up to approx. 3.0 m wide recommended for very fast and easy operation



up to approx. 3.7 m wide



up to approx. 3.7 m wide



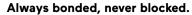
up to approx. 4.5 m wide



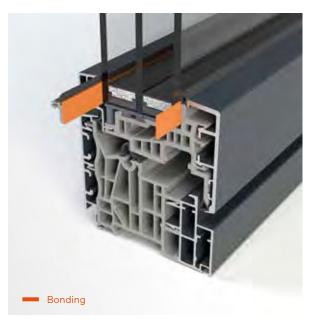
↑ FIN-Fold Nova-line Plus aluminium-aluminium.

User comfort

A perfect window must always be perfectly easy to use. That is why we don't compromise on functionality – and offer you maximum user comfort, from intelligent window sensors to motorised opening options.

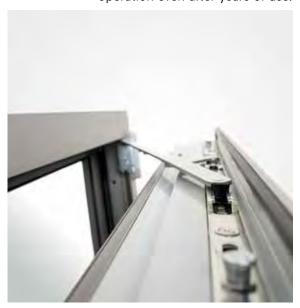


Finstral always ensures that glass and profile are bonded together to form a stable unit. This makes the window sash stiffer and thus easier to operate.



Always lifted, never hooked.

Sash lifters are standard for Finstral starting from a sash height of 841 mm: they lift the sash into the correct position each time it is closed. This ensures smooth operation even after years of use.



Always safe, never shaky.

Finstral handles are fitted with anti-mishandling devices as standard. They prevent the handle from being turned when the window is tilted so that the sash does not suddenly fall into your hand.



Always rolling, never grating.Roller mushroom head bolts are

Roller mushroom head bolts are standard at Finstral. They roll comfortably into the locking part.



User comfort

Window sensor



Always a clear overview.

A window sensor automatically monitors the opening status of the window for you and reports it to your central heating, air-conditioning or alarm system. This both increases security and saves on heating costs, because your heating system self-regulates when the window is open.

Advantages:

- available in two versions: for alarm and also for heating and air-conditioning systems
- can be integrated into all widely available home control systems and is Smart Home compatible

User comfort

Motorised opening types

Comfort at the press of a button.

Difficult-to-reach fanlights and sliding lift doors open as if by themselves – thanks to the motor drive. We can always offer you the right solution according to the application and desired control system.



Advantage:

 can be integrated into all common home control systems and is Smart Home compatible

User comfort

Tilt closing assistance

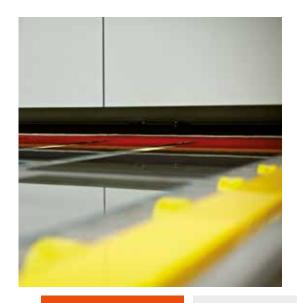
Always smooth tilting.

Tilt closing assistance is available as an option to help close windows that are in the tilt position by means of a spring mechanism. It is perfectly suited for particularly heavy sashes, e.g. for all-glass versions.

Advantage:

– easy operation even with heavy sashes





Safety in use

Safe operating, safe living. Finstral integrates numerous elements and functions into its windows to ensure smooth handling and protection against injury.

← For your safety we operate the most modern glass hardening oven in Europe - at our Scurelle plant near Trento.

Safety in use

Secure handles



Push-button handle.

The handle blocks the locking mechanism as standard, which can then be unlocked at the push of a button. This prevents burglars from opening the window.

Advantages:

- additional protection against burglars
- makes it more difficult to prise open windows as the locking mechanism is blocked



Lockable handle.

Children kept in. Burglars kept - even stronger protection out. With a lockable handle, only those with a key can open the window.

Advantages:

- against burglars
- child-safe
- makes it more difficult to prise open windows as the locking mechanism is blocked

Safety in use

Secure opening types



Tilt-before-turn function.

This means that the window can always be tilted, but it can only be fully opened with the key. Ideal for safe ventilation in children's rooms or in schools.

Advantages:

- can only be opened with a key even when tilted
- child-safe ventilation



Turn lock.

Windows with a built-in turn lock can only be tilted but not fully opened. For safe ventilation in schools or other public buildings.

- can only be tilted, turning opening is locked
- child-safe ventilation



Secures the window sash.

The sash retention device is an additional safety feature for tilt-and-turn sashes. It can be compared to a car's airbag: no one wants to use it, but it's there when needed.

It prevents the sash from dropping down under extreme force, e.g. violent impact of the sash against the reveal. An important safety feature in public buildings with constantly changing users.



Safety in use

Sash retention device

Safety in use

Safety is our concern.

Because things don't always go according to plan in life, we offer safety glazing that, depending on the version chosen, will protect against injury, burglary, sound and UV radiation.

Safety glazing



Bodysafe - our toughened safety glass (ESG).

Our Bodysafe toughened safety glass is extremely shock-resistant. Should it break, it will shatter into small, blunt pieces instead of sharp splinters. This increases protection against injury. In addition, unlike normal glass that can suffer a thermal break in the event of cast shadows, our toughened glass is immune to high temperature differences in the glass.

Advantages:

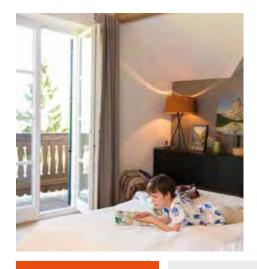
- protection against breakage and injury
- protection against thermal breaks and hail
- always made in-house in Europe's most modern hardening furnace



Multiprotect - our laminated safety glass (VSG).

Our Multiprotect laminated safety glass consists of two glass panes that are bonded with a highly tear-resistant film. If the glass breaks, the foil will hold the shards. This minimises the risk of injury. Multiprotect glass can withstand intrusion attempts using a hammer as the glass will splinter but cannot be broken.

- available in three resistance classes: P2A, P4A, P5A
- UV protection and sound insulation included



Ventilation

A window should always let two things into the living space – light and air. Because modern windows in particular are very tightly sealed, we offer a wide range of practical ventilation options to meet the requirements of your interiors.

← Correct and adequate ventilation to stop moisture and mould from forming.

Ventilation

Tilt opening variants

Summer/winter tilt position.

Ventilation needs vary according to the season. The variable tilt position is thus a simple and easy-to-use solution.

Advantages:

- tilt opening width can be adjusted by handle
- 17 cm opening for summer, 4 cm for winter
- cat protection function

Tilt ventilation gap.

The ventilation gap allows a tilt opening of approx. 1 cm. The tilt ventilation gap is also available in a secure version if required for greater burglary protection. It is not possible to tell from the outside when the window is open.

Advantages:

- tilt opening of approx. 1 cm
- ventilation position hardly visible from the outside

Two-step turning opening.

It may not be possible to tilt very tall or unusually shaped windows. Two-step turning opening offers a solution.

Advantage:

 ventilation via horizontal fixed turning opening instead of vertical tilt opening







Ventilation

So open windows stay open.

The sash limiter prevents the window sash from closing by itself. This is especially practical when opening windows wide to rapidly air the room.

- turn opening fixed at 90°
- prevents window from slamming even in strong air currents





Ventilation

Vent ventilation sash

Always secure ventilation.

The Vent ventilation sash can be opened or closed as required and is also secure, as the ventilation sash is always covered with ForRes slats and insect screens, meaning that it is not possible to tell from the outside when it is open. Vent can also be produced in such a narrow size that no burglar can slip through.





↑ Always secure ventilation with the Vent sash.



- ForRes slats positioned in front of the sashes means it is not possible to tell from the outside if they are open or closed
- no entry is possible if the sash is sufficiently narrow
- integrated insect screen

Permanent ventilation with window closed with PassiveVent Mini. →



Ventilation

PassiveVent passive ventilator

Airflow

Permanent ventilation against mould forming.

Modern windows are so tightly sealed that, without adequate ventilation, mould can form in the house. Our window rebate ventilators and PassiveVent window ventilators ensure a healthy living climate through permanent ventilation even when the window is closed. This prevents mould from forming but at the same time prevents excessive heat from being lost.

PassiveVent Midi window ventilator.

Our PassiveVent Midi window ventilator ensures permanent ventilation even when the window is closed.



Advantages:

- mounted in upper profile area
- can be closed if necessary
- air throughput: up to 30 m³/h at 8 Pa

PassiveVent Mini window rebate ventilator.

Our PassiveVent Mini window rebate ventilator ensures permanent light ventilation even when the window is closed.





← Closed.



← Without turning lock.

- mounted in window rebate
- can be closed if necessary
- air throughput: 5 m³/h at 8 Pa



Ventilation

ActiveVent motor ventilator

Intelligent and energy efficient.

Our ActiveVent motor ventilator always ensures fresh air even when the window is closed, thus preventing mould from forming. It is mounted in decentralised fashion directly on the window and is controlled remotely. Further heat loss is minimal if a heat exchanger is also installed.



Advantages:

- optional built-in heat exchanger for permanent ventilation with minimal heat loss
- motor can also be integrated into our FIN-Fix Bloc roller shutter or Venetian blind boxes
- does not require hard-to-clean ventilation pipes
- adjustable 4-stage air throughput: up to 45 m³/h at 8 Pa

← Active air exchange via the ActiveVent motorised ventilator.



Mould and moisture have no chance thanks to the minimal permanent ventilation provided by our energysaving ActiveVent motorised ventilator. A discreet cover is visible from the outside.

All-around We are always there for you when it comes to procedures and service.

All-around – always everything from a single source.

Finstral stands for innovative window profiles, state-of-the-art glass production, excellent workmanship – thus for nothing less than the perfect window. But our motto, "everything always from a single source", would mean nothing if we did not make sure you receive your perfect window in perfect condition. For example, through a network of 1,000 highly competent dealer partners with trained installers, highly reliable delivery and quality certificates that are always up-to-date.





Always the simplest **procedure**.

Coordination Installation Acceptance Always perfect service.

Warranties Certificates Customer service

Your perfect window: always perfectly planned and installed.

What starts well should also be finished well. Finstral's quality promise does not simply end with installation and acceptance. We take care of every step, from planning through to delivery and installation and we are always available to assist you as a reliable partner.

Always the simplest procedure.

Coordination Installation Acceptance



Coordination

Windows are a major investment that are custom-made for you. Finstral and its selected dealer partners are professionals when it comes to making sure everything runs smoothly, so you can enjoy your windows for decades.

Always at your side.

From competent advice to making a transparent offer, from exact on-site measurements to punctual delivery, we will accompany you every step of the way when purchasing your new windows.







Coordination

Consulting/ planning Before buying a window, visit a showroom where you can actually open and close windows of the selected type. →



Advice from trained advisers, preferably in a Finstral Studio.

Do you need help with a decision, or have you yet to see all the options? Do you want to know exactly? At a Finstral Studio you will always receive expert advice and can even try out many things for yourself. Here you can find answers to each of your questions about windows. Our window experts can also advise you at home on request.



Reference objects as inspiration.

Are you looking for examples or inspiration? Whether for new builds or refurbishments of old buildings, for hotels, commercial enterprises or ski-lift stations: our reference library on our website and our Planner Portal document numerous objects along with photos, drawings and short reports.



Product data sheets, CAD data and texts of invitations to tender.

On our website you can find the right product data sheet for each sash variant in each type of material, with illustrations, arguments, detailed information and technical drawings. In addition, you will have access to CAD data and specific texts of invitations to tender.



Product samples.

The best impression of the final window is still... the final window. We will be pleased to provide you with suitable sample material: for example, hand samples of our FIN-Project modular system, colour samples of all materials or the very sample corner you want.







IFINSTRAL

Partner Studio

↑ The "Finstral Partner Studio" label is used to distinguish over 150 intensively trained dealers throughout Europe who have equipped their showrooms with Finstral planner counters together with at least six Finstral windows.

Installation

Together with our reliable trading partners, we ensure that your new windows are professionally installed. Certification by the ift in Rosenheim confirms our high installation standards.

Installation

Installation technique

Installation - always transparent, qualified and certified.

We make sure that every step of the installation is clear and comprehensible for you and we instruct you in the operation and maintenance of your new windows. Regular training for all installation partners is mandatory. We also undertake to ensure the respectful and clean treatment of your living areas.

How window replacement works with Finstral:

1. Arrival of installer, discussion of workflow.

At the agreed time, the installer will arrive, present the team and discuss the workflow with you.

2. Arrangement of coverings.

To prevent damage to your rooms, we protect the floors and furniture with covering materials.

3. Installation of windows.

Your new windows will be installed. Always in a quick and professional manner, irrespective of the type of installation chosen.

4. Explanation of operation.

The installer will explain how to operate your new windows.

5. Handover of instructions for use and maintenance.

The installer will also provide you with detailed instructions for use and maintenance.

Installation

Returns

We take back old window elements.

After replacing your windows, we will on request pick up your old windows within a few business days and dispose of them properly.





Acceptance

Clear, honest, transparent. This is Finstral's working method, from the initial consultation to the acceptance of work and payment.



Fair and believable.

We will of course charge in a prompt and transparent manner and are always available to answer any questions you may have. You will also receive a declaration of performance along with the invoice. This documents – as required by law – all the features of your new windows and doors.

Acceptance

Invoice and statement of performance

Acceptance

Acceptance and instruction

Personal and direct.

Final quality control and acceptance are of course carried out together with you. In this process any other questions about the operation and maintenance of the windows can also be clarified.



↑ Cleaning set with instructions for use.



Your perfect window: guaranteed to work for a long time.

Windows and doors see decades of use. To ensure that they work for as long and as perfectly as possible, we place great importance on lasting quality, with certification carried out by independent institutes. Which is why we can confidently give you comprehensive warranties. And, should something go wrong, our dealer partners or our in-house customer service are always there to help you.

Always perfect service.

Warranties Certificates Customer service



Warranties and certificates

As the most certified window construction company in Europe, many of our warranties actually go beyond the minimum legal requirements. And, because we produce most of the components ourselves, we always have quality under control.

Warranties/ Certificates

Warranty services

Warranties/ Certificates

Quality marks and certified quality

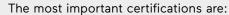


Always guaranteed performance.

At Finstral, every window is perfect. Durable and colour-resistant. And, if there are any defects, you can of course rely on extensive warranties. For every component of your new window.

Always fully tested quality.

Not only can we confidently assert the quality of our products and services, we can also provide evidence with quality marks and certificates – we have more than any other window manufacturer in Europe.



- RAL quality mark for laminated insulation glass
- RAL quality mark for PVC window profile systems
- RAL quality mark for windows
- RAL quality mark for window installation
- certified ift-quality windows
- certified ift-quality entry doors
- certified quality CEKAL insulation glass
- NF quality certificate for PVC profiles
- CSTB quality certificate for FIN-72 system
- Vinyl verified label for PVC quality



















"We're building one of the most sustainable windows ever made."

Modern windows play a key role in the energy consumption of buildings. But a truly sustainable product requires more than just a good insulation value. This is why Finstral, a family-owned company, has from the outset differed considerably from the market in its approach.

An interview with Managing Director Joachim Oberrauch

What does sustainability mean for a window manufacturer like Finstral?

Joachim Oberrauch: In order to be able to run our business sustainably, we have to look at the entire system. We at Finstral think in terms of cycles. We are not only concerned with building perfect windows, but also producing them as sustainably as possible. This means, for example, that environmentally-friendly disposal is a part of our thinking from the very outset. That's why we do almost everything ourselves, from the initial idea through to installation. This is the only way we can ensure that the entire production cycle will save materials and energy.

Those who do everything themselves can set and guarantee their own quality standards...

Exactly. This is a great advantage, especially for windows, because they consist of many different parts. Finstral is one of the few window manufacturers in Europe where you can get everything from one source. We develop the framework profiles. We mix the PVC according to our own recipe and extrude it ourselves. Wood production – beginning with the board – is also something we do ourselves. We coat aluminium, manufacture insulation glass and assemble the finished window elements. And of course we also carry out the installation.

Because we do everything ourselves, we have created the ideal conditions for building one of the most sustainable and durable windows ever.

Finstral windows are developed in a modular way – how does this contribute to sustainability?

Instead of using industry standard components, we design almost all individual parts in-house. This means that they all match perfectly. In this way, we can constantly improve our windows and at the same time produce them using fewer materials and less energy. For example, our frame profiles are designed so that all materials can be separated with little effort according to type. This makes them 100 percent recyclable. Another advantage is that Finstral profiles are slimmer than most others. This is made possible because, as a matter of principle, we bond the glass to the frame to form a stable unit - instead of using setting blocks as is usual. This means that the frame does not have to hold the glass and can be made slimmer. This looks more elegant and at the same time saves two thirds of the steel inserts that we previously had to insert into all our PVC profiles. The extremely high modularity of our system also has great benefits for our customers, because it allows them to assemble their windows to match their individual needs.



 \uparrow Whether frame or glass: Finstral designs and produces almost all components itself. Sustainability can thus be considered from the very start.

Can window installation also be made as resource-saving as possible?

Yes, installation too offers plenty of potential for this. In Europe, windows are still usually mounted directly onto the masonry. With more modern methods, installation costs can be considerably reduced and Finstral is a pioneer in this field. For example, with slide-on installation when refurbishing old wooden windows. It is twice as fast as conventional methods and also saves resources, because there is no need to damage the existing masonry. Finstral has also introduced the slide-in assembly process for the refurbishment of old PVC or aluminium windows. This allows windows to be replaced in as little as 30 minutes. As the works are only carried out from the inside, costs are radically reduced: no scaffolding, no painting or masonry work, and the premises do not have to be vacated. For new builds Finstral uses mounting frames. These are installed during the wet construction phase. This prevents the windows from being damaged. If the window then has to be replaced after 20-30 years, it can be done in minutes - with no need for masonry work.

How do you manage such constant development in the area of sustainability?

We regularly review all of our processes within the framework of ISO certifications: from quality and environmental management through to energy consumption and occupational safety. There is great potential for optimisation. In 2018 we were able to significantly reduce our resource requirements once again and, since then, we have been using 4.5 percent less PVC and 5 percent less raw glass in the production of each window.



← As a secondgeneration managing director, Joachim Oberrauch benefits from the long-term decisions made by his father and uncle to maintain the highest possible quality standards. That is why Finstral consistently follows this path.

Warranties/ Certificates

Management certificates









Always at the highest level.

Our management quality is also one of the most certified in the industry. We have ourselves continuously checked so as to offer long-term high quality standards.

Quality management.

We not only develop and construct products that meet the highest requirements, we also ensure we work in this manner. The various divisions of Finstral's work organisation in the company are checked for compliance with the certified quality management system according to DIN EN ISO 9001.

Safety at work.

Everyone working at Finstral must be safe in their workplace – that is our commitment, and we therefore make no compromises as regards inspection: we certify the continuous and preventive improvement of occupational safety throughout the company in accordance with BS OHSAS 18001.

Environmental management.

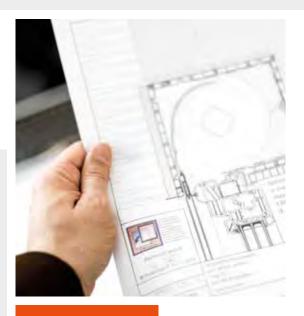
We care very strongly about the sustainable use of resources. Continuous and preventive improvement of environmentally oriented performance in the enterprise is ensured by compliance with the certified environmental management system according to DIN EN ISO 14001.

Energy management.

Our windows help save energy. But we at Finstral also save valuable resources by consistently working to reduce our energy needs. Continuous optimisation of energy consumption in all works and administrative buildings is ensured by compliance with the certified energy management system according to DIN EN ISO 50001.

Always detailed: our data for installation planning.

Finstral will give you a structural joint drawing for each installation situation with a precisely specified installation sequence and list of materials to be used. We have the largest library of structural joint drawings in Europe – around 700, of which some 300 have been approved by the Institut für Fenstertechnik in Rosenheim. We also to will be happy to manufacture any missing structural joints on request.



Certificates

Approved structural joints



Customer service

An expert dealer will always advise you if have any questions about windows or other matters. Our in-house customer service is also available – including in urgent cases. And we offer additional services for architects.



We are always by your side.

You can also rely on us even after installation is complete. Finstral operates an in-house customer service in all our sales regions. In this way we can support our dealer partners and ensure that you are never on your own should problems arise with our products.

Customer service

Manufacturer's customer service



Always just the right service for great ideas.

We also offer architects just what they expect. From structural joint drawings and test certificates, through to CAD data in DWG format, you can obtain all the details on request from the Finstral Architect Service or directly from the Architect Service Portal. For more information see www.finstral.com.

Everything about the product.

Single-family house? Company headquarters?

Renovation of a town house? Proper planning requires accurate information – in a short and precise form. We provide you with everything you need to know.

Everything for planning.

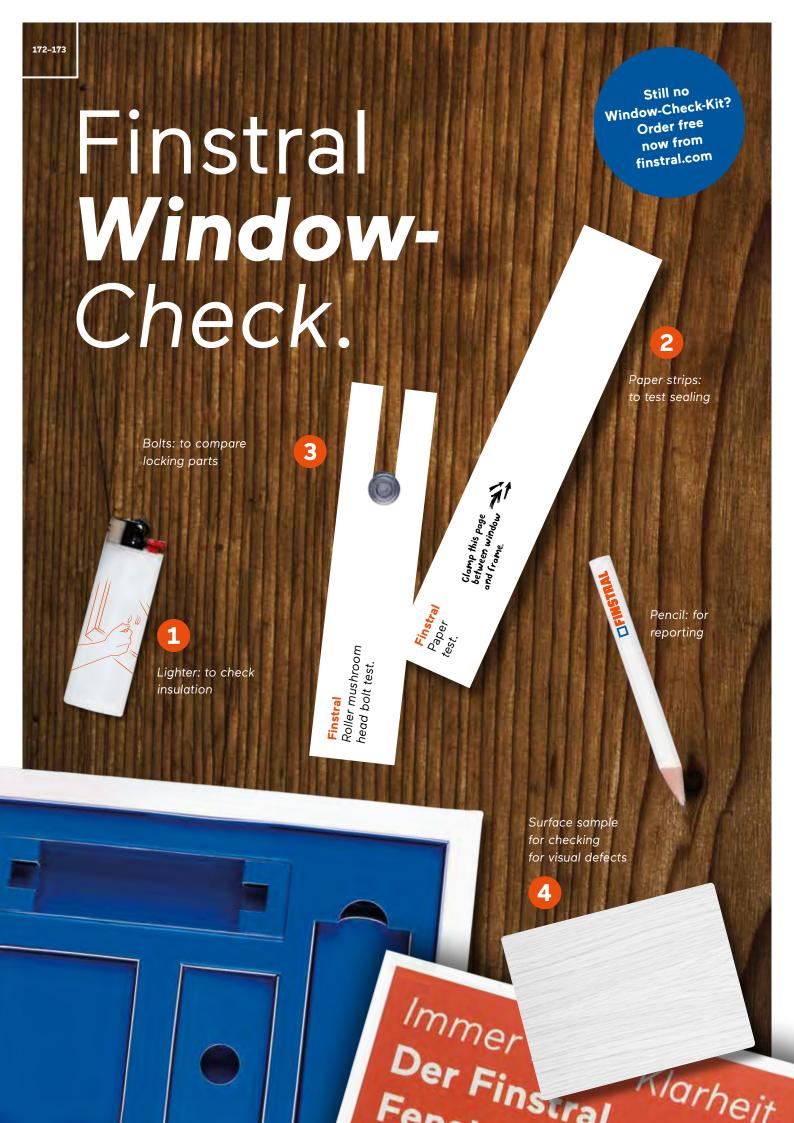
Our windows are always made individually and according to your specifications. We can support you in planning with our knowhow and experience. This means there are practically no limits to the architectural ideas or wishes of your clients.

Expert advice.

Personal contact is particularly important for us as a competent and reliable partner. We have therefore established our own specialist advice service for planners and architects: our trained staff are always there to help you.

Come and see Finstral live.

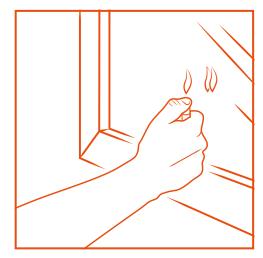
Experience the Finstral promise of "everything from one source" live on site. You can take a behind-the-scenes look during a factory visit, or inspect the effect of our windows when visiting reference objects on site.



Always tightly sealed, quiet, secure and attractive?Take the Finstral window check!

It's easy to check the status of your windows: it is fast, costs nothing and you can do it yourself. The Window-Check-Kit, easily ordered from Finstral, provides you with everything you need. If you don't have a kit at hand, get a lighter and a strip of paper ready – and just follow the illustrations for the other tests.

The lighter test.



Hold a lighter close to the window pane. Look at an angle from the side at the reflection of the flame in the glass.

Are your old windows well insulated? How effective is the protection against noise and heat loss?

Sound insulation

How many flames can you see and how big are the distances between them?

check here

check here

2 flame

→ Single glazing: the sound is only reduced by about 25 decibels: every passing car can clearly be heard.

♦ 4 flames: same distance between the pairs of flames
 → Standard double glazing: the sound is reduced by approx.

30 to 35 decibels: this level of sound insulation is suitable for side roads.

() () 4 flames: unequal distance between the pairs of flames

→ Sound insulation glazing: the sound is reduced by around 40 to 43 decibels: not even main road noise can be heard.

Heat insulation

How many flames can you see and in what colours?

2 flames of one colour

→ Single glazing: your windows are over 40 years old and are not insulated. The heat loss is five times greater than for modern windows with heat-insulating double glazing.

 $\langle \rangle \rangle \langle \rangle \rangle$ 4 flames of one colour

→ Single glazing: your windows are between 20 and 50 years old. The heat loss is three times greater than for modern windows with heat-insulating double glazing.

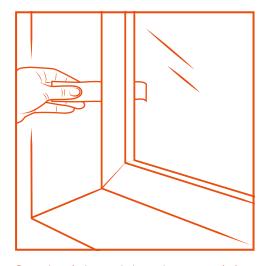
4 flames – one of them red-violet

→ double glazing with heat-insulating coating: your windows are no more than 25 years old and offer good heat insulation. However, with heat-insulating triple glazing you could save even more on energy.

(*) (*) 6 flames – two of them red-violet

→ triple glazing with heat-insulating coating: your windows are less than 20 years old and are optimally insulated. The heat loss is an impressive 40 percent lower than that for heat-insulating double glazing. Your heat insulation is as good as it gets.

The paper test.



Open the window and clamp the paper strip in a place where there is no lock. Now close the window and try to pull out the paper. Try this in several places. Are your old windows sufficiently well-sealed? How effective is the gasket between the window frame and the sash?

Sealing

How easy is it to pull the paper out of the frame?



The paper can easily be pulled out

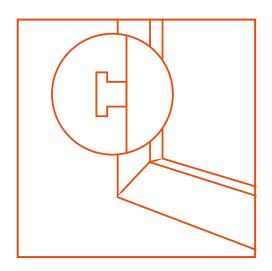
→ Your windows are not well sealed – this reduces comfort and will cost you money: valuable heating energy is going up in smoke outside, while the continuous air draught is unpleasant and drives up your heating costs. A possible cause could be hardened or even no gaskets.



The paper tears or distends when you pull it out

→ Your window gaskets sit and work well all around: cold air stays out and warm air stays in. That's not only good for the living climate, it also has a positive effect on heating costs.

The roller mushroom head bolt test.



Pick up the paper strip that has a small roller mushroom head bolt in it. Now compare it with the bolts and locking parts on your window. Are your old windows burglar-proof? How fast could you prise them open? And how easy are they to operate?

Safety and user comfort

How many bolts and locking parts can you find?

Bolts with no mushroom head shape

→ No protection: your window can be prised open in 10 seconds. If the bolt cannot be turned on its own axis like the roller mushroom head bolt in the example, it will be difficult to operate the handle.

At least two roller mushroom head bolts

→ Basic burglary protection: the modern standard is for two roller mushroom head bolts with solid security locks. This combination reliably locks the windows and makes it difficult to prise them open.

Multi-locking and safety glazing

→ High burglary protection: for a window of typical size, up to nine locks and solidly bonded laminated safety glazing will provide maximum security. Secured in this way, burglary is almost impossible.

check here









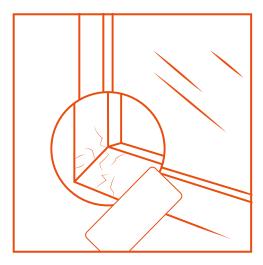






check here

The material test.



Pick up the material sample included – a surface can look just as perfect as this. How do your windows compare?

Are your old window frames still attractive? How weathered is the material? Is the paint peeling? Are there condensation marks?

The appearance of the window.

Does your window have visible defects?



Peeling paint and cracks

→ If wooden windows are not regularly sanded and painted or glazed, the wind and weather will attack the material.

The paint peels off, with cracks and rotting the result.



Condensation

→ The poorer the insulating effect of the glazing, the colder the glass surface is when compared to room temperature, resulting in the formation of condensation water. This can cause mould and lead to the frame rotting. Regular condensation on an aluminium frame is a sign that it is poorly insulated.



Well-maintained

→ No paint is peeling off owing to the weather and there are no rotten or mouldy spots. The surface is well maintained and thus largely well sealed.

Finally, see clearly.

The report on your Window-Check: which colour means what?



Take action now!

Have you checked dark red – once or even more than once? Then it is high time to act: your windows are old, do not meet current quality standards and potentially pose a real security risk.



Modern, better sealed windows mean more living quality, more security and lower heating costs. Your windows may be functional, but there is plenty of room for improvement, especially in terms of sealing and burglary

There is still something to be done!

protection.

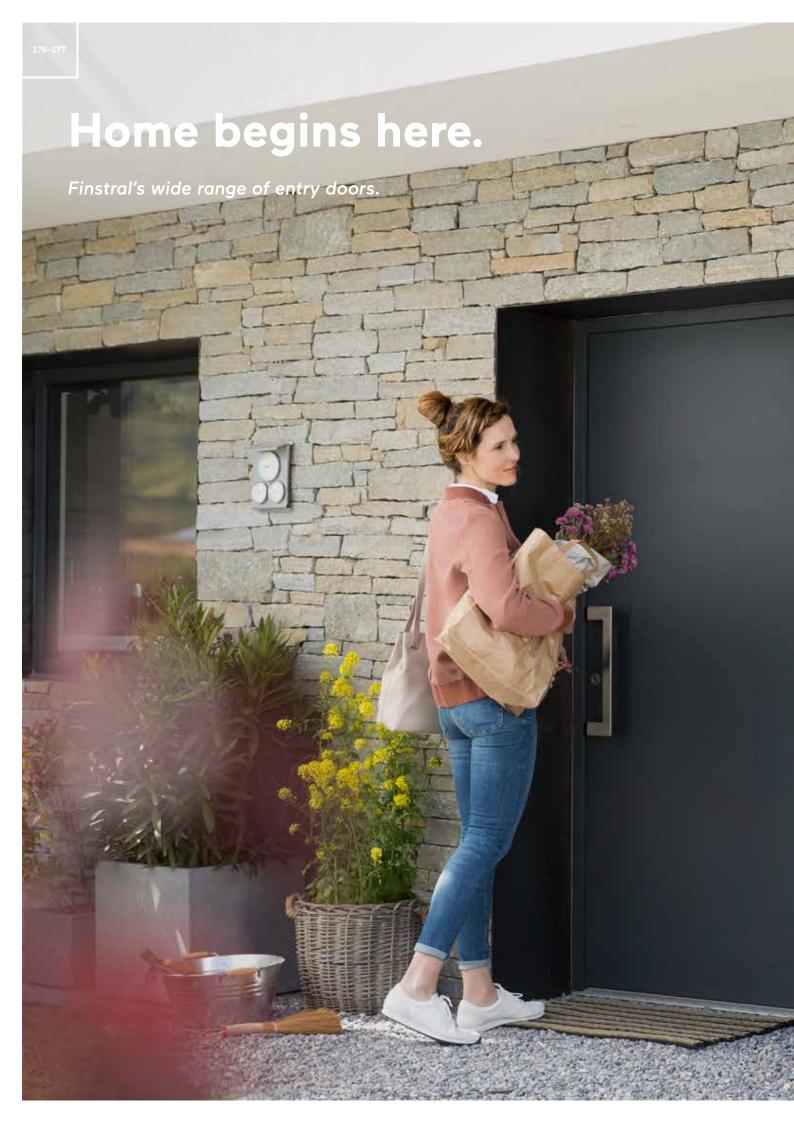
Are you looking for something better?

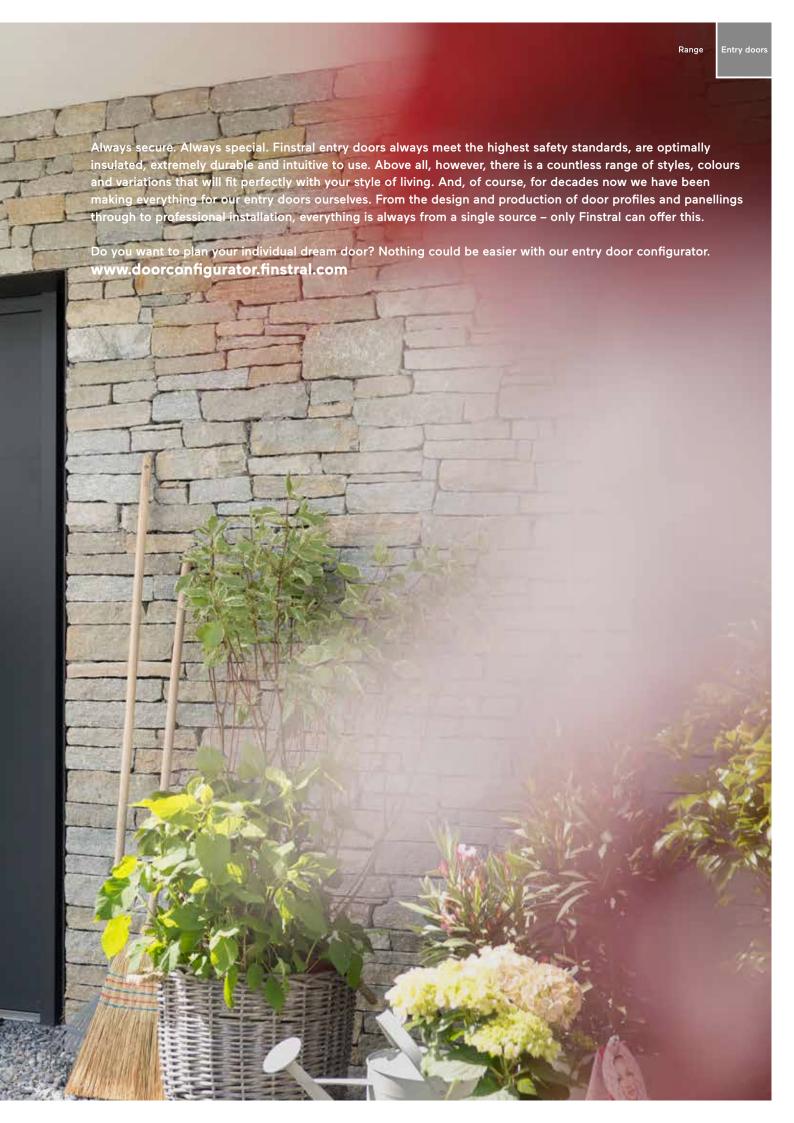
Your windows meet current standards – but of course things could be better. Would you like more comfort? Or are you dissatisfied with how your windows look? Then you already have two good reasons to think of replacing them.

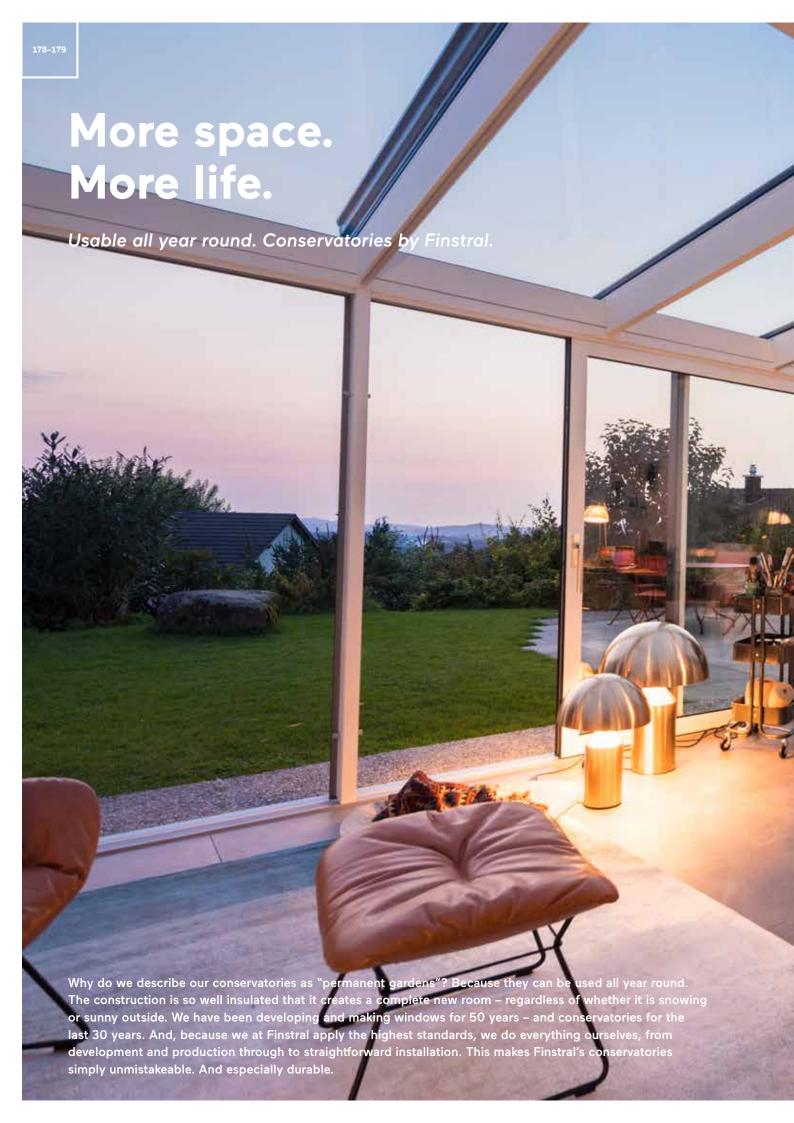


You now know what state your windows are in. And you want answers to many questions:

How leaky in fact are my windows? When do old windows become a serious security risk? What are the arguments for or against replacement? How quickly and cleanly can they be replaced? And, of course: what can I do now? It's easy – take the next step: get competent advice for – and in – your house! Our Finstral Profi-Check offers you both. We come to you, check your windows, answer your questions and advise you. Free of charge and with no obligation.









Since 1969: always at your side.







What makes Finstral so special? It's very simple: everything is done in-house. No matter if you are looking for a conservatory, a window or an entry door, we do everything ourselves. From the development of profiles through to in-house production and installation. Finstral is a Europe-wide window manufacturer with 1,400 employees and 1,000 specialist dealers in 14 countries. To this day the family business is headquartered in Unterinn, near Bozen. We develop and build window, conservatory and door systems at our own 14 production sites, in countless variants. But always with PVC at the core.

A film portrait of our company: finstral.com/movie

Always everything from a single source.

How many major steps does a window go through before it is installed in your home? Six! How do we know this? Because we make everything ourselves.



\rightarrow 1. Development

To make sure perfect quality is always guaranteed, from the very outset everything is always from a single source – from the PVC mixture through to the production of insulation glass. And we also handle the development of the system ourselves, drawing on skills from production, sales and installation. This means perfectly matched window systems in terms of form, function or colour – and constantly new, innovative products that meet the highest quality standards.



→ 2. Profile manufacturing

Profiles? We make our own. This gives us full freedom of design for colours and finishes, meaning we can provide you with our PVC profiles for various white and grey tones – always through-dyed. Embossing and satin finishes are applied directly to the profile, making our surfaces unique, high-quality and durable.



→ 3. Insulation glass production

We – clearly – also wanted to focus on making our own glass. We manufacture insulation glass and toughened safety glass to the highest quality standards in our modern production facilities. Only in this way will the glass be sufficiently stable for all requirements. Only after several internal and external quality controls will we create composite insulation glass from up to three panes.



\rightarrow 4. Window production

Finstral has been making windows for 50 years now. Our high quality standards have not however changed. To make sure your window is always perfect, we weld four matching profile bars to one window frame or sash. We then apply the fittings and safety bolts – always individually and according to customer requirements. The window sash and glass are always bonded to form a strong unit with the highest degree of user comfort. The perfect window will leave our factory only after final quality testing.



\rightarrow 6. Installation

Development, production, installation and service – we only offer windows as a complete package. The quality of our installation processes is carefully checked by the Institut für Fenstertechnik (ift) in Rosenheim and only approved according to the strictest criteria. This includes absolute adherence to deadlines, maximum installation quality – and, of course, always a readiness to answer all your questions relating to windows.



→ 5. Logistics

Once production is complete, we deliver the windows from one of the Finstral plants directly to your home – always on the agreed day. For each product there is an individual, digitally controlled production order. This means we can guarantee a delivery reliability rate of 97 percent.



Always everything at a glance.

Is my perfect window available in my favourite colour?

Can I choose between elegant aluminium for the outside and cosy real wood for the inside? And can my FIN-Vista window wall be combined with a Nova glass dummy mullion for maximum transparency? With over 100 window variants in four materials and countless colours, Finstral offers the widest window range in Europe. The following pages are intended to give you an overview. Windows, sliding and folding doors, window walls – the entire Finstral range in one table.

- Product data sheets
- Texts for invitations to tender
- CAD data
- Colour and material samples
 can all be found at www.finstral.com/range.







	1		PVC windows		ı	PVC-aluminium window	vs
Material	Exterior		PVC			Aluminium	
	Centre		PVC			PVC	
	Interior		PVC			PVC	
System construction		FIN-Window (77 mm)	FIN-Window (90 mm)	FIN-Window (124 mm)	FIN-Window (77+8mm)	FIN-Window (90+8mm)	FIN-Window (124+3mm
lepth)			U _w single-sash (W/m²K) in dou		uble-sash (W/m²K) in double/tr 	iple glazing with dummy mullic	n
rame	Classic-line	FIN-Window	FIN-Window	FIN-Window	FIN-Window	FIN-Window	FIN-Window
nape / ash ariant		Classic-line PVC-PVC	Classic-line PVC-PVC	Classic-line PVC-PVC	Classic-line aluminium-PVC	Classic-line C&N aluminium-PVC	Classic-line aluminium-PVC
		1.2 / 0.75 1.2 / 0.85	1.1 / 0.73 1.2 / 0.81	1.2 / 0.75 1.2 / 0.85	1.2 / 0.75 1.2 / 0.85	1.1 / 0.73 1.2 / 0.81	1.2 / 0.75 1.2 / 0.85
		32 (-2;-6) / 45 (-1;-3)	32 (-2;-6) / 45 (-1;-3)	32 (-2;-6) / 45 (-1;-3)	32 (-2;-6) / 45 (-1;-3)	32 (-2;-6) / 45 (-1;-3)	32 (-2;-6) / 45 (-1;-3)
	Slim-line	FIN-Window Slim-line PVC-PVC	FIN-Window Slim-line PVC-PVC	FIN-Window Slim-line PVC-PVC	FIN-Window Slim-line aluminium-PVC	FIN-Window Slim-line C&N aluminium-PVC	FIN-Window Slim-line aluminium-PVC
		1.2 / 0.74 1.2 / 0.84	1.2 / 0.75 1.2 / 0.84	1.2 / 0.74 1.2 / 0.84	1.2 / 0.74 1.2 / 0.84	1.2 / 0.75 1.2 / 0.84	1.2 / 0.74
		32 (-2;-6) / 46 (-2;-5)	32 (-2;-6) / 46 (-2;-5)	32 (-2;-6) / 46 (-2;-5)	32 (-2;-6) / 46 (-2;-5)	32 (-2;-6) / 46 (-2;-5)	32 (-2;-6) / 46 (-2;-5)
	Slim-line Twin	FIN-Window Slim-line Twin PVC-PVC	FIN-Window Slim-line Twin PVC-PVC	FIN-Window Slim-line Twin PVC-PVC	FIN-Window Slim-line Twin aluminium-PVC	FIN-Window Slim-line Twin C&N aluminium-PVC	FIN-Window Slim-line Twin aluminium-PVC
		1.0 / 0.80 1.1 / 0.88	0.99 / 0.78 1.0 / 0.86	1.0 / 0.79 1.0 / 0.87	1.0 / 0.80 1.1 / 0.88	0.99 / 0.78 1.0 / 0.86	1.0 / 0.79 1.0 / 0.87
		42 (-3;-9) / 47 (-2;-5)	42 (-3;-9) / 47 (-2;-5)	42 (-3;-9) / 47 (-2;-5)	42 (-3;-9) / 47 (-2;-5)	42 (-3;-9) / 47 (-2;-5)	42 (-3;-9) / 47 (-2;-5)
	Slim-line Cristal	FIN-Window Slim-line Cristal PVC-PVC	FIN-Window Slim-line Cristal PVC-PVC	FIN-Window Slim-line Cristal PVC-PVC	FIN-Window Slim-line Cristal	FIN-Window Slim-line Cristal C&N aluminium-PVC	FIN-Window Slim-line Cristal aluminium-PVC
		-/0.80 -/0.92	- / 0.78 - / 0.89	- / 0.78 - / 0.92	- / 0.80 - / 0.92	- / 0.78 - / 0.89	- / 0.78 - / 0.92
		39 (-2;-6) / 42 (-2;-5)		39 (-2;-6) / 42 (-2;-5)	39 (-2;-6) / 42 (-2;-5)	39 (-2;-6) / 42 (-2;-5)	39 (-2;-6) / 42 (-2;-5)
	Slim-line Cristal Twin	FIN-Window Slim-line Cristal Twin PVC-PVC	FIN-Window Slim-line Cristal Twin PVC-PVC	FIN-Window Slim-line Cristal Twin PVC-PVC	FIN-Window Slim-line Cristal Twin	FIN-Window Slim-line Cristal Twin C&N aluminium-PVC	FIN-Window Slim-line Cristal Twin
		1.0 / 0.83 1.1 / 0.96	1.1 / 0.80 1.1 / 0.93	1.0 / 0.83 1.1 / 0.96	1.0 / 0.83 1.1 / 0.96	1.1 / 0.80 1.1 / 0.93	1.0 / 0.83 1.1 / 0.96
	Step-line	FIN-Window Step-line PVC-PVC	FIN-Window Step-line PVC-PVC	FIN-Window Step-line PVC-PVC	FIN-Window Step-line aluminium-PVC	FIN-Window Step-line C&N aluminium-PVC	FIN-Window Step-line aluminium-PVC
		1.2 / 0.75 1.2 / 0.85	1.1 / 0.73 1.2 / 0.81	1.2 / 0.75 1.2 / 0.85	1.2 / 0.75 1.2 / 0.85	1.1 / 0.73	1.2 / 0.75 1.2 / 0.85
		32 (-2;-6) / 46 (-2;-5)	32 (-2;-6) / 46 (-2;-5)	32 (-2;-6) / 46 (-2;-5)	32 (-2;-6) / 46 (-2;-5)	32 (-2;-6) / 46 (-2;-5)	32 (-2;-6) / 46 (-2;-5)
	Ferro-line	_			_		
	Nova-line	FIN-Window Nova-line PVC-PVC	FIN-Window Nova-line PVC-PVC	FIN-Window Nova-line PVC-PVC	FIN-Window Nova-line aluminium-PVC	FIN-Window Nova-line C&N aluminium-PVC	FIN-Window Nova-line aluminium-PVC
		1.2 / 0.78 1.2 / 0.85	1.2 / 0.78 1.2 / 0.86	1.2 / 0.78 1.2 / 0.86	1.2 / 0.78 1.2 / 0.85	1.2 / 0.78 1.2 / 0.86	1.2 / 0.78 1.2 / 0.86
		36 (-2;-5) / 45 (-1;-3)	36 (-2;-5) / 45 (-1;-3)	36 (-2;-5) / 45 (-1;-3)	36 (-2;-5) / 45 (-1;-3)	36 (-2;-5) / 45 (-1;-3)	36 (-2;-5) / 45 (-1;-3)
	Nova-line Plus	FIN-Window Nova-line Plus PVC-PVC	FIN-Window Nova-line Plus PVC-PVC	FIN-Window Nova-line Plus PVC-PVC	FIN-Window Nova-line Plus aluminium-PVC	FIN-Window Nova-line Plus C&N aluminium-PVC	FIN-Window Nova-line Plus aluminium-PVC
		- / 0.73 - / 0.83	- / 0.71 - / 0.79	- / 0.74 - / 0.83	- / 0.73 - / 0.83	- / 0.71 - / 0.79	- / 0.74 - / 0.83
		35 (-2; -6) / 44 (-2; -5)	35 (-2; -6) / 44 (-2; -5)	35 (-2; -6) / 44 (-2; -5)	35 (-2; -6) / 44 (-2; -5)	35 (-2; -6) / 44 (-2; -5)	35 (-2; -6) / 44 (-2; -5)
	Nova-line Twin	FIN-Window Nova-line Twin PVC-PVC	FIN-Window Nova-line Twin PVC-PVC	FIN-Window Nova-line Twin PVC-PVC	FIN-Window Nova-line Twin aluminium-PVC	FIN-Window Nova-line Twin C&N aluminium-PVC	FIN-Window Nova-line Twin aluminium-PVC
		1.0 / 0.90 1.1 / 0.98	1.0 / 0.87 1.1 / 0.94	1.0 / 0.90 1.1 / 0.98	1.1 / 0.90 1.1 / 0.98	1.0 / 0.87 1.1 / 0.94	1.0 / 0.90 1.1 / 0.98
		40 (-2;-7) / 44 (-2;-7)	40 (-2;-7) / 44 (-2;-7)	40 (-2;-7) / 44 (-2;-7)	40 (-2;-7) / 44 (-2;-7)	40 (-2;-7) / 44 (-2;-7)	40 (-2;-7) / 44 (-2;-7)
	Nova-line Cristal Twin	FIN-Window Nova-line Cristal Twin PVC-PVC	FIN-Window Nova-line Cristal Twin PVC-PVC	FIN-Window Nova-line Cristal Twin PVC-PVC	FIN-Window Nova-line Cristal Twin aluminium-PVC	FIN-Window Nova-line Cristal Twin C&N aluminium-PVC	FIN-Window Nova-line Cristal Twin aluminium-PVC
		1.0 / 0.91 1.2 / 1.1	1.1 / 0.89 1.2 / 1.0	1.1 / 0.89 1.2 / 1.0	1.0 / 0.91 1.2 / 1.1	1.1 / 0.89 1.2 / 1.0	1.1 / 0.89 1.2 / 1.0
tection	Burglary prevention standards	4 security locking points	4 security locking points	4 security locking points			
lour /	Exterior	10 PVC colours	10 PVC colours	10 PVC colours	243 aluminium colours	243 aluminium colours	243 aluminium colours
rface	Interior	10 PVC colours	10 PVC colours	10 PVC colours	10 PVC colours	10 PVC colours	10 PVC colours

aluminium windows	wood-alu	minium windows	wood-PVC windows	ForRes-aluminium windows
Aluminium		Aluminium	PVC	Aluminium
PVC		PVC	PVC	PVC
Aluminium		Wood	Wood	ForRes
IN-Project (78 mm*/88 mm**)	FIN-Project (78 mm*/95 mm**)	FIN-Ligna (92 mm)	FIN-Ligna (84 mm)	FIN-Project (95 mm)
	U _w single-sash (W/m²K) in double		in double/triple glazing with dummy mullion	
N-Project	FIN-Project	R _w standard (dB) / R _w best value (d	B)	FIN-Project
Classic-line	Classic-line			Classic-line
lluminium-aluminium	aluminium-aluminium 1.2 / 0.77			aluminium-aluminium 1.2 / 0.77
2 / 0.77	1.2 / 0.77			38 (-2;-6) / 44 (-1;-4)
IN-Project	FIN-Project	FIN-Ligna	FIN-Ligna	FIN-Project
ilim-line Iluminium-aluminium	Slim-line aluminium-wood	Slim-line aluminium-wood	Slim-line PVC-wood	Slim-line aluminium-ForRes
.2 / 0.77 1.3 / 0.91	1.2 / 0.77 1.3 / 0.91	1.2 / 0.82 1.3 / 0.94	1.2 / 0.82 1.3 / 0.94	1.2 / 0.77 1.3 / 0.91
8 (-2;-6) / 44 (-1;-4)				
IN-Project Slim-line Twin	FIN-Project Slim-line Twin	FIN-Ligna Slim-line Twin	FIN-Ligna Slim-line Twin	FIN-Project Slim-line Twin
.1 / 0.92	aluminium-wood 1.1 / 0.92	aluminium-wood 1.1 / 0.86	PVC-wood 1.1 / 0.86	aluminium-ForRes 1.1 / 0.92
8 (-3;-8) / 45 (-1;-6)		npd		
~ (~, ~) / ~~ (~±,~~)		FIN-Ligna Slim-line Cristal	FIN-Ligna Slim-line Cristal	30 (3, 3) / 43 (3, 2)
		aluminium-wood - / 0.80 - / -	PVC-wood - / 0.80 - / -	
		- / 0.80 - / - npd		
IN-Project	FIN-Project	при	iipu	FIN-Project
ilim-line Cristal Twin	Slim-line Cristal Twin			Slim-line Cristal Twin aluminium-ForRes
/1.0 -/1.1	-/1.0 -/1.1			-/1.0 -/1.1
10 (-3;-10) / 42 (-3;-9)	40 (-3;-10) / 42 (-3;-9)			40 (-3;-10) / 42 (-3;-9)
IN-Project tep-line	FIN-Project Step-line			FIN-Project Step-line
tep-line Iuminium-aluminium	Step-line aluminium-wood			Step-line aluminium-ForRes
.2/- 1.3/-	1.2 / - 1.3 / -			1.2 /- 1.3 /-
8 (-2;-6) / 40 (-3;-8)	38 (-2;-6) / 40 (-3;-8)			38 (-2;-6) / 40 (-3;-8)
IN-Project Step-line Cristal	FIN-Project Step-line Cristal			FIN-Project Step-line Cristal
luminium-aluminium	aluminium-wood			aluminium-ForRes
/ 0.82 - / 0.98	- / 0.82 - / 0.98			- / 0.82 - / 0.98
10 (-2;-6) / 42 (-2;-6)	npd			npd
iN-Project erro-line Iluminium-aluminium	FIN-Project Ferro-line aluminium-wood			FIN-Project Ferro-line aluminium-ForRes
.2 / 0.77 1.3 / 0.91	1.2 / 0.77 1.3 / 0.91			1.2 / 0.77 1.3 / 0.91
8 (-2;-6) / 44 (-1;-4)	38 (-2;-6) / 44 (-1;-4)			38 (-2;-6) / 44 (-1;-4)
IN-Project Iova-line Iluminium-aluminium	FIN-Project Nova-line aluminium-wood			
.2 / 0.82 1.2 / 0.94	1.2 / 0.82			
88 (-2;-6) / 41 (-3;-7)	38 (-2;-6) / 41 (-3;-7)			
IN-Project lova-line Plus luminium-aluminium	FIN-Project Nova-line Plus aluminium-wood			FIN-Project Nova-line Plus aluminium-ForRes
/ 0.77 - / 0.91	- / 0.77 - / 0.91	·····		- / 0.77 - / 0.91
6 (-2;-6) / 43 (-2;-6)	36 (-2;-6) / 43 (-2;-6)			36 (-2;-6) / 43 (-2;-6)
IN-Project Iova-line Twin Iuminium-aluminium	FIN-Project Nova-line Twin aluminium-wood	FIN-Ligna Nova-line Twin aluminium-wood	FIN-Ligna Nova-line Twin PVC-wood	FIN-Project Nova-line Twin aluminium-ForRes
.1 / 0.9 1.2 / 1.0	1.1 / 0.9 1.2 / 1.0	1.1 / 0.88 1.2 / 1.0	1.1 / 0.88 1.2 / 1.0	1.1 / 0.9 1.2 / 1.0
0 (-2;-8) / 45 (-3;-10)	40 (-2;-8) / 45 (-3;-10)	npd	npd	40 (-2;-8) / 45 (-3;-10)
IN-Project lova-line Cristal Twin luminium-aluminium	FIN-Project Nova-line Cristal Twin aluminium-wood			FIN-Project Nova-line Cristal Twin aluminium-ForRes
/ 0.98 - / 1.2	-/0.98 -/1.2	·····		-/0.98 -/1.2
pd	npd			npd
Peripheral security locking points nax. every 850 mm	Peripheral security locking points max. every 850 mm	Peripheral security locking points max. every 850 mm	Peripheral security locking points max. every 850 mm	Peripheral security locking points max. every 850 mm
	243 aluminium colours	243 aluminium colours	10 PVC colours	243 aluminium colours
43 aluminium colours	245 didifilliani colodis	243 aluminium colours	10 FVC Colours	E43 didiffillidiff colodis

		sliding doo	ers and windows	lift-and-slide doors and windows			
Material	Exterior Centre	PVC PVC	Aluminium PVC	PVC PVC	Aluminium PVC	Aluminium PVC	
System	Interior	PVC FIN-Scroll (144 mm)	PVC FIN-Scroll (156 mm)	PVC FIN-Slide (144 mm)	PVC FIN-Slide (156 mm)	Aluminium FIN-Slide (168 mm)	
(construction depth)			ingle-sash (W/m²K) in double/triple g	lazing U_w double-sash (W/m²K) in double/triple glazing with dumm	· · · · · · · · · · · · · · · · · · ·	
Frame	Classic line			$R_{\rm w}$ standard (dB) / $R_{\rm w}$ best value (dB)	dB)		
shape / sash	Classic-line						
variant							
	Slim-line	FIN-Scroll	FIN-Scroll				
		Slim-line PVC-PVC	Slim-line aluminium-PVC				
		1.3 / 1.1 1.3 / 1.2					
	Slim-line Twin	npd .	npd	_			
	Slim-line Cristal				FIN-Slide	FIN-Slide	
					Slim-line Cristal aluminium-PVC	Slim-line Cristal aluminium-aluminium	
					1.3 / 0.91	1.3 / 0.91 1.5 / 1.1 npd	
	Slim-line Cristal Twin				·	·	
	Step-line	-		FIN-Slide Step-line	FIN-Slide Step-line	FIN-Slide Step-line	
				PVC-PVC 1.3 / 0.85 1.3 / 0.95	aluminium-PVC	aluminium-aluminium	
				npd / 43 (-1;-5)	1.3 / 0.85	1.4 / 0.95 1.5 / 1.1 npd	
	Step-line Cristal						
				_			
	Ferro-line						
	Nova-line						
	Name I'm Plan					FIN-Slide	
	Nova-line Plus					Nova-line Plus aluminium-aluminium	
						1.3 / 0.91 1.5 / 1.1	
	Nova-line Twin	-				npd	
	Nova-line Plus Cristal					FIN-Slide	
						Nova-line Plus Cristal aluminium-aluminium	
						1.3 / 0.91 1.5 / 1.1	
Protection	Burglary prevention	min. 2 security locking points	min. 2 security locking points	min. 2 security locking points	min. 2 security locking points	min. 2 security locking points	
Colour /	standards 	10 PVC colours	10 PVC colours	10 PVC colours	243 aluminium colours	243 aluminium colours	
surface	Interior	10 PVC colours	10 PVC colours	10 PVC colours	10 PVC colours	243 aluminium colours	

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lift-and-slide doors and windows

folding doors

window walls

Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC
Wood	ForRes	Aluminium	Wood	PVC	Aluminium	Wood	ForRes
FIN-Slide (169 mm)	FIN-Slide (169 mm)	FIN-Fold (88 mm)	FIN-Fold (97mm)	FIN-Vista (from 156 mm to 193 mm)	FIN-Vista (from	169 mm to 193 mm)	
	U _w multi-sash (W/m²K) in double/triple glazing						
	R _w standard (dB) / R _w best value (dB)						

FIN-Slide Slim-line aluminium-wood		FIN-Slide Slim-line aluminium-ForRes		FIN-Fold Slim-line aluminium-aluminium	FIN-Fold Slim-line aluminium-wood	
1.3 / 0.91	1.5 / 1.1	1.3 / 0.91		1.4 / 1.3	1.4 / 1.3	
npd		npd	•••••	npd	npd	

FIN-Slide Slim-line Cristal aluminium-wood		FIN-Slide Slim-line Cristal aluminium-ForRes		
- / 0.82	-/1.0	- / 0.82	-/1.0	
npd		npd		

FIN-Vista

Modular mullion-transom system
for window walls that can be combined with
all windows, sliding and folding doors

FIN-Slide Nova-line P		FIN-Slide Nova-line P aluminium-		FIN-Fold Nova-line Plus aluminium-aluminium	FIN-Fold Nova-line Plus aluminium-wood
1.3 / 0.82	1.5 / 1.1	1.3 / 0.82	1.5 / 1.1	1.4 / 0.94	1.4 / 0.97
npd	••••	npd		npd	npd

min. 2 security locking points	min. 2 security locking points	min. 2 security locking points	min. 2 security locking points				
243 aluminium colours	243 aluminium colours	243 aluminium colours	243 aluminium colours	243 aluminium colours	243 aluminium colours	243 aluminium colours	243 aluminium colours
6 classic colours in soft wood, 8 modern colours in hard wood	6 ForRes colours	243 aluminium colours	6 classic colours in soft wood, 8 modern colours in hard wood	10 PVC colours	243 aluminium colours	6 classic colours in soft wood, 8 modern colours in hard wood	

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