

WERU

THAT'S THE WINDOW FOR ME





YOUR LIFE. YOUR LIFESTYLE. YOUR WINDOW.

If the eyes are windows to our soul, our windows are our eyes to the world. It therefore pays to look very carefully when choosing your personal window. We can help you do this with many years of experience, customised manufacturing and this window catalogue.

Discover window systems with a unique capability to adapt to your requirements. Select features and innovative window technologies that are precisely tailored to your individual living requirements and experience a competent service that also takes your living situation into account.

We aim to provide outstanding quality and top-rate advice, and for you this means long-lasting pleasure from windows that are manufactured individually to meet your expectations. If you would like to experience the benefits of this leading window brand directly, you can drop in at one of our 750 Weru specialist dealers.

WERU. WINDOWS FOR LIFE.

WERU

THAT'S THE WINDOW
FOR ME

AFINO-art

My bespoke window design



AFINO-top

My window my design



AFINO-tec

My cleverly combined window



AFINO-one

My designed just for me window



CASTELLO

The all-in-one option

SERENO

The simply ingenious solution

The systematic route to the window of your choice

Some window purchasers may be looking for a reliable all-rounder, and others may be looking for more flexibility or a special design. Others may want to include coloured accents or may value innovative technology. Then there are those who are looking for an exceptionally slender window that satisfies the most exacting architectural design requirements. But they all have one thing in common: they will all find the window they are looking for thanks to the diversity of Weru window systems.

Bespoke architecture window

- Blends framelessly with the facade
- Slender design guarantees that plenty of natural light floods in
- Facilitates architectural design solutions



Bespoke Alumix window

- Unique colour effects possible
- Even more weather resistant thanks to the intelligent combination of aluminium and PVCu
- High-quality aluminium appearance



Bespoke high-tech window

- Exceptionally large glazed areas are possible thanks to high-tech material
- State-of-the-art GFP technology guarantees outstanding stability and lasting functionality



Bespoke windows

- Comprehensive range of shapes, colours and functions, for windows tailored to suit you
- Top quality materials and precision craftsmanship guarantee high stability, tightness and ease of operation, even after years of use
- Heat-optimised design ensures maximum energy efficiency values



Versatile all-round window

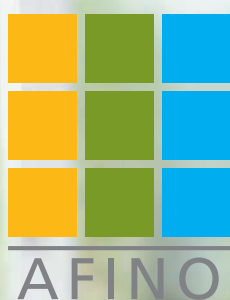
- Outstanding quality in tried and proven technology
- Broad product range satisfies every requirement
- Reliable classic for refurbishments and new buildings



Reliable quality window

- Proven in daily use
- For price-aware discerning buyers
- Sound functionality





BESPOKE PREMIUM WINDOWS

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Enhanced living atmosphere and feeling of well-being

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A modern interior scene featuring a large window with a view of greenery outside. A white chair is visible in the foreground, and a spherical light fixture with many small lights is hanging from the ceiling. The overall atmosphere is bright and clean.

BESPOKE
PREMIUM
WINDOWS



AFINO – IT'S ALL ABOUT ATTITUDE



Everybody should get the window that suits them. Nothing more and nothing less. This might sound like stating the obvious at first, but on closer analysis, it is actually a small revolution in the window sector. While others have been striving for just one perfect window, we have made it our goal to achieve the most diverse range of windows possible. The result is the AFINO windows, which come in four basic designs that allow you to pursue your own entirely individual goals. Most notable however, is the large number of technical innovations that feature in the AFINO window, which you can combine however you like to suit your requirements.



AFINO-one:
the bespoke window
(for more information
see p. 14 onwards)



AFINO-tec:
the bespoke GRP
high-tech window
(for more information
see p. 18 onwards)



AFINO-top:
the bespoke Alumix
window (for more
information see p. 22
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AFINO-art:
the bespoke
architectural window
(for more information
see p. 26 onwards)

AFINO-package concept:
All AFINO windows can be equipped with individual packages so that they meet your particular requirements for security, energy efficiency and comfort (for more information on the Protect, Energy and Comfort packages, see p. 30 onwards)

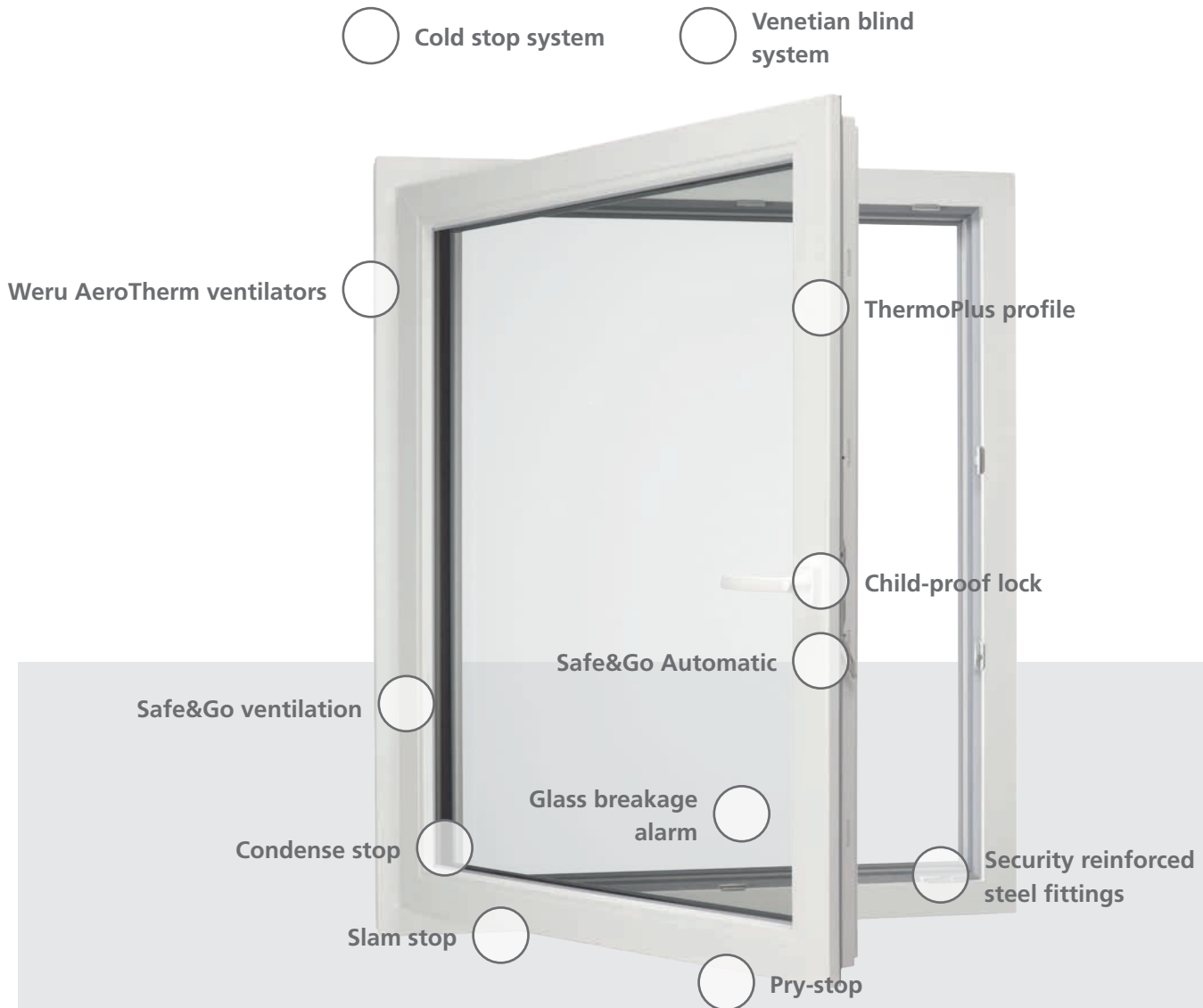
The AFINO System

It's good to be prepared for everything



AFINO

Is there anything that beats unique technological innovation? Yes! Unique technological innovation that you can freely configure according to your own individual requirements. As the basis, we offer an innovative window construction which, thanks to our many years of experience in the development, production and assembly of quality windows, combines the best solutions for PVCu window requirements. The result: a perfect interplay of sash and frame, profile and glazing, installation depth and insulation properties and of your requirements and our innovations.



This speaks volumes about AFINO quality

- Best possible permanent dimensional stability even after many years
- Easy-to-clean rebate seal or insulation-optimised centre seal – the choice is yours
- Maximum window sizes thanks to GFP high-tech material and steel reinforcement

The Weru window compass



Fast configuration according to individual requirements instead of a long fruitless search. The AFINO windows and package combinations that exactly match your needs are just a few clicks away. Click www.fenster-kompass.de now



Weru, with its sashes made from GFP high-tech material, can achieve PVCu window sizes that none of its competitors can match. The unique material mix of PVC and steel reinforcement in the frame and GFP high-tech material with steel reinforcement in the sash gives your window lasting dimensional stability. It also gives you excellent everlasting window views.

AFINO window – Highlights in the series

All technical innovations at a glance



AFINO

No matter whether you need special security hardware, innovative surveillance elements or effective detailing to further improve the insulation properties, or innovative ventilation systems or special system enhancements that turn your window into a comprehensive solution with blackout capability. AFINO windows give you the flexibility and choice. We have innovations that satisfy every requirement.



Pry-stop

- Enhances burglary deterrence with special mushroom cam and hammer head locks that work in opposing directions to stop the window casement being pushed out of the locking mechanism
- Only from Weru



Security reinforced steel fittings

- Multiple locks bolted into special steel reinforcement elements maximise the window's resistance to being pried out
- Ensures additional loading capability and stability of frame and window as load-bearing components are generally bolted into the steel



Child lock

- Protects against unwanted opening at the hands of children
- The special tilt-before-turn mechanism ensures that children can only tilt the window and not open it
- It can only be opened with a key



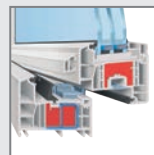
Slam stop

- The sash is fixed to prevent it from slamming shut during intermittent ventilation
- Variably limits the ventilation opening of the window



Glass break alarm

- Loud alarm sounds when a pane breaks
- Deters attempted break-ins
- Prevents false alarm with dual sensor mechanism (vibration and frequency)



ThermoPlus profile

- Optimises the thermal efficiency of the profile system due to ingenious chamber geometry in combination with thermal insulation foam
- Improves energy efficiency due to all-round foam filling, also in corner area of profile
- Ensures feeling of well-being with consistent glass and surface temperature



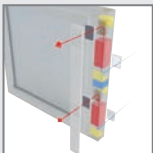
Safe&Go ventilation

- Permits room ventilation with the windows locked through special hardware, which parks the window sash parallel to the frame with a ventilation gap of 6 mm
- All-round ventilation gap guarantees continuous basic ventilation without draught effects
- Special hardware ensures enhanced burglary deterrence, even in the ventilation position, up to security class RC 2



Safe&Go Automatic

- Automatic room ventilation due to motorised parallel parking hardware that moves the window into the ventilation position
- Sensor or time-controlled ventilation programs ensure sufficient ventilation, even if nobody is home



Weru AeroTherm ventilators

- Ensures exchange of air with practically no loss of heat by preheating the incoming air to 17 °C at an outdoor temperature of – 10 °C and a room temperature of 20 °C (= 90 % efficiency)
- Reduces the pollutants in the air by integrated activated carbon filter and optional pollen filter



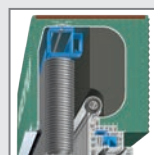
Cold stop box

- External inspection aperture reduces heat loss and cold bridging
- Box is closed on the room side to prevent draughts



Condense stop

- Reduces condensation formation on the pane of glass above the glazing bead due to highly-insulating PVCu glazing spacers
- Warm edge ensures pleasant living climate due to even surface temperature



Venetian blind system

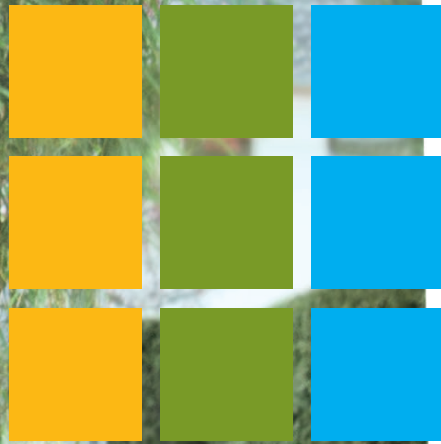
- Control natural daylight as you wish
- External venetian blinds prevents rooms with large window facades becoming overheated
- Visible if mounted directly on the window, or virtually invisible in the facade as a flush-mounted solution
- Venetian blind boxes and windows are perfectly matched to one another

C



AFINO-one

PREMIUM WINDOW



AFINO

MY DESIGNED JUST FOR ME WINDOW

Are the equipment options important to you when you buy a new car? Do you design the interior or your home to suit your personal taste and style? Then AFINO-one is exactly the right window for you. Even the basic version delivers outstanding qualities. You can even step it all up with the flexibly bespoke AFINO packages. This makes AFINO-one the first choice for anyone looking for a bespoke window.

AFINO-one

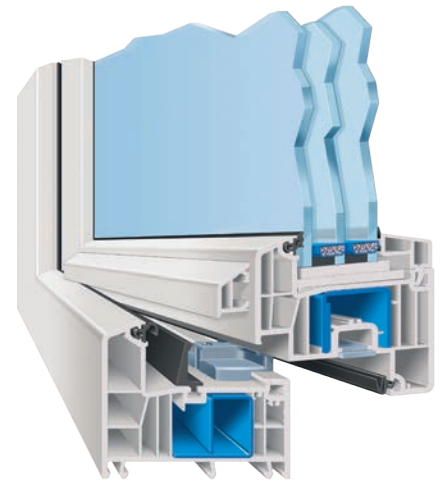
The bespoke window



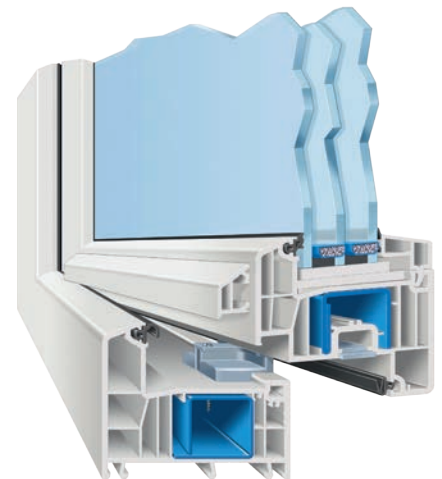
Choosing your window is an important decision. There are two key aspects: individuality and durability. No matter whether white or coloured, square, inclined or round, with glazed parts or mounted Georgian bars: make your dreams come true with AFINO-one windows. Precisely to your personal taste and needs, yet always with outstanding thermal insulation, high stability, durable functionality and tightness.

Technical features of AFINO-one

Profile system	6-chamber-profile Installation depth: 86 mm 2 or 3 seals Frame: PVC profile with general steel stiffening Sash: PVC profile with general steel stiffening
Thermal insulation	Thermal transmission coefficient of window up to $U_w = 0.68 \text{ W}/(\text{m}^2\text{K})$ Thermal transfer coefficient of glazing up to $U_g = 0.4 \text{ W}/(\text{m}^2\text{K})$
Acoustic insulation	Sound insulation value of window up to $R_w = 47 \text{ dB}$
Seals	Fitted EPDM rebate seals (exceptionally weather resistant and highly resilient)
Security	130 kg hinges are a standard feature Standard mushroom cam locks Can be upgraded to security class RC 2 according to DIN EN 1627–1630
Hardware fixing	All security-relevant and load-bearing components are screwed into steel
Maximum sash sizes	Windows 1500 mm x 1550 mm Balcony doors 1200 mm x 2500 mm



AFINO-one MD
(centre sealing system with three seals)



AFINO-one AD
(rebate sealing system with two seals)

AFINO-one

- Comprehensive range of shapes, colours and functions, for windows tailored to suit you
- Top quality materials and precision craftsmanship guarantee high stability, tightness and ease of operation, even after years of use
- Heat-optimised design ensures maximum energy efficiency values



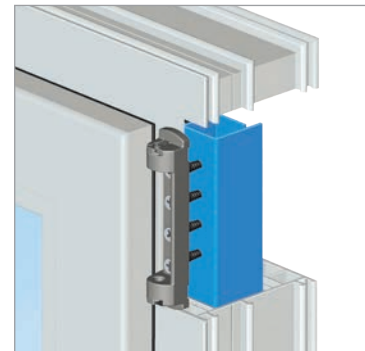
Outstanding energy efficiency

Optimally-matched profile parameters such as installation depth, number of chambers and chamber size ensure the best profile thermal insulation properties. With special Weru insulating glass the windows can achieve heat insulation values up to $U_w = 0.68 \text{ W/(m}^2\text{K)}$. This reduces your energy consumption and cuts heating costs.



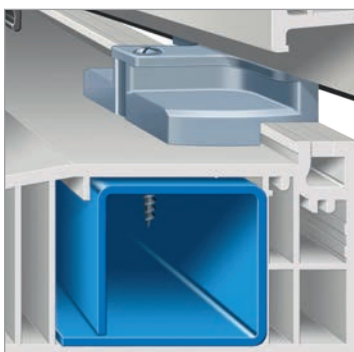
Unlimited colours

You may wish to incorporate colourful accents, or prefer to adopt a classic look to reflect your lifestyle. The choice is yours – in addition to 14 mono-texture and 10 wood texture colour shades, there are some 200 RAL classic colour shades to choose from. For more detailed information about your design options see page 70.



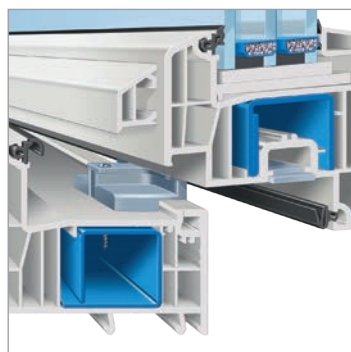
High functional reliability

With AFINO-one, load-bearing hardware components such as hinges are bolted into the steel at several points. This ensures enduring functionality and high durability for your window, even when using extremely heavy triple glazing, and also ensures smooth operation.



More stability and burglary protection

The all-round steel reinforcement in the frame and in the sash of AFINO-one guarantee outstanding stability and torsional rigidity. The closing plates bolted into the steel in the standard design also make it difficult to pry open these windows.



Permanently tight

Our high-quality EPDM rebate seals deliver what they promise, even after many years. The exceptionally weather-resistant material is highly resilient, and therefore guarantees long-term tightness. This avoids draughts and heat losses.



Ease of cleaning

The absence of grooves and recesses in this design makes the window very easy to clean, especially in the rebate area.

AFINO-tec





AFINO

MY CLEVERLY COMBINED WINDOW

Would you still be able to remember the name of the window you chose today in five years' time? That's anyone's guess. But what we do know for sure is that if you opt for AFINO-tec, you will not need to think about replacing your windows in five years' time. Or even in 10 or 15 years' time. So why is that the case? Because AFINO-tec thinks for you and even looks ahead. For its current technology will pay off in the long run. Thanks to the flexible configuration and combination options for AFINO packages, you can bring your AFINO-tec even more closely in line with your current and future requirements.

AFINO-tec

The bespoke high-tech window

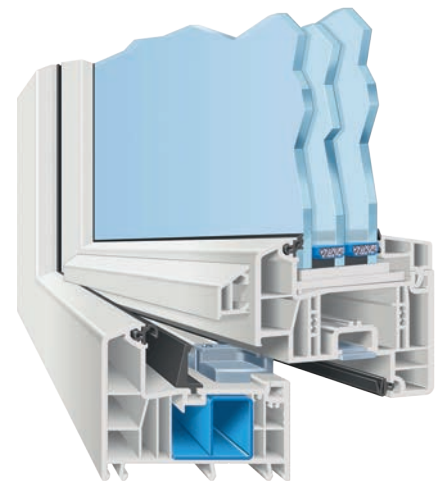


AFINO

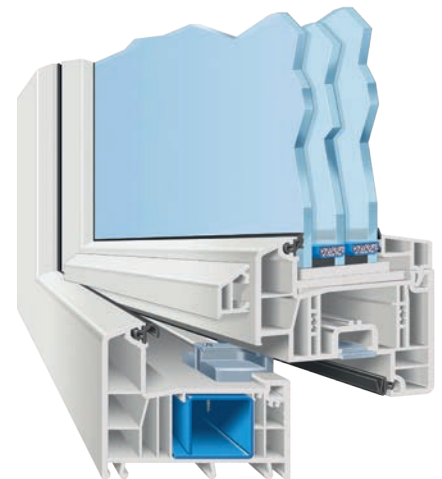
We're not interested in gimmicks – we'll leave that to the others. We never use state-of-the-art technology just for the sake of it. Indeed, we pursue the clear objective that every innovation should provide you with distinct added value. This is in fact what the AFINO-tec basic window already does. With general steel reinforcement in the frame, the GFP high-tech material and load-bearing components bolted into the steel, it surpasses other windows with enduring dimensional stability and selective resistance force. For you, this means high security and maximum value retention. Add to this the consistently high operating convenience and excellent insulation values to give you an exceptional living experience.

Technical features of AFINO-tec

Profile system	6-chamber-profile Installation depth: 86 mm 2 or 3 seals Frame: PVC profile with general steel stiffening Sash: GFP high-tech material with additional steel stiffening with oversize items
Thermal insulation	Thermal transmission coefficient of window up to $U_w = 0.68 \text{ W/(m}^2\text{K)}$ Thermal transfer coefficient of glazing up to $U_g = 0.4 \text{ W/(m}^2\text{K)}$
Acoustic insulation	Sound insulation value of window up to $R_w = 47 \text{ dB}$
Seals	Fitted EPDM rebate seals (exceptionally weather resistant and highly resilient)
Security	130 kg hinges are a standard feature Standard mushroom cam locks Can be upgraded to security class RC 3 according to DIN EN 1627–1630
Hardware fixing	All security-relevant and load-bearing components are screwed into steel
Maximum sash sizes	Windows 1600 mm x 1700 mm Balcony doors 1300 mm x 2600 mm



AFINO-tec MD
(centre sealing system with three seals)



AFINO-tec AD
(rebate sealing system with two seals)

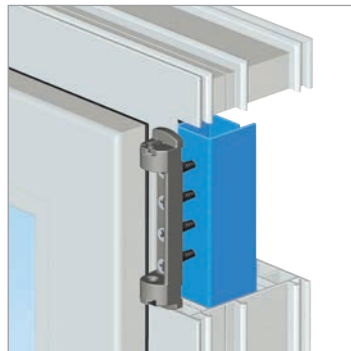
AFINO-tec

- Exceptionally large glazed areas are possible thanks to high-tech material
- State-of-the-art GFP technology guarantees outstanding stability and lasting functionality



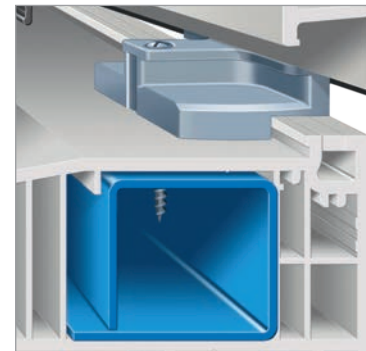
Outstanding energy efficiency

Optimally-matched profile parameters such as installation depth, number of chambers and chamber size ensure the best profile thermal insulation properties. With special Weru insulating glass the windows can achieve heat insulation values up to $U_w = 0.68 \text{ W/(m}^2\text{K)}$. This reduces your energy consumption and cuts heating costs.



High functional reliability

With AFINO-tec, load-bearing hardware components such as the hinges are bolted into the steel at several points. This ensures enduring functionality and high durability for your window, even when using extremely heavy triple glazing, and also ensures smooth operation.



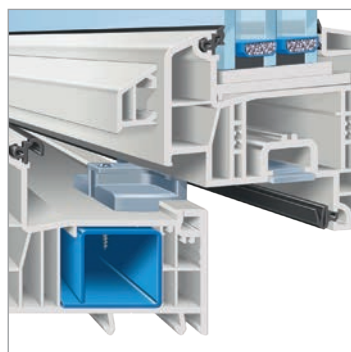
More stability and burglary protection

The all-round steel reinforcement in the frame and the GFRP high-tech material in the sash guarantee outstanding stability and torsional rigidity. The closing plates bolted into the steel in the standard design also make it difficult to pry open these windows.



More light and visibility

The current trend is for ceiling-height window elements that allow in plenty of light and permit passive solar gain. Our fibre-reinforced sash profiles reflect this trend. Combined with steel stiffeners, they ensure outstanding stability and allow exceptionally large windows.



Permanently tight

Our high-quality EPDM stop seals deliver what they promise, even after many years. The exceptionally weather-resistant material is highly resilient, and therefore guarantees long-term tightness. This avoids draughts and heat losses.

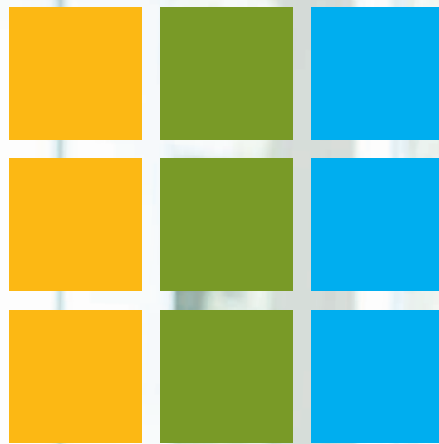


Ease of cleaning

The absence of grooves and recesses in this design makes the window very easy to clean, especially in the rebate area.

AFINO- top





AFINO

MY WINDOW MY DESIGN

For one person, colour is a means of personal expression, for another a beautiful colour shade is an extremely personal sensual experience and for a third, a particular colour may trigger certain memories. Irrespective of what colour means for you and which colour you like the most, with AFINO-top you can also indulge your individual taste to choose your windows.

AFINO-top

The bespoke Alumix window

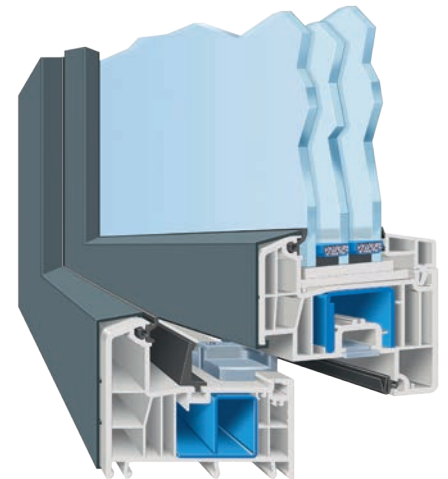


AFINO

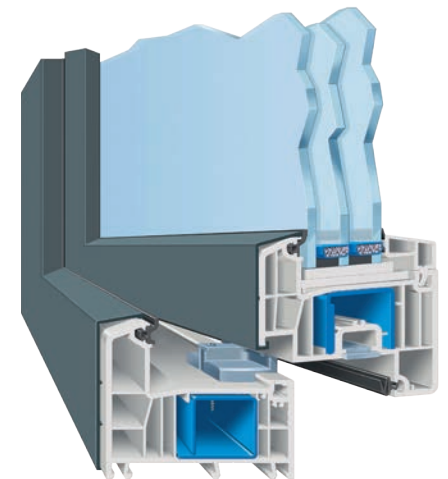
AFINO-top satisfies two requirements at the same time. You not only have all the benefits of a PVCu window in the new AFINO family which includes the AFINO package options. It also comes with the visual and technical benefits of the aluminium surface with further colour options. What's more, the high quality aluminium facing offers additional weather protection.

Technical features of AFINO-top

Profile system	6-chamber profile with aluminium facing Installation depth: 89 mm 2 or 3 seals Frame: PVC profile with general steel stiffening Sash: PVC profile with general steel stiffening Aluminium facing, butted Characteristic modern aluminium appearance
Thermal insulation	Thermal transmission coefficient of window up to $U_w = 0.68 \text{ W/(m}^2\text{K)}$ Thermal transfer coefficient of glazing up to $U_g = 0.4 \text{ W/(m}^2\text{K)}$
Acoustic insulation	Sound insulation value of window up to $R_w = 47 \text{ dB}$
Seals	Fitted EPDM rebate seals (exceptionally weather resistant and highly resilient)
Security	130 kg hinges are a standard feature Standard mushroom cam locks Can be upgraded to security class RC 2 according to DIN EN 1627–1630
Hardware fixing	All security-relevant and load-bearing components are screwed into steel
Maximum sash sizes	Windows 1500 mm x 1550 mm Balcony doors 1200 mm x 2500 mm



AFINO-top MD
(centre sealing system with three seals)



AFINO-top AD
(rebate sealing system with two seals)



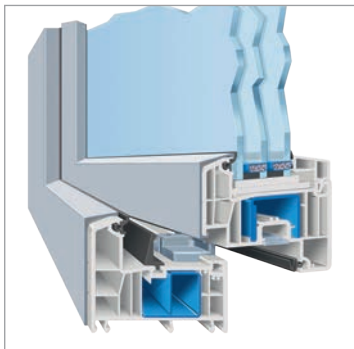
Modern appearance with butted aluminium facing

AFINO-TOP

- Unique colour effects possible
- Even more weather resistant thanks to the intelligent combination of aluminium and PVCu
- High-quality aluminium appearance



PREMIUM WINDOW



Alu meets PVCu – intelligent combination of materials

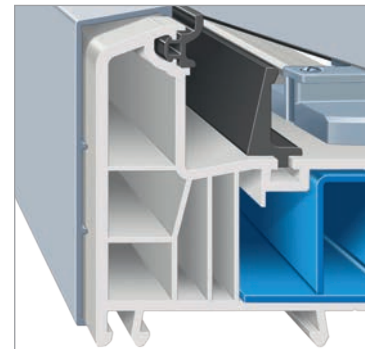
AFINO-top combines the benefits of two different high-quality materials in one window. The high thermally-insulating PVCu profile is combined with the benefits of a top-quality and easy-to-clean aluminium facing with a sophisticated appearance.



Unlimited colours

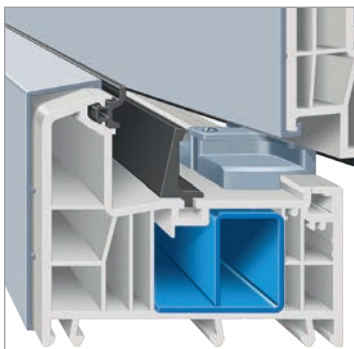
You may wish to incorporate colourful accents, or prefer to adopt a classic look to reflect your lifestyle. With the aluminium facing shell, the choice is yours – in addition to 15 standard colours in matt and 9 wood texture colour shades, there are some 200 RAL classic colour shades to choose from.

For more detailed information about your design options see page 71.



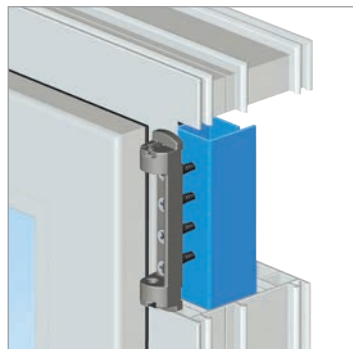
Low heat transfer

The special aluminium facing construction guarantees stress-free connection. The small contact areas between aluminium facing shell and the PVCu profile interrupt direct heat conduction and prevent the PVCu profile surface from cooling down.



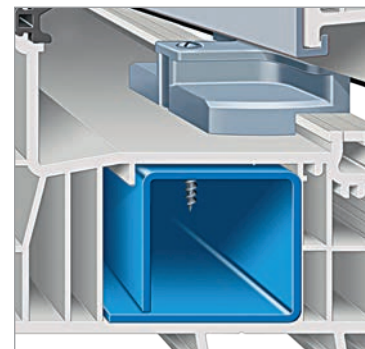
Outstanding energy efficiency

Optimally-matched profile parameters such as installation depth, number of chambers and chamber size ensure the best profile thermal insulation properties. With special Weru insulating glass the windows can achieve heat insulation values up to $U_w = 0.68 \text{ W}/(\text{m}^2\text{K})$. This reduces your energy consumption and cuts heating costs.



High functional reliability

With AFINO-top, load-bearing hardware components such as hinges are bolted into the steel at several points. This ensures enduring functionality and high durability for your window, even when using extremely heavy triple glazing, and also ensures smooth operation.



More stability and burglary protection

The all-round steel reinforcement in the frame guarantees outstanding stability and torsional rigidity. The closing plates bolted into the steel in the standard design also make it difficult to pry open these windows.

AFINO-art



AFINO

MY BESPOKE WINDOW DESIGN

Did you know that even houses can have a slender profile? AFINO-art is the right choice for more elegance on the outside and more brightness on the inside. The frameless adhesive sash construction makes your window appear larger and, most importantly, ensures a pleasant daylight atmosphere in the interior that also imparts a sense of lightness to your rooms.

AFINO-art

The bespoke architect window



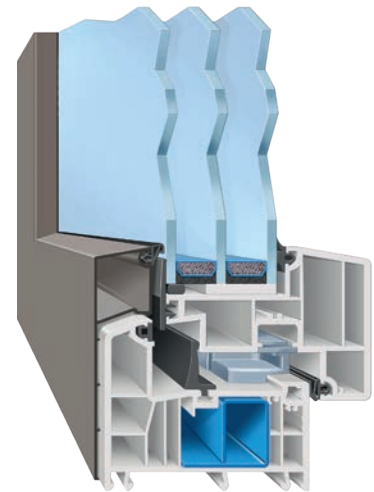
AFINO

Although AFINO-art has an alluring visual appearance, you can rest assured that the interior lives up to this quality. Modern building and refurbishment ultimately also requires careful selection of materials with the aim of achieving maximum energy efficiency.

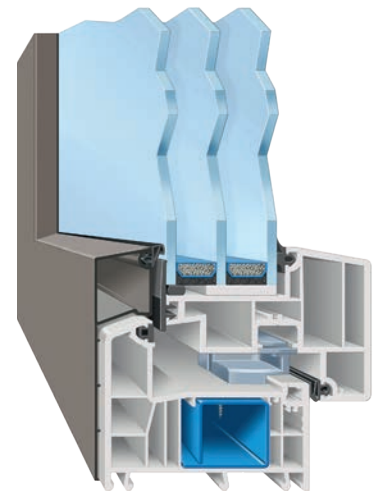
What's more, AFINO-art is also uncompromising when it comes to security. We would be only too pleased reveal the secret behind the architectural effect of AFINO-art and how you could in fact get even more out of the AFINO package options for yourself.

Technical features of AFINO-art

Profile system	6-chamber-profile
	Installation depth: 89 mm
	2 or 3 seals
	Frame: PVC profile with general steel stiffening and aluminium facing
	Sash: GFP high-tech material with additional steel stiffening with oversize items
	Pane of insulation glass is generally glued into the sash
	Aluminium facing, butted
Thermal insulation	Thermal transmission coefficient of window up to $U_w = 0.68 \text{ W/(m}^2\text{K)}$
	Thermal transfer coefficient of glazing up to $U_g = 0.4 \text{ W/(m}^2\text{K)}$
Acoustic insulation	Sound insulation value of window up to $R_w = 39 \text{ dB}$
Seals	Fitted EPDM rebate seals (exceptionally weather resistant and highly resilient)
Security	130 kg hinges are a standard feature
	Standard mushroom cam locks
Hardware fixing	Can be upgraded to security class RC 1 according to DIN EN 1627–1630
	All security-relevant and load-bearing components are screwed into steel
Maximum sash sizes	Windows 1300 mm x 1700 mm
	Balcony doors 1000 mm x 2300 mm



AFINO-art MD
(centre sealing system with three seals)



AFINO-art AD
(rebate sealing system with two seals)

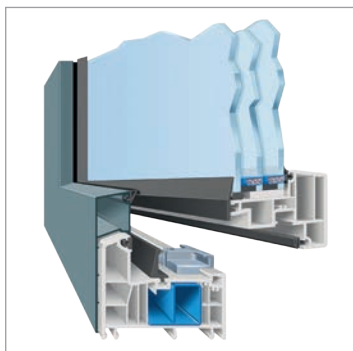


Modern appearance with butted aluminium facing

AFINO-ART

- Blends framelessly with the facade
- Slender design guarantees that plenty of natural light floods in
- Facilitates architectural design solutions

PREMIUM WINDOW



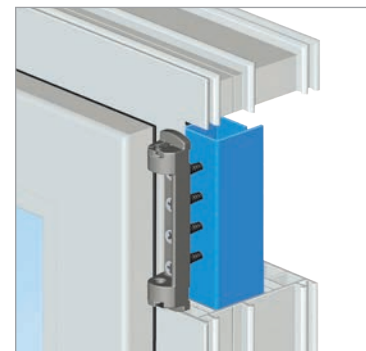
Architect designed solution

The sophisticated design window for all those who like special architectural accents – the sash and frame blend into one. Narrow frame elevations allow natural light to flood in, creating a modern clear profile. The apparently frameless window integrates perfectly into the facade design.



Unlimited colours

The colour of your windows says a great deal about your personality. You may wish to incorporate colourful accents, or prefer to adopt a classic look to reflect your lifestyle. With the aluminium facing shell, the choice is yours – in addition to 15 standard colours in matt, there are some 200 RAL classic colour shades to choose from. For more detailed information about your design options see page 71.



High functional reliability

With AFINO-art, load-bearing hardware components such as hinges are bolted into the steel at several points. This ensures enduring functionality and high durability for your window, even when using extremely heavy triple glazing, and also ensures smooth operation.



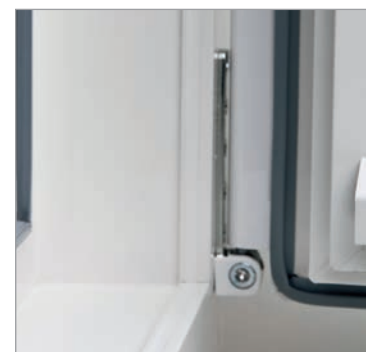
More stability and burglary protection

The all-round steel reinforcement in the frame and the GFP high-tech material in the sash guarantee outstanding stability and torsional rigidity. The closing plates bolted into the steel in the standard design also make it difficult to pry open these windows.



Permanently tight

Our high-quality EPDM stop seals deliver what they promise, even after many years. The exceptionally weather-resistant material is highly resilient, and therefore guarantees long-term tightness. This avoids draughts and heat losses.



Ease of cleaning

The absence of grooves and recesses in this design makes the window very easy to clean, especially in the rebate area.

AFINO

PACKAGES

BESPOKE PREMIUM QUALITY

The Weru window compass



Fast configuration according to individual requirements instead of a long fruitless search. Click www.fenster-kompass.de now

As individual as you are: the AFINO package combinations



Which window type suits me? What does the ideal bathroom window look like? What protection do my windows on the ground floor require? How can I actively protect the environment with windows? Individual questions require individual answers and solutions. This is why flexibly bespoke AFINO packages are available. You can decide on the degree of security, energy efficiency and operating convenience of your individual AFINO window by choosing from the AFINO-X range of packages, consisting of Protect, Energy and Comfort.



My guardian window

With lockable handle, security hardware for RC 1, pry-stop and the special security locking elements of the Protect+ package, as well as the KlimaTherm glazing including condense stop from the Energy+ package, you can be sure you are combining environmental protection and safety in your window.



My first-rate climate feel-good economic security window

Special properties require special equipment. You are guaranteed to get the most out of your window with the comprehensive Protect+++ , Energy+++ and Comfort+++ package ranges in terms of safety, thermal insulation and comfort.



My "everything is ok" window

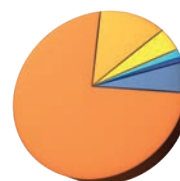
More security, more ventilation comfort with the slam stop and the Weru-Air Comfort ventilator, as well as an even better U_g value of $0.6 \text{ W}/(\text{m}^2\text{K})$ for effective heating cost savings. This is the result of combining the Protect+, Energy++ and Comfort+ packages.



❖ It's all about your security

Did you know that the main point of attack during attempted burglaries is not in fact the glass? In more than 70 % of cases, windows are opened via the hardware. Did you also know that most burglaries (approx. 80 %) are perpetrated by so-called opportunistic thieves, who quickly move on somewhere else if they encounter the slightest degree of resistance?

In light of this, all Weru windows feature high-quality hardware and tough frame construction. Those who are looking to systematically increase this resistance, in order for example to protect specific windows on the ground floor or near a balcony, can opt for the Protect packages which are tailored to their individual needs.



Methods used to open windows in apartment break-ins

- 73.7 % Levering open frame
- 13.5 % Window tilted
- 4.8 % Glass broken and window unlocked
- 1.6 % Window open/unlocked
- 0.8 % Glass broken
- 0.0 % Glass cut and window unlocked
- 5.6 % Other

Study conducted in Cologne in 2006, Police Headquarters, Cologne

Protect My reassuringly safe window

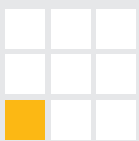


A break-in doesn't only cause material loss, it often results in psychosomatic disorders such as insomnia and anxiety. This doesn't have to be the case. The three Protect package levels give you peace of mind and increase the security of your window comprehensively and systematically. This means more resistance, more protection and more deterrence for your window, and more security, peace and tranquility for you and your family.

- **Resistance:** Protect increases your window's burglary resistance
- **Protection:** Protect stops the handle being manipulated and opened from outside
- **Deterrence:** Protect has a preventative effect, triggering an alarm in the presence of an intruder



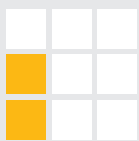
Protect +



Protects against forcible opening by prying out, prevents the handle from being twisted open

- Lockable handle
- Security hardware for RC 1
- Pry-stop, horizontal

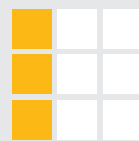
Protect ++



Further increases the pry out security with reinforced steel fittings

- Lockable handle
- Security hardware for RC 1
- Pry-stop, horizontal
- Security reinforced steel fittings

Protect +++



Protects against break-ins using tools, emits alarm if the glass breaks

- Lockable handle
- Security hardware for RC 2
- Pry-stop, horizontal
- Pry-stop, vertical
- Security reinforced steel fittings
- Glass break alarm

Your answer to all security issues: the three Protect levels and their components



AFINO

Our three Protect levels combine the most important security and protection mechanisms a window can have. So you find new product innovations, such as hardware with the integrated pry out stop, alongside tried and proven security solutions such as the glass breakage alarm. Thanks to the ingenious combination packages, you will also stay safely within your budget.



OVERVIEW OF THE INDIVIDUAL PROTECT COMPONENTS:



Included in
Protect +, ++
and +++

Lockable handle

- Prevents the handle from being twisted open through manipulation from the outside
- Prevents the window from being easily opened, even when the pane is broken



Child-proof lock (optional)

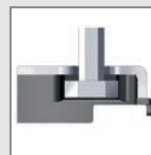
- Protects against unwanted opening at the hands of children
- The special tilt-before-turn mechanism ensures that children can only tilt the window and not open it
- It can only be opened with a key
- Optional special equipment



Included in
Protect +
and ++

Security hardware for RC 1

- Mushroom cam locks are mounted at the corners of the window to make it more difficult to pry out the window
- Recommended for town and estate houses



Included in
Protect +++

Security hardware for RC 2

- Additional mushroom cam locks are mounted around the window to increase protection against attempted forcible entry
- Recommended for detached single family homes

WHAT DO THE RC CLASSES ACTUALLY MEAN?

The standardised resistance classes (new resistance classes) RC 1–3 as per DIN EN 1627–1630 describe the minimum time a window must be able to withstand an attack using the set of tools defined in each case. Recommendations for the corresponding resistance class of a window that may also be relevant to insurance matters are normally based on the location of the residential property. These start with security class RC 1 for town and estate houses, to RC 2 for detached single-family houses through to RC 3 for secluded houses, villas or exclusive property.

IN WHAT SITUATIONS SHOULD I TAKE NO CHANCES AND HOW CAN I DO THIS?

Windows on the ground floor and patio doors are the most vulnerable. 70 % of burglaries occur in these two areas alone. Weru has responded early to this development with a comprehensive range of tried-and-tested effective components for patio doors and ground floor windows designed to prevent burglaries. However, burglary-deterrent windows and doors can only work effectively if they are installed properly. This is where your Weru specialist dealer comes in. Our in-house experts will be pleased to advise you on which burglary protection features are best for your house or apartment.

Preferred ingress points in houses



- ① 8.1 % Basement windows/light shafts/doors
- ② 28.7 % Ground floor windows
- ③ 41.0 % Patio/balcony doors on ground floor
- ④ 14.6 % Front doors/secondary entrance doors
- ⑤ 7.6 % Balcony doors/windows on first floor

Source: Analysis by Bavarian State Office of Criminal Investigation



Included in Protect +, ++ and +++

Pry-stop

- Enhances burglary deterrence with special mushroom cam and hammer head locks that work in opposing directions to stop the window casement being pushed out of the locking mechanism
- Only from Weru



Included in Protect ++ and +++

Security reinforced steel fittings

- Multiple locks bolted into special steel reinforcement elements maximise the window's resistance to being pried out
- Ensures additional loading capability and stability of frame and window as load-bearing components are generally bolted into the steel



Included in Protect +++

Glass break alarm

- Loud alarm sounds when a pane breaks
- Deters attempted break-ins
- Prevents false alarm with dual sensor mechanism (vibration and frequency)

> Additional equipment options

such as the Weru surveillance unit or special safety glass and hardware which further increases the security of your window, if required, are listed from page 82 onwards.



••• More sought after than ever: your energy efficiency

If you want to save energy you don't have to freeze. Instead, you need to make sure that the heat stays where it belongs: within your own four walls. One of the most important means of achieving this is by using the right windows. The rate of progression in thermal efficiency and energy saving technology in recent years has been more rapid for windows than any other component of the building envelope, not least thanks to innovative Weru technology.

All windows in the new AFINO family have above average thermal insulation values. But this wasn't enough for us. When you opt for an Energy package tailored to your requirements, you are able to further increase the thermal efficiency of your window, reduce energy costs and protect the environment.

Before installation

Following installation



Thermal images: red shows areas in which thermal losses occur. The more intense the red colour, the higher the thermal loss at the individual components.

Old PVCu windows

New Weru windows

Energy My save yourself heat window

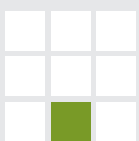


Save energy and feel-good factor, this is the basic principle of the three Energy package levels. We work on the finest details to ensure you systematically use less energy and can effectively cut costs. This is because every percentage increase in thermal efficiency over the long service life of the premium window ultimately means hard cash savings for you.

- **Greater feel-good factor:**
Energy ensures an even surface temperature, thereby reducing cold emission
- **Improved energy efficiency:**
Offers up to 55% more energy efficiency than the ExtraTherm basic glazing
- **Lower heating costs:** Energy lets energy in from the outside and keeps heat inside the home



Energy +



Offers 36% more energy efficiency than the ExtraTherm basic glazing

Weru-KlimaTherm ($U_g = 0.7$)

Condense stop

Energy ++



Offers 45% more efficiency than the ExtraTherm basic glazing and reduces cold emissions thanks to the ThermoPlus profile

Weru-PrimaTherm ($U_g = 0.6$)

Condense stop

ThermoPlus profile

Energy +++



Offers 55% more efficiency than the ExtraTherm basic glazing and reduces cold emissions thanks to the ThermoPlus profile

Weru-SupraTherm ($U_g = 0.5$)

Condense stop

ThermoPlus profile

Your solution for more energy efficiency: the three Energy levels and their components



AFINO

We have effectively bundled the most efficient active thermal insulation measures in our three Energy packages. From thermal glazing with ultra-thin coating including triple-glazed window engineering to heat-insulating spacers through to the innovative ThermoPlus profile with foam-filled insulating chamber, whichever method you choose, you can increase the thermal efficiency of your window by up to 55 % compared to a window with basic glazing ($U_g = 1.1$).



THE INDIVIDUAL ENERGY COMPONENTS AT A GLANCE:



Included in
Energy +

Weru-KlimaTherm (U_g value 0.7)

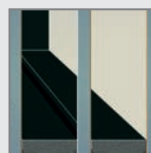
- Offers 36% more energy efficiency than the basic glazing thanks to the triple thermally insulating glazing with two coated panes and argon inert gas filling



Included in
Energy ++

Weru-PrimaTherm (U_g value 0.6)

- Offers 45% more energy efficiency than the basic glazing thanks to the triple thermally insulating glazing with two coated panes and argon inert gas filling



Included in
Energy +, ++
and +++

Condense stop

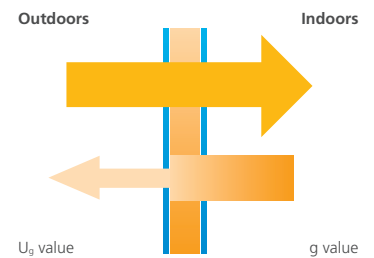
- Reduces condensation formation on the pane of glass above the glazing bead due to highly-insulating PVCu glazing spacers
- Warm edge ensures pleasant living climate due to even surface temperature

WHAT DOES THE U VALUE OF A WINDOW MEAN?

This value (previously known as the k-value) is also known as the thermal transmission coefficient and states the rate of heat flow through the window when the temperature difference between the inside and outside remains constant. The U value of the window is calculated from the thermal transmission coefficients of the frame and sash profile (U_f), the glazing (U_g) and the glazing edge compound used. The following applies as a basic rule: the lower the U value is, the more effective the thermal insulation properties of the window will be.

IS IT POSSIBLE TO RECOVER ENERGY USING THE CORRECT WINDOW TECHNOLOGY?

The insulating glass in the Energy packages helps you save on heating costs. The U_g value defines the loss of thermal energy to the outside and the g value defines how much energy reaches the interior via the sunlight. The higher the g value, the higher the energy yield from incoming sunlight. Weru windows have a low U_g value and a g value of up to 60%, and therefore create a pleasant living climate without cold zones. They also give you the sense that your money is not being sucked out of the window!



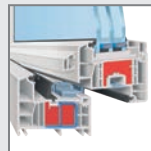
Weru thermal glazing allows plenty of solar energy in (higher g value), but only allows a small amount of thermal energy to escape (low U_g value).



Included in Energy +++

Weru-SupraTherm (U_g value 0.5)

- Offers 55% more energy efficiency than the basic glazing thanks to the triple thermally insulating glazing with two coated panes and argon inert gas filling



Included in Energy ++ and +++

ThermoPlus profile

- Optimises the thermal efficiency of the profile system due to ingenious chamber geometry in combination with thermal insulation foam
- Reduces thermal bridging due to all-round foam filling, also in the corner area of the profile
- Ensures feeling of well-being with consistent glass and surface temperature

> For more insulating glass systems see page 74.



❖ Here's how to create your feel-good atmosphere

Those who want a relaxed lifestyle need air to breathe. In the truest sense of the word. This is because for you to feel comfortable within your own four walls the air needs to be changed regularly. Exhaust air, odours and moisture must be removed and replaced by oxygen-rich fresh air.

It's not just you who benefits from regular ventilation. A healthy living climate is also good for the house and apartment and helps prevent damage to the building due to excessive moisture and mould. For those who think that ventilation is all well and good but that it also comes at a price, namely higher energy consumption, we recommend regulated ventilation. This can be achieved most easily with the Comfort packages, which are tailored to your specific requirements. These show that it is possible to reconcile what appear to be conflicting objectives: fresh air and energy efficiency.

Comfort My "totally relaxed" window

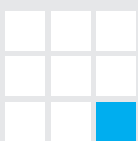


You have had a stressful day and would like to enjoy some time at home at last. Do you think about regulated ventilation in these kind of situations? Of course not. Nor should you have to. That's why we offer the three Comfort package levels. They ensure the right living and feel-good climate. All you have to do is sit back and relax.

- **More quality of life:** Comfort freshens up the daily routine with a supply of oxygen-rich fresh air
- **No chance for moisture and pollutants:** ventilating with Comfort prevents mould and headaches
- **Energy-saving ventilation:** Comfort brings preheated fresh air into your rooms entirely of its own accord



Comfort +

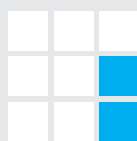


Ensures permanent ventilation, closes automatically in strong winds

Weru-Air Comfort

Slam stop

Comfort ++



Offers basic ventilation with the burglary deterrence of a closed window

Safe&Go ventilation
Security hardware for RC 1

Comfort +++



Ensures fresh pre-heated air which is low in pollutants

Weru AeroTherm ventilators
Activated carbon filter
Pollen filter (optional)

Your enhanced living and feel-good climate: the three Comfort levels and their components



AFINO

A healthy living climate is no mystery. Our three Comfort levels offer different ways of achieving a comfortable atmosphere that suits your individual requirements – in a simple, fast and uncomplicated manner.

No matter whether comfortable continuous ventilation, basic ventilation without draught effect or the innovative AeroTherm ventilation system with integrated heat recovery: regulated ventilation has never been easier.



THE INDIVIDUAL COMFORT COMPONENTS AT A GLANCE:



Included in
Comfort +

Weru-Air Comfort

- Ensures permanent ventilation
- Closes automatically in strong winds (no draught effect) while providing the necessary basic ventilation
- Heats the incoming air in the frame rebate



Included in
Comfort +

Slam stop

- The sash is fixed to prevent it from slamming shut during intermittent ventilation
- Variably limits the ventilation opening of the window

WHY IS VENTILATION SO IMPORTANT?

Did you know that 15 pot plants transfer up to 3.6 litres of water to the air every day, and that this amount increases by an additional 2.6 litres by taking four shower baths each lasting 15 minutes? Once the temperature-dependent maximum quantity of water vapour which can be absorbed by the air is reached and the temperature continues to fall, condensation forms which can under some circumstances lead to mould growth. The only way to deal with excessive moisture is systematic ventilation.

WHICH VENTILATION TECHNOLOGY SHOULD I USE?

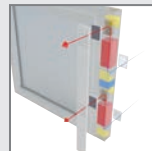
Window and internal doors wide open. This type of draught effects a quick and complete exchange of air. For all those who leave the house early in the morning and are therefore unable to ensure regular ventilation, Weru offers the ideal ventilation aids and systems for all living situations.



Included in
Comfort ++

Safe&Go ventilation

- Permits room ventilation with the windows locked through special hardware, which parks the window sash parallel to the frame with a ventilation gap of 6 mm
- All-round ventilation gap guarantees continuous basic ventilation without draught effects
- Special hardware ensures enhanced burglary deterrence, even in the ventilation position, up to security class RC 1



Included in
Comfort +++

Weru AeroTherm ventilators

- Ensures exchange of air with practically no loss of heat by preheating the incoming air to 17 °C at an outdoor temperature of – 10 °C and a room temperature of 20 °C (= 90 % efficiency)
- Reduces the pollutants in the air by integrated activated carbon filter and optional pollen filter



> **Ventilation aids and ventilators** can also be found on page 76 onwards.



ALL-ROUND WINDOW

SOLUTIONS





RELIABILITY CAN BE THIS VERSATILE

Whether new build or renovation project: when it comes to choosing the right window, reliable quality is the only way to ensure that the decision you make today will still be the right one tomorrow. With Weru, you are building on reliable development expertise spanning over 50 years, on tried-and-tested windows systems that we have continuously developed further and on individual freedom of design with numerous equipment options.



Castello



Sereno



CASTELLO

THE ALL-IN-ONE OPTION

Looking for high quality windows that won't let you down in the years to come, give you the security you need and are uncomplicated to use? If so, then Castello windows by Weru are the right choice for you. Whether you opt for a recessed or semi-recessed system, Castello can meet all your design expectations. This window system has all the key benefits rolled into one, and with an impressive price-performance ratio.

Castello

The versatile all-round window

Whether old building renovation or new build project, when you opt for Castello you can look forward to years of enjoyment from your new windows. The reliable inner workings, high degree of operating convenience and reliable hardware make sure of this. In order to satisfy all expectations and not least your own personal taste, there are numerous shape and colour variants to choose from, and the extra optional features allow you to adapt Castello to your individual requirements. We offer the broadest range of designs in the industry, so you can be sure you will get just one window solution: the right one.

Technical features of Castello

Profile system	5-chamber-profile
	Installation depth: 70 mm
	View: recessed and semi-recessed
	2 seals
	Frame: PVC profile with general steel stiffening
	Sash: PVC profile with general steel stiffening
Thermal insulation	Thermal transmission coefficient of window up to $U_w = 0.76 \text{ W/(m}^2\text{K)}$
	Thermal transfer coefficient of glazing up to $U_g = 0.4 \text{ W/(m}^2\text{K)}$
Acoustic insulation	Sound insulation value of window up to $R_w = 44 \text{ dB}$
Seals	Fitted EPDM seals (exceptionally weather resistant and highly resilient)
Security	100 kg hinges
	Standard mushroom cam locks
	Can be upgraded to security class RC 3 according to DIN EN 1627-1630
Hardware fixing	All security-relevant and load-bearing components are screwed into steel
Maximum sash sizes	Windows 1500 mm x 1400 mm
	Balcony doors 1200 mm x 2500 mm



Cutaway view of Castello system, recessed

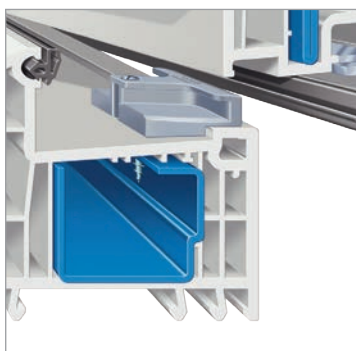


Cutaway view of Castello system, semi-recessed

CASTELLO

- Outstanding quality in tried and proven technology
- Broad product range satisfies every requirement
- Reliable classic for refurbishments and new buildings

ALL-ROUND WINDOWS



Long service life

With Castello, all hardware is screwed into the all-round steel reinforcement – not just the PVCu, for example. This guarantees problem-free functionality for decades.



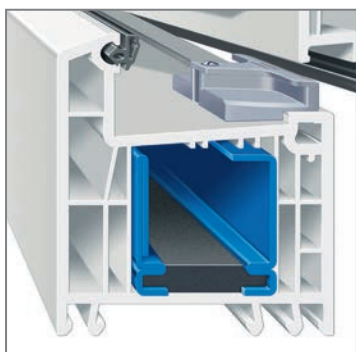
Enhanced security

Security corner transmissions are a standard feature of the basic version and ensure greater burglary deterrence. The integrated security concept allows burglary deterrence to be increased up to security class RC 3.



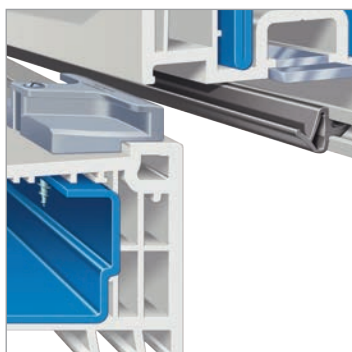
Broader range of designs

We can also manufacture Castello window frames in a width to suit your construction needs. To allow more light in through small bathroom windows, for instance.



Increased energy efficiency

Thermal flow is significantly hampered by introducing polyamide webs between the steel reinforcement sections (thermal separation). This gives the 5-chamber system Castello a U_i -value improvement of $0.2 \text{ W/(m}^2\text{K)}$ to $1.1 \text{ W/(m}^2\text{K)}$.



Permanently tight

Our high-quality EPDM seals deliver what they promise, even after many years. The exceptionally weather-resistant material is highly resilient, and therefore guarantees long-term tightness. This avoids draughts and heat losses.



Ease of cleaning

The absence of grooves and recesses in this design makes the window very easy to clean, especially in the rebata area.

A photograph of a bedroom. In the foreground, a bed with a teal-colored blanket is visible. Behind it, a bed is made with a white quilted pillow and a floral patterned pillow. The bed is positioned against a light-colored wall. Above the bed, a window with a white frame looks out onto a lush green landscape with trees and a tiled roof. The word "SERENO" is overlaid in large, bold, grey capital letters across the middle of the image.

SERENO

THE SIMPLY INGENUOUS SOLUTION

Whether you are a young family looking for windows for your new home, or have finally got round to a long-awaited refurbishment, there's one thing you should not do without: high quality windows. Because if your only criterion is the lowest possible price, you could well be trimming your budget in the wrong area. We have developed a low-priced quality window to make sure this doesn't happen to you. Sereno has a particularly favourable price-performance ratio, is suitable for new build and renovation projects and is a reliable all-rounder which effortlessly delivers comfort, tranquillity and security.

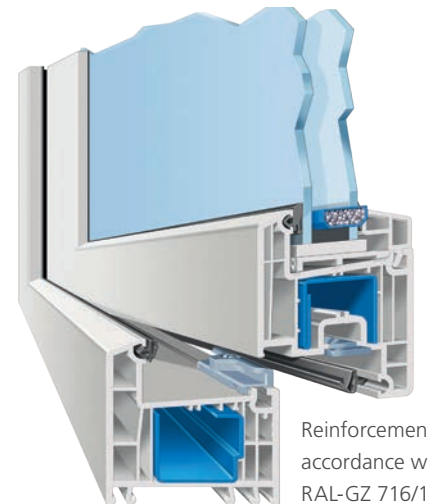
Sereno

The reliable quality window

That offers more than just a good price. The reliable quality window ensures your comfort, tranquility and security. Because Sereno has everything a window needs. In addition to fulfilling aesthetic requirements, it more importantly also performs all the necessary technical functions for both new build and renovation projects. On that you can rely. The heat stays in and the noise stays out – and with plenty of light to boot. Equipped with the appropriate hardware, this window also makes life difficult for burglars.

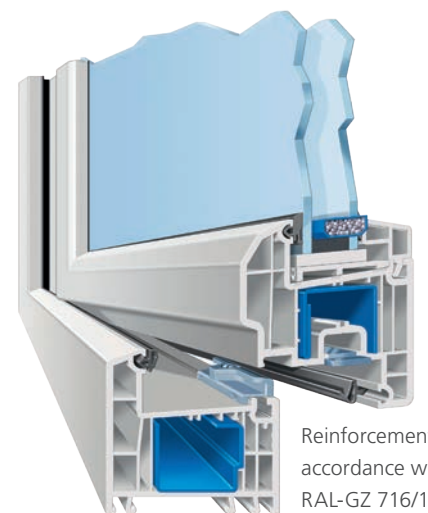
Technical features of Sereno

Profile system	5-chamber-profile
	Installation depth: 70 mm
	View: recessed and optionally semi-recessed
	2 seals
	Frame: PVC profile, steel stiffening depending on size in accordance with RAL
	Sash: PVC profile, steel stiffening depending on size in accordance with RAL
Thermal insulation	Thermal transmission coefficient of window up to $U_w = 0.83 \text{ W/(m}^2\text{K)}$
	Thermal transfer coefficient of glazing up to $U_g = 0.4 \text{ W/(m}^2\text{K)}$
Acoustic insulation	Sound insulation value of window up to $R_w = 44 \text{ dB}$
Seals	Fitted EPDM seals (exceptionally weather resistant and highly resilient)
Security	100 kg hinges
	Can be upgraded to security class RC 1 according to DIN EN 1627–1630
Hardware fixing	All security-relevant and load-bearing components are screwed through at least 2 PVCu walls
Maximum sash sizes	Windows 1500 mm x 1400 mm
	Balcony doors 1200 mm x 2500 mm



Reinforcement in accordance with RAL-GZ 716/1

Sereno wide recessed



Reinforcement in accordance with RAL-GZ 716/1

Sereno semi-recessed (available as an option)

SERENO

- Proven in daily use
- For price-aware discerning buyers
- Sound functionality



Comfort

The Sereno windows with thermal insulation are kind to the environment and, unlike low-cost windows, permanently save on heating costs. Sereno achieves favourable thermal insulation characteristics with the standard thermal glazing system ($U_w = 1.3 \text{ W/[m}^2\text{K]}$). The heat insulation value can be improved further using 3-pane thermally-insulated glazing.



Tranquility

Robust windows are the best way to keep out noise of any kind. The EPDM seals and range of acoustic protection glass that feature in the Sereno range ensure your peace and tranquility and maximum acoustic insulation values of up to 44 dB (acoustic protection class IV).



Security

When you install Sereno windows you make life difficult for burglars. Even the standard version of this reliable quality window provides effective basic protection. This can optionally be upgraded to security class RC 1.



Stability

You can rely on the high-quality RAL-certified PCV profile of Sereno. They guarantee high stability with the window size-dependent steel stiffening.

BALCONY AND PATIO

DOORS

QUALITY ON ALL FRONTS

Create new perspectives for yourself and your own four walls, and more scope for living. Modern design and large-surface door and window fronts blur the boundaries between your garden, patio, balcony or conservatory and your indoor living space. A simple balcony door, large-surface tilt and slide door or innovative lifting sliding door, whatever option you choose you can rest assured it will be the right solution for your individual building situation. They differ in their opening types. But their quality, engineering and workmanship, satisfying the most stringent demands, is the same.

Balcony and patio doors

Our extended product range for holistic requirements

When you think about your house or apartment you tend to think of it not in terms of windows, but as an overall expression of your quality of life and individual style. We tend to think along the same lines, which is why we offer not only the right windows, but also of course suitable balcony and/or patio doors with a similar range of design options for every living situation. Your Weru specialist dealer can advise you on which patio doors are the best match for your window system.



The terrace doors are built according to the same principle as the windows

- Same quality expectations: stable profiles, innovative technologies and ease of operation
- Identical optional equipment: from thermal glazing through to burglary deterrence and surveillance
- Consistent appearance in terms of colour and form. Benefit from Weru's broad range of colours.
- One-stop advice, planning and installation. Plus comprehensive services for lasting enjoyment of windows and doors.

The balcony door – the universal classic

The Weru balcony door is available as a single, two or three-sash version for tilting and turning. A device integrated into the standard version ensures that the balcony door is not opened just by a gust of wind. An aluminium profile provides additional protection to the lower frame, which is frequently subject to high levels of stress. As an option, the balcony doors can of course also be equipped with Weru roller shutters or venetian blinds.



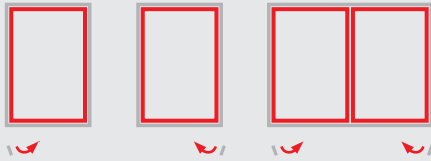
Technical features of the balcony door

Energy efficiency	$U_f = 0.9-1.3 \text{ W/(m}^2\text{K)}$
	$U_w = \text{up to } 0.68 \text{ W/(m}^2\text{K)}$
Burglary deterrence	RC 1, RC 2, RC 3
Maximum sash size	1300 mm x 2600 mm*
Acoustic protection up to (R_{WP})	44 dB
Barrier-free	Yes
Can be upgraded to an entrance door (lockable with profile cylinder)	Yes

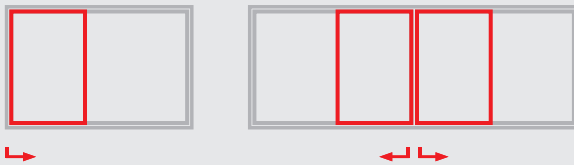
* In the AFINO-tec version.

OPENING EXAMPLES AT A GLANCE

Balcony doors



Tilt and slide doors



The tilt and slide door – wide window fronts with ventilation options

The tilt and slide door can be tilted to provide ventilation and pushed open sideways to provide access. This is done using a smooth-running one-handed lever handle. Force-controlled scissor mechanisms initially push the door leaf into the tilt position, when the handle is turned further out of the horizontal position, the sash is returned to the parallel position from which it can easily be slid to the side.



Technical features of tilt and slide door

Energy efficiency	$U_f = 0.9\text{--}1.3 \text{ W}/(\text{m}^2\text{K})$
	$U_w = \text{up to } 0.68 \text{ W}/(\text{m}^2\text{K})$
Burglary deterrence	RC 1, RC 2
Maximum sash size	1600 mm x 2600 mm*
Acoustic protection up to (R_{wp})	44 dB
Barrier-free	No
Can be upgraded to an entrance door (lockable with profile cylinder)	Yes

* In the AFINO-tec version.

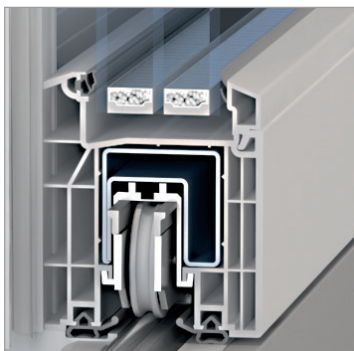
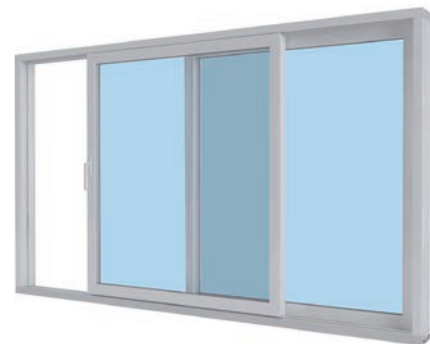
The lifting/sliding door

Outstanding operating comfort and technology

The Weru lifting sliding door is a space-saving solution which is recommended for extremely large door openings. The precision guidance of the door leaf at the top and bottom means it can be opened and closed sideways very easily. It also offers effective thermal insulation, maximum tightness, exceptional stability and reliable burglary deterrence. The lifting/sliding door can be equipped with the Weru secur surveillance system if required.

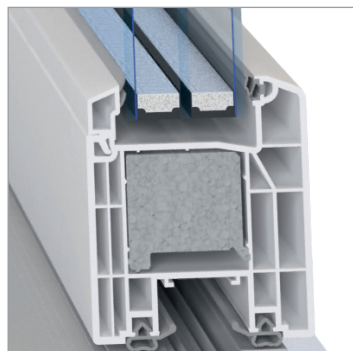
Technical features of lifting sliding door

Energy efficiency	$U_f = 1.3 \text{ W}/(\text{m}^2\text{K})$
	$U_w = 0.8 \text{ W}/(\text{m}^2\text{K})$
Burglary deterrence	RC 1, RC 2
Maximum sash size	3000 mm x 2700 mm
Acoustic protection up to (R_{wP})	42 dB
Barrier-free	Yes
Can be upgraded to an entrance door (lockable with profile cylinder)	Yes



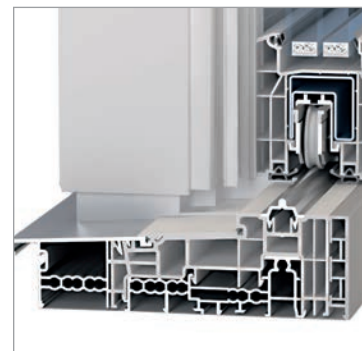
High operating comfort

Special steel-reinforced running carriage housings stabilise the sashes, which therefore slide open and closed sideways very easily due to the smooth-running operation. A special easy access threshold is available on request (to DIN 18040) for an almost seamless transition to outside.



Outstanding energy efficiency

Thanks to the fully-reinforced 86 mm thick GFRP high-tech sash profiles, the upright sash does not require full steel reinforcement, the U_f value being $1.3 \text{ W}/(\text{m}^2\text{K})$. Weru thermal insulation glazing is able to achieve a U_w value of $0.8 \text{ W}/(\text{m}^2\text{K})$.

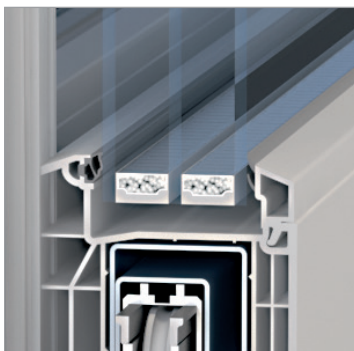
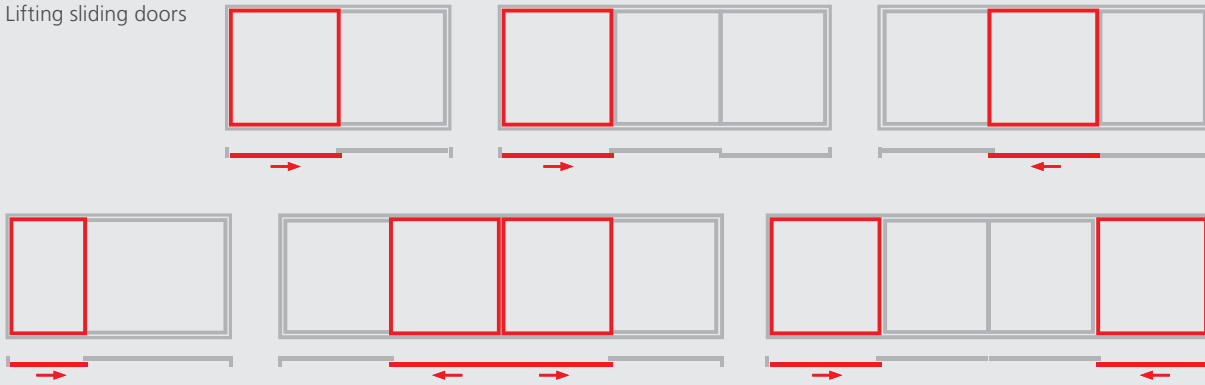


More comfort

The ingenious chamber geometry of the PVCu-aluminium threshold ensures outstanding energy efficiency and reduces the risk of condensation forming in the area around the threshold.

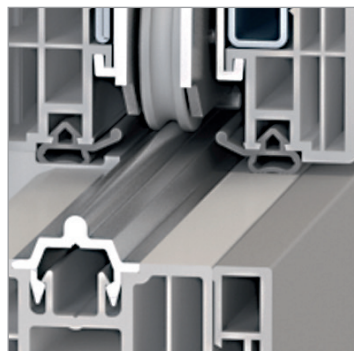
ALL OPENING VARIANTS AT A GLANCE

Lifting sliding doors



Enhanced living comfort

The special profile construction permits a glazing thickness of 53 mm, thereby allowing functional glazing to be used to provide a greater degree of thermal insulation, intrusion protection and acoustic protection just as your living situation requires.



Outstanding tightness

Peripheral sash seals, special drop-down seals and seals on the centre closing profiles ensure the lifting/sliding door is optimally sealed against air and driving rain when closed.



Outstanding stability

Fully-alarmed GRP high-tech sash profiles guarantee optimised dimensional stability and allow sensational sliding sash dimensions of 3.0 m x 2.7 m for more daylight in the living area. The stabilised running carriages guarantee load transfer for heavy triple glazing systems weighing up to 300 kg.



ROLLER SHUTTER AND VENETIAN BLINDS



THE INGENIOUS SYSTEM SOLUTION FOR ALL WHO SEE THEIR WINDOWS AS MORE THAN JUST WINDOWS

When you choose Weru windows with the matching roller shutters or venetian blinds, there are added benefits: you get windows and roller shutters or venetian blinds that are perfectly matched and fully assembled to a high degree of precision at the factory. This saves on time, costs and is easy on the nerves and eliminates the need for the complex coordination of deadlines for individual window and roller shutter installation engineers.

Roller shutter and venetian blind as complete window element

All in one, all for you

No matter whether flush-fitting or compact solution – Weru has the right system for any building situation which, incidentally, satisfies all requirements of the Energy Saving Ordinance in Germany. Special requirements for style, material and features are also no problem. You can, for example, fit an optional insect blind which can be operated separately to all roller shutter windows.



This speaks in favour of an all-in-one window element

- **Made to measure:** from a technical standpoint, the roller blinds, venetian blind boxes and windows are harmonised so they fit perfectly with one another. This guarantees a high degree of stability, optimum acoustic and thermal insulation properties and optimised sealing.
- **A one-stop service:** installation deadlines of individual tradesmen no longer require coordination.
- **Individual:** style and material according to special request.
- **Important for the planning of new building:** architects can dispense with box lintels. The Weru roller shutter window is mounted as a unit in just one operation.

THE COMPACT SOLUTION (FE 99) – FOR RENOVATION AND NEW BUILD PROJECTS

① Integrated anti-push-up lock

The optional anti-push-up lock prevents the shutter from being pushed up.

② Can be used individually in new build and renovation projects

Flexible application: due to different box heights (175, 205 and 240 mm) and box depths (218 and 250 mm), use of plaster bases and mounting option for shutters in new build and renovation projects.

③ Integrated insect blind (optional) protects against unpleasant mosquitos

- Straightforward one-hand operation
- Insect blind is protected from soiling and the weather
- The insect blind can be retrofitted

④ Header insulating plates and top box covers

- Optional top box insulation available.
- No thermal bridges with roller shutter elements that protrude over the brickwork reveal
- Prevents condensation formation

⑤ High functional reliability due to interlinked roller shutter curtain

Made of aluminium or PVCu, in a range of different colours and slat sizes, with ventilation slots.

⑥ Quiet running thanks to special rubber profiles

⑦ Satisfies the most stringent requirements for thermal insulation and acoustic protection

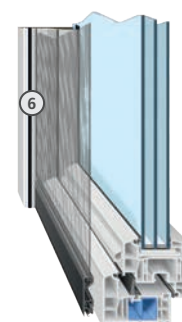
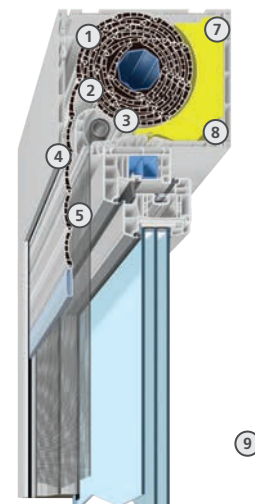
Special thermal insulation ensures good thermal and noise insulation values.
 U_{sb} -value: 0.75-0.83 W/(m²K), acoustic insulation value: Standard: R_{WP} = 37 dB, optional: R_{WP} = 44 dB.

⑧ Inspection from below and behind is possible

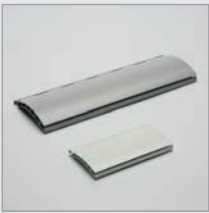
Individual modification to the building situation concerned.

⑨ Smooth operation for little effort

- Supplied with crank as standard for smooth and long-lasting roller shutter operation. In contrast to the belt:
 - No breaking of belt pull
 - Soiling can easily be removed
- More comfort with Weru roller shutter controllers.



CHOOSE YOUR INDIVIDUAL ROLLER SHUTTER CURTAIN



Made of PVCu



Made of aluminium



In different colours

THE RECESSED OR RENDER SOLUTION (FE 1) – FOR NEW BUILD AND LARGER CONVERSION PROJECTS

① **Satisfies the most stringent requirements for thermal insulation and acoustic protection**

Made from PUR hard foam, the box achieves good thermal and acoustic insulation values to max.: $U_{sb} = 0.82 \text{ W/(m}^2\text{K)}$,
Standard: $R_{WP} = 37 \text{ dB}$.

② **High functional reliability due to chain-link roller shutter curtain**

Made from aluminium or PVCu, available in range of colours, with ventilation slots and interlinked slats for optimum functional reliability.

③ **Integrated insect blind protects you from unpleasant biting insects**

All roller shutter box sizes can be optionally fitted with a separately operable insect blind, which is integrated, into the roller shutter box.

- Straightforward one-hand operation
- Especially tear resistant due to surrounding edging
- Height-adjustable
- Supplied with roller blind brake as standard

④ **Low-noise operation thanks to integrated rubber profiles**

PVCu roller shutter guide rails colour-matched to the window.
Special rubber profiles ensure low-noise operation.

⑤ **Optimum plaster bond**

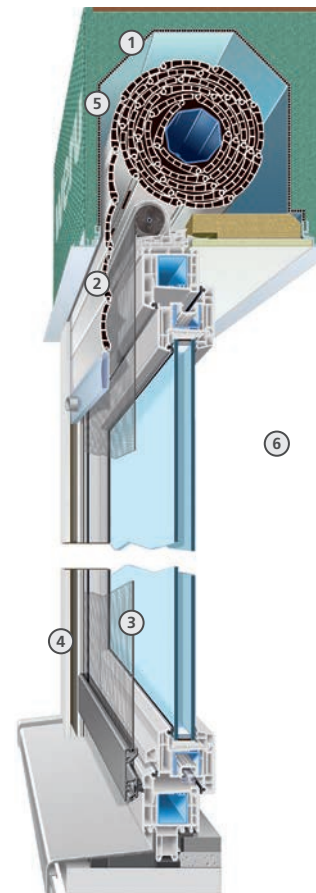
The specially developed, large-pored surface ensures optimum plaster or clinker bond.

- No plaster spalling
 - No cracking
- Box depths 245, 300 and 365 mm.

⑥ **Smooth operation for little effort**

Supplied with crank as standard for smooth and long-lasting roller shutter operation.

- In contrast to the belt:
- No breaking of belt pull
 - Soiling can easily be removed
- Weru roller shutter control systems ensure even greater comfort.



Roller shutters and venetian blind solutions

Visibility, light and thermal insulation par excellence

You can control the degree of light with our roller shutter and venetian blind solutions according to your individual requirements.

From daylight illumination with no glare, through to a complete room blackout, the choice is yours. The style and material of your individual roller shutter or venetian blind solution can of course be adapted to your individual requirements.

COMPREHENSIVE RANGE OF SLATS



Flat slat 80 mm



Folded-edge slat 80 mm



3-curve slat 70 mm
(also suitable for blackout)

THE FLUSH-MOUNTED SOLUTION (FE 1 – COLD STOP SYSTEM) – FOR RENOVATION AND NEW BUILD PROJECTS

① **Leak-tight termination prevents draught air**

The box, completely closed on the inside with external inspection, boasts outstanding tightness and is fully integrated into the brickwork. The part of the box located in the room is fully rendered.

② **Satisfies the most stringent requirements for thermal insulation and acoustic protection**

Made from PUR hard foam, the box achieves good thermal and acoustic insulation values to max.: $U_{sb} = 0.45 \text{ W}/(\text{m}^2\text{K})$, Standard: $R_{WP} = 37 \text{ dB}$.

③ **High functional reliability due to chain-link roller shutter curtain**

Made from aluminium or PVCu, available in range of colours, with ventilation slots and interlinked slats for optimum functional reliability.

④ **Integrated insect blind protects you from unpleasant biting insects**

All roller shutter box sizes can be optionally fitted with a separately operable insect blind, which is integrated into the roller shutter box.

- Straightforward one-hand operation
- Especially tear resistant due to surrounding edging
- Height-adjustable
- Supplied with roller blind brake as standard

⑤ **Low-noise operation thanks to integrated rubber profiles**

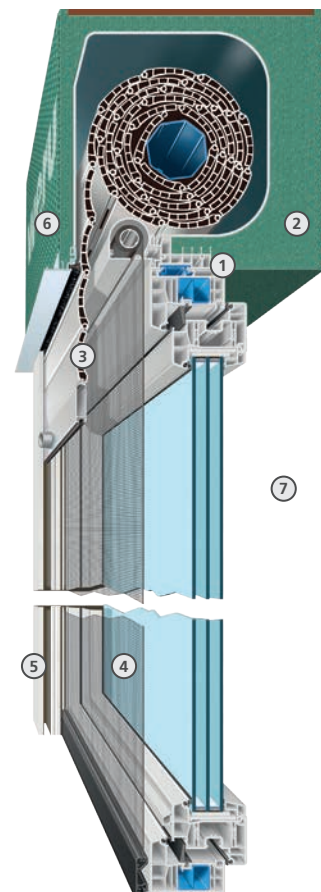
PVCu roller shutter guide rails colour-matched to the window. Special rubber profiles ensure low-noise operation.

⑥ **Optimum plaster bond**

The specially developed, large-pored surface ensures optimum render adhesion. – No plaster spalling, no cracking
Box depths 245, 300 and 365 mm.

⑦ **Smooth operation for little effort**

Supplied with crank as standard for smooth and long-lasting roller shutter operation. In contrast to the belt: – No breaking of belt pull
– Soiling can easily be removed
Weru roller shutter control systems ensure even greater comfort.





Blackout slat 73 mm



Blackout slat 90 mm



Blackout slat 93 mm

THE FLUSH-MOUNTED SOLUTION (FE 1 – VENETIAN BLIND) – FOR RENOVATION AND NEW BUILD PROJECTS

① Optimum heat protection

The venetian blind solution can reduce solar irradiation by up to 75 %. This significantly reduces the temperature on hot days and creates a pleasant room climate.

② Satisfies the most stringent requirements for thermal insulation and acoustic protection

Made from PUR hard foam, the box achieves good thermal and acoustic insulation values to max.: $U_{sb} = 0.29 \text{ W}/(\text{m}^2\text{K})$, Standard: $R_{WP} = 37 \text{ dB}$.

③ Long-lasting aluminium slats

Weru slats are manufactured from high-quality aluminium and are corrosion-resistant and durable.

④ Integrated insect blind protects against unpleasant mosquitos

All venetian blind box sizes can be optionally equipped with a separately operable insect blind, which is integrated into the roller shutter box.

- Straightforward one-hand operation
- Especially tear resistant due to surrounding edging
- Height-adjustable
- Supplied with roller blind brake as standard

⑤ Low-noise operation thanks to integrated rubber profiles

Venetian blind guide rails from aluminium, colour matched to the window. Special rubber profiles ensure low-noise operation.

⑥ Optimum plaster bond

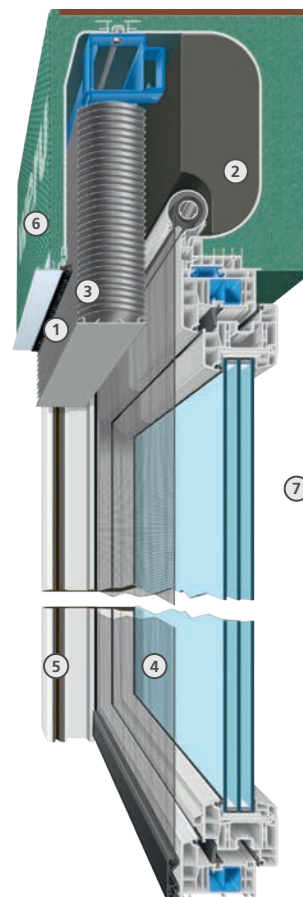
The specially developed, large-pored surface ensures optimum render adhesion.

- No plaster spalling
- No cracking

Box depths 245, 300 and 365 mm.

⑦ Smooth operation for little effort

Comes with motor as standard for easy operation. Weru control systems ensure even greater comfort.



Automatic roller shutters and venetian blind system

Modern light management at the push of a button

Nowadays, modern light management and new windows simply go hand in hand and, in situations where cumbersome folding shutters are still used or where curtains provide the option of either light or dark and nothing in-between, a change may well be long overdue. The right comfort solution for roller shutters or venetian blinds makes your life easier and allow you to create exactly the light atmosphere you want in your home. Now also available with innovative radio control on request.



THE SYSTEM SOLUTION (FE 2 – VENETIAN BLIND) FOR NEW BUILD AND REFURBISHMENT PROJECTS

① Optimum heat protection

The venetian blind solution can reduce solar irradiation by up to 75 %. This significantly reduces the temperature on hot days and creates a pleasant room climate.

② Satisfies the most stringent requirements for thermal insulation and acoustic protection

The venetian blind system solution, which can be integrated and concealed in the facade, is designed specifically for thermal insulation composite systems (TICS). Allowing the highest thermal and noise protection requirements to be met.

③ Durable aluminium slats for optimum lighting conditions

All useable Venetian blind slats are especially durable, they allow daylight to be regulated, provide privacy and ensure optimum lighting conditions.

④ Low-noise operation thanks to integrated guide profile

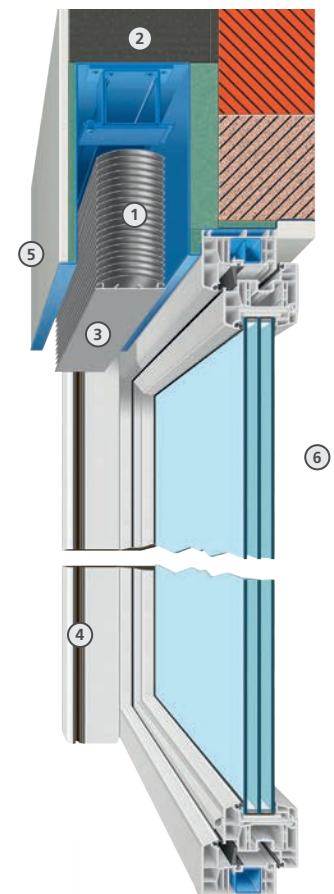
Venetian blind guide rails from aluminium, colour matched to the window. Thanks to its special geometry, the integrated guide profile ensures quiet running.

⑤ Optimum plaster bond

The plaster carrier with large-pored surface ensures optimum render adhesion.
– No plaster spalling
– No cracking
Panel heights 230, 260 and 300 mm.

⑥ Smooth operation for little effort

Comes with motor as standard for easy operation. Weru control systems ensure even greater comfort.





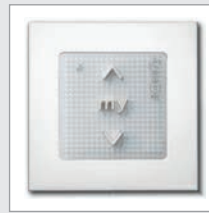
ServoLift-RTS

Raising and lowering of roller shutter/venetian blind with up/down button. The visually appealing control panel is available either in white or matt silver.



Timer switch option

You can program the daily up and down operation of the roller shutters/venetian blinds individually or in groups, e.g. based on sunrise and sunset times.



Radioline

The battery-operated radio wall-mounted transmitter can also be integrated into the customer's existing switch program via a 50-mm-x-50-mm adapter frame.



io-homecontrol

For programming and controlling your roller shutters or venetian blinds. From home or on the go. Simply via hand-held transmitter or optionally via PC, iPad or Smartphone.

ServoLift-RTS – for your added comfort

Prefer to operate your roller shutter/venetian blind via an up/down button? Then the basic version of the ServoLift-RTS is just what you need. The visually-appealing control panel acts as a remote control. As an option, you can also activate the ServoLift-RTS via a programmable timer switch. This then ensures that the up and down operation you can adjust to suit your individual requirements – with a different setting for each day of the week – is performed on a daily basis.

Radioline – for even more comfort and convenience

Is it difficult for you to imagine life without a remote control for your TV, car or garage door? Then why not also choose more comfort with your roller shutters or venetian blinds? The optional remote control allows you to conveniently control everything from your armchair. Or you can use the optional timer for the daily raising/lowering of your roller shutters or venetian blinds. The Cosmic program opens and closes the elements after the sunrise or sunset times.

io-homecontrol – maximum operating comfort thanks to intelligent networking

The io-homecontrol Internet remote control offers maximum living comfort, security and efficiency, for both existing and new buildings. The io-homecontrol allows you to open or close your roller shutters and venetian blinds via Smartphone, iPad or laptop – wherever you are in the world. You can also query the current position (opened or closed) of your roller shutters and venetian blinds.

EQUIPMENT FEATURES



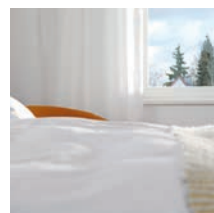
70 Design features

We give you a diverse range of colours, building forms and Georgian bars to allow you greater freedom of expression



74 Thermal insulation features

More comfort and lower heating costs with thermal insulation glass and glass spacers



YOUR LIFE. YOUR WINDOWS. YOUR DESIGN OPTIONS.

Those who take their own unique approach to life should also be able to give their windows an individual touch. The design scope of Weru windows is virtually unlimited. Pragmatic and modern or classical and romantic: in the end it's your taste that decides. The variety of forms, Georgian bars, colours and handles that come with Weru windows give you freedom to express your individuality.

The same also applies if you want to have an even greater degree of security, warmth, tranquillity or improved ventilation. The features that you can combine with the window system you have chosen are shown in the table on p.88, or simply ask your local Weru specialist dealer.

76 Ventilation equipment

Bring on the relaxed and feel-good atmosphere, with ventilation aids, permanent ventilators and controlled ventilators

86 Acoustic protection features

Peace descends: with soundproof glazing and soundproof profiles

82 Security features

No weak points for burglars and more peace of mind for you with safety glass, security hardware, security handles and the Weru secur surveillance system



Colours – entirely according to your personal taste

Select your favourite from more than 200 colour variants

You may wish to incorporate colourful accents, or maybe you would prefer to adopt a classic look as a reflection of your lifestyle. Weru gives you the choice. Between high quality PVCu and shiny aluminium fronts. Between foiled and painted surfaces. Whatever you decide, all colour coatings are exceptionally weatherproof and easy to clean. Above all, our broad range of colours ensures a harmonious interplay between your windows and your interior.



PVCU SURFACES – EXAMPLE OF COLOUR SCHEME

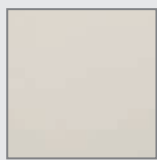
Up to 200 RAL classic colour shades are available with painted PVCu fronts. Or you may opt for a laminate using one of our many texture colours. You can choose between expressive wood and plain colour shades.



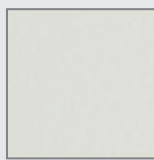
					
Mountain pine	Light oak	Grained white	Cream	Dark brown	Cherry blossom
					
Golden oak	Walnut V	Dark green	Monumental green	Steel blue	Rustic cherry
					
Rustic oak	Sienna pn	Light grey	Grey	Silver grey pearl structure	Quartz grey
					
Mahogany	Marsh oak	Slate grey finesse	Anthracite grey	Anthracite grey pearl structure	Basalt grey

ALUMINIUM SURFACES – PLAIN COLOURS

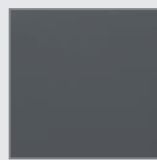
The aluminium facing not only provides enhanced weather protection, it also provides additional design scope. In addition to 15 mono-standard colours in matt, there are up to 200 RAL Classic in matt to choose from. The mono-standard colours are also available in the matt texture design.



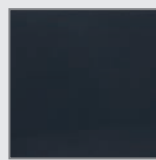
Cream white



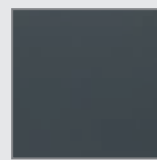
Traffic white



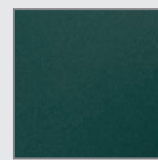
Basalt grey



Anthracite grey



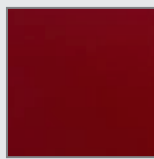
Iron grey



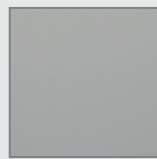
Green white pigment MS



Window grey



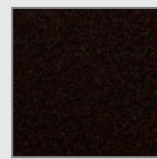
Purple red



White aluminium



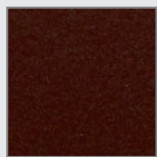
Grey aluminium



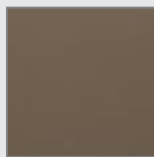
Dark brown



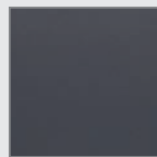
Grey white pigment MS



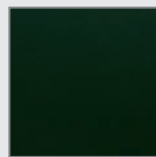
Chocolate brown



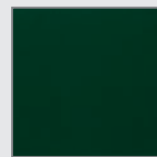
Beige grey



Slate grey



Fir green



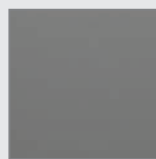
Moss green



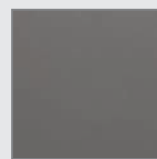
Silver grey metal effect MS

ALUMINIUM SURFACES – DB COLOURS

To achieve an even more impressive colour effect, there are three DB colours to choose from.



DB0701M



DB0702M



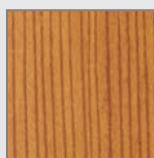
DB0703M

ALUMINIUM SURFACES – WOOD COLOURS

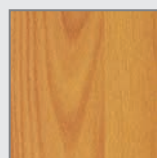
Aluminium doesn't have to look like aluminium. Why not combine the technical benefits of the aluminium facing shell with the advantages of a warm wood appearance using our nine wood structure colours.



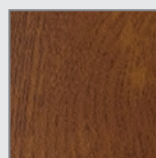
Douglas fir



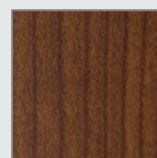
Larch



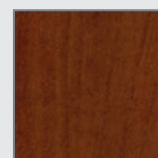
Swiss pine light



Golden oak



Walnut



Cherry

Your Weru specialist dealer will show you more colours.
Deviations from the original colours and materials are possible due to technical printing reasons.

Georgian bars and forms in abundance

We provide the framework for your creativity

Old, new, large, small – whatever the house of your dreams, Weru has the windows to match. From completely conventional rectangular windows through to modern slanted windows and windows of all special shapes and sizes – you can have exactly the window you want to reflect your own personal taste. The innovative profile appearance, matching Georgian bars and special style windows that underscore the individual charm of historic old buildings perfectly round off the range of products.



FOUR GEORGIAN BAR VERSIONS FOR MORE LIVELY WINDOWS

Georgian bars in the space between the panes

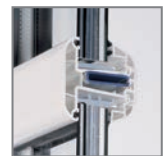
The smooth solution for pragmatists: enhanced appearance and cleanability. With a wide range of design options, such as a crossed or star-shaped arrangement of Georgian bars.



Pane-dividing Georgian bars

Those who have a close affinity with the classical style can opt for "real" Georgian bars.

Pane-dividing Georgian bars permit creative variants in addition to the variable arrangement, e.g. by using different colours or pane structures.



Surface-mounted Georgian bars

Even if your windows are small, you can still have the special appearance created by "glass dividing Georgian bars". These Georgian bars are mounted on the inside and outside of the glass pane and are narrow enough for sufficient light to flood into the room.



Georgian bar combinations

Externally mounted Georgian bars are ideal if you want to keep things simple yet retain stylistic integrity. If you choose this option, you can benefit from a three-dimensional appearance on the outside and also easy cleanability on the inside of the window.





Baroque



Classicism



Neo-Renaissance



Art Nouveau

STYLE WINDOWS ARE A TRIBUTE TO YOUR HOUSE

STYLISTIC AUTHENTICITY DOWN TO THE LAST DETAIL

The baroque window

"Barocco" is the old Portuguese jewellers' term for an irregular pearl. Accordingly, the baroque forms are decorative, dynamic and emotional: semi-circular arched or rectangular windows are brought to life by stylish Georgian bar arrangement and molded decorative elements, such as embellishments, impost strips, French type slave sashes and weather drips.

The neo-classicism window

Neo-classicism harks back to the simplicity and classical discipline of ancient times. So the neo-classicism windows are reduced to simplistic rational forms such as the crossbar window. Subtle ornamentation is applied to the upright posts, sill block and weather bar.

The neo-renaissance window

The era of "historicism" is characterised by references to and reinterpretations of the style of historic building forms. Typical elements are the rounded segmental arch and three-part windows with large lower panels and skylight with Georgian bar divisions, as well as decorative elements for mullion, sill block and impost, as well as weather drip and various capitals.

The Art Nouveau window

Art Nouveau architecture is characterised by asymmetric forms combined with linear ornamentation. In windows, this style is expressed in a host of shapes and Georgian bars, which are partially filled with ornamental glass or glass artwork.

Please consult your Weru specialist dealer to find out the available options for combining Georgian bars and systems. You will also receive expert advice on the renovation, refurbishment or modernisation of listed buildings.

Thermal protection glazing for more energy efficiency

More heat in the house, and greater savings in heating costs for you

Did you know that old leaky windows are without question among the worst energy guzzlers? This doesn't have to be the case. Activate your energy saving potential with Weru windows. Our windows achieve thermal insulation values that are coming increasingly closer to those of solid brickwork. This means that the stringent requirements of the German Energy Saving Ordinance (EnEV) can also easily be met. Thermal insulation measures for the glazing, glass spacers, PVCu profiles and reinforcement frames are key to achieving this result.

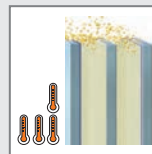


SO HOW MUCH THERMAL INSULATION DO YOU NEED FOR YOUR WINDOW?



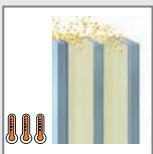
Weru-ExtraTherm

Double thermal glazing with argon gas filling and aluminium spacers: standard glazing with a U_g value of $1.1 \text{ W}/(\text{m}^2\text{K})$.



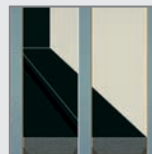
Weru-MegaTherm

Triple thermal glazing with two coated panes, krypton gas filling and stainless steel spacers: the thermal insulation option with a U_g value of $0.5 \text{ W}/(\text{m}^2\text{K})$.



Weru-KlimaTherm

Triple thermal glazing with two coated panes, argon gas filling and aluminium spacer: the thermal insulation option with a U_g value of $0.7 \text{ W}/(\text{m}^2\text{K})$.



Condense stop reduces condensation formation above the glazing bead due to highly-insulating PVCu glazing spacers. The "warm edge" ensures a pleasant living climate due to a consistent surface temperature.

GOOD TO KNOW

How can you recover energy with thermal insulation glazing?

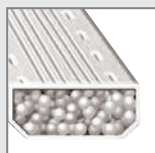
Weru insulating glass is coated with ultra-thin metal foil and allows the sun's short-wave light radiation through, but reflects the long-wave thermal radiation back into the living area. The inert gas fillings in the space between the two panes do the remaining work that is required to increase the degree of thermal insulation.

Why is a spacer worthwhile?

Small component, big effect. As a glazing edge compound, the spacer retains the existing inert gas in the space between the panes and prevents the ingress of water vapour.

New windows – it's worth it

Calculate how much you could personally save using the Weru energy saving calculator. It can be found at www.weruwindows.co.uk



Aluminium spacers are resistant to temperature, UV and ageing, absorb dynamic stresses and, with a length-specific thermal transmission coefficient of 0.064 W/(mK), also have excellent thermal insulation properties.



Stainless steel spacers consist of more effective heat insulating material with a length-specific thermal transmission coefficient of 0.048 W/(mK) with triple thermal protection glazing. This minimises the risk of condensation forming above the glazing bead.

Glazing	Glass configuration	Glass spacer	Ψ_g length-related thermal conductivity coefficient in the spacer	U_g value of glazing (DIN EN 673)	g value of glazing (DIN EN 410)	U_f value of frame (DIN 12412-2)	U_w value (DIN EN ISO 10077)*
Weru-ExtraTherm	4/16A/4	Stainless steel ¹	0.051 W/(mK)	1.1 W/(m ² K)	60 %	0.9 W/(m ² K)	1.16 W/(m ² K)
Weru-KlimaTherm	4/12A/4/12A/4	Stainless steel ¹	0.048 W/(mK)	0.7 W/(m ² K)	47 %	0.9 W/(m ² K)	0.88 W/(m ² K)
Weru-MegaTherm	4/12K/4/12K/4	Stainless steel	0.048 W/(mK)	0.5 W/(m ² K)	47 %	0.9 W/(m ² K)	0.74 W/(m ² K)

* The U_w value is based on the standard dimension 1.23 m x 1.48 m – standard frame and sash profile with ThermoPlus equipment.

¹ Additional equipment.

Ventilation aids for a healthy living climate

Breathe deeply, experience fresh air, a natural living pleasure

Did you know that even rooms have to breath? Stale air, odours and moisture can be more than just unpleasant for us humans. Over the long term, they can also reduce the value of your living rooms and the building fabric. Air exchange used to be automatically, as it were, via small gaps and cracks. In times of energy-saving leak-tight construction, we have to assist the necessary exchange of air: by ventilating correctly. No problem with the small or large ventilation aids from Weru.



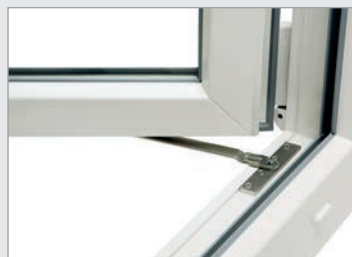
PRACTICAL VENTILATION AIDS AND TRIED-AND-TESTED REGULATING VENTILATOR

Open the windows – this is certainly the most effective and fastest way to achieve a pleasant living climate in your rooms. Weru can support you here and supplies a range of ventilation aids to ensure a well-regulated supply of fresh air.



Multiple gap ventilators

This hardware component ensures regulated ventilation. While windows without multiple gap ventilation have a restricted tilt position, the window sash with this component can be tilted open in various stages. Locking the sash at the desired opening width prevents the window from slamming shut.

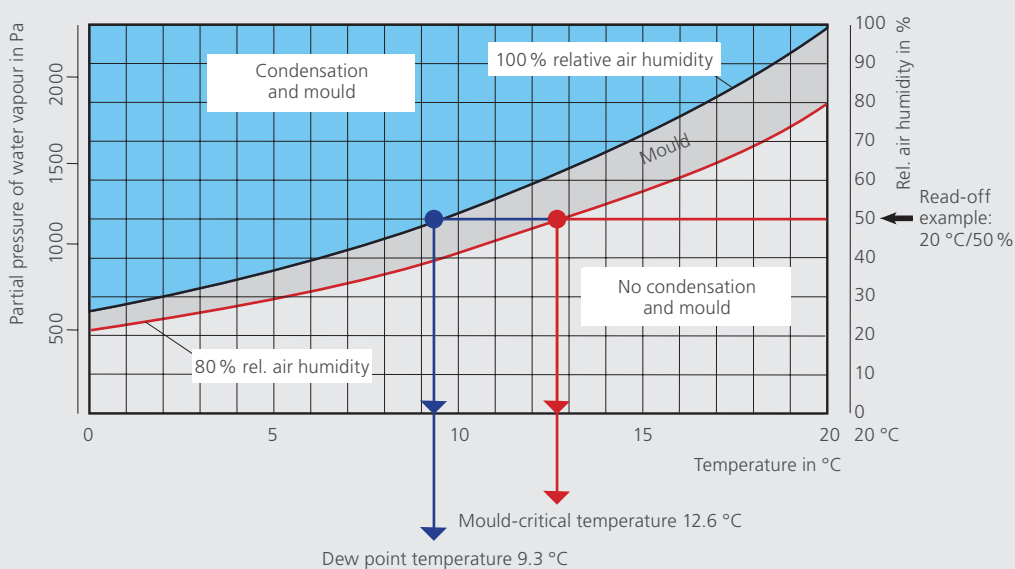


Slam stop

Opening your windows wide for intermittent ventilation while leaving the internal doors open produces a draught. Even in this case, the variable opening width restriction reliably holds the window sash and prevents it from suddenly slamming shut.

The temperature and moisture content of the air has a significant effect on the living climate

Air can absorb and store water in the form of steam and subsequently release it as condensation. The maximum quantity of water vapour which can be absorbed depends on the air temperature. One cubic metre of air at 0 °C, for example, can absorb 5 g of water vapour, as opposed to 17 g/m³ at 20 °C. This maximum quantity of water vapour which can be absorbed corresponds to a relative humidity of 100 % in each case. Conversely, when air cools it eventually reaches the so-called dew point. Condensation forms, usually in places such as room corners or window reveals close to the (colder) surfaces of external components. The moisture content of living spaces can be influenced by correct ventilation, and the surface temperature at the external components is determined by the thermal insulation in the structure.



Relationship between dew point temperature and mould-critical temperature

Systematic, convenient ventilation

First-rate climate using manual ventilators or permanent ventilation

With Weru windows, you have perfect control over your fresh air requirements. Even automatically if you want. Additional components ensure regular air exchange in your rooms. These ventilation devices are particularly suitable for rented apartments. Enough fresh air always enters the apartment through the integrated automatic ventilation system, no matter how the occupant controls the ventilation. This prevents moisture damage, e. g. mould.



INFINITELY VARIABLE MANUAL VENTILATION



with sliding control



with pollen filter

Weru-Fresh ventilator

The fresh air inlet of the Weru Fresh ventilator can be adjusted individually and infinitely via a sliding mechanism.

The system can achieve an impressive flow rate of 16 m³/h at 4 Pa.

The Weru Fresh ventilator is particularly suitable for single-family dwellings and multi-storey new buildings and refurbishments.

A version of this ventilation system with acoustic protection and integrated pollen filter is also available. This means that problem-free ventilation is possible for persons with allergies or residents of streets with heavy traffic.

Well-regulated ventilation is measurable

The air exchange rate refers to the proportion of room air that is exchanged per hour by means of ventilation. This is determined by measuring the flow rate (m^3/h) with an air pressure of 4 Pa. The higher the air exchange rate, the lower the relative air humidity in general, and the lower the risk of mould or other moisture damage occurring.

FRESH AIR FOR YOUR COMFORT: PERMANENT VENTILATION SYSTEMS



Regal-Air

The Regal-Air ventilation system is a self-regulating system. It is installed in the upper section of the window and can be retrofitted if required.

The fresh outside air is fed in from the side via the constricting seal in the window rebate. The air already preheated in normal operation between the sash and the frame rises up into the room via the ventilator below the ceiling. If there is a storm or strong wind, the system remains automatically closed to ensure that no draught effects whatsoever occur. The flow rate of the Regal-Air is $2.1 \text{ m}^3/\text{h}$ at 4 Pa. Additional benefit of the Weru window rebate ventilator: it shuts out noise, the device can achieve high sound insulation values up to acoustic protection class 4 (= 42 dB).



Weru-Air Comfort

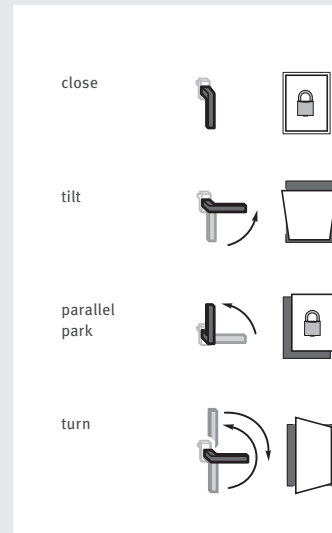
Weru-Air Comfort – this intelligent ventilation system ensures a constant supply of fresh air whatever the weather.

The air from outside flows upwards via recessed seals in the rebate, and enters the room interior pre-heated via the special seal. In strong winds, the seal pushes against the opening gap to restrict the amount of air flowing in. So even in this situation, basic ventilation is guaranteed and draught effects are avoided. At $2.9\text{--}3.2 \text{ m}^3/\text{h}$ at 4 Pa, the Weru-Air Comfort system achieves an even higher volume flow than Regal-Air when the seal is open. The ventilation system is not visible from the inside or the outside, even when the window is open. Weru-Air Comfort reaches high acoustic insulation values up to acoustic protection class 4.

Innovative Weru ventilation technology for today and tomorrow

Fresh concepts for fresh air, security and energy-efficiency

Is it possible to leave the house with the window open – with no security risk whatsoever? Incoming fresh air at 16–17 °C with an outdoor temperature of –10 °C? Why not. Innovative Weru window technology means nobody has to compromise. Not on thermal protection, on security and certainly not with ventilation.



VENTILATE WHENEVER YOU WANT

Safe&Go ventilation

Until now, if ventilation was required the windows were either tilted or fully opened. The innovative Safe&Go ventilation system allows the window sash to be parked parallel to the window frame at a distance of 6 mm. What makes this feature so special is that the window is locked on all sides in the ventilation position and is assessed as closed by the VdS (independent institute in Germany for security and fire protection). This means you can leave your windows "open" to ventilate when you go out shopping knowing that your home is secure.

- Rooms can be ventilated when windows appear to be shut
- Increased burglary deterrence up to security class RC 2 despite the window being open
- No draught effect and the window does not slam shut

Safe&Go Automatic

How can convenient ventilation be made even easier? By combining the new Safe&Go window hardware with a motorised control unit. The window then loses and opens as needed, depending on the room climate or pre-programmed via the timer function. Several windows can be controlled/activated simultaneously at the drive directly or via remote control.



Safe&Go ventilation Safe&Go Automatic

When the Safe&Go ventilation system is in operation, the window offers the same degree of burglary protection as if it were closed.

Here's how the Safe&Go ventilation system works

Thanks to the innovative window hardware, the window can not only be turned and tilted, it can also be moved into a parallel position and parked with a narrow ventilation gap. The all-round narrow air gap of 6 mm between frame and window sash creates natural, gentle ventilation. Used warm air can escape from the top of the window, while fresh air flows in from below.



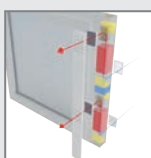
INTEGRATED VENTILATION SYSTEM WITH HEAT RECOVERY

Weru AeroTherm ventilators*

Weru AeroTherm – the integrated ventilation system with heat recovery – reconciles two previously conflicting objectives: ventilation and lower heating costs. The Weru AeroTherm ventilator works on the principle of regenerative heat exchange. The ceramic storage material in the profile is at the centre of the air flow produced by an EC motor with axial fan. By means of a reversible air flow, the ceramic absorbs the thermal energy from the extracted room air and returns it to the incoming outside air. It does this with an unprecedented 90 % efficiency. The Weru AeroTherm ventilator achieves a flow rate of 15 m³/h. The integrated activated carbon filter reduces the pollutants present in the air, an additional pollen filter is also available. The Weru AeroTherm ventilator is operated via a toggle switch.

The AeroTherm ventilator is this effective

Just what this incredible temperature efficiency of 90 % means can be shown by a straightforward example calculation. At an outside temperature of -10 °C and a room temperature of 20 °C, the fresh air heated in the Weru AeroTherm ventilator has a temperature of 17 °C.



Weru AeroTherm ventilators

- Efficient: Heat recovery with 90 % efficiency
- Environmentally-friendly: Saves energy and reduces your heating costs
- Clean: integrated filters ensure that the room air is low in pollutants

*Available for AFINO window systems.

Security hardware and glazing – should the worst happen

Additional security in new build and modernisation projects

Did you know that our tested and certified products are on the list of recommended burglary-deterrent components, windows and doors published by the Criminal Investigation Department in Germany? This is solid proof that Weru windows and patio doors are ideal for keeping burglars and other intruders out.

Thanks to stable profiles, burglary-deterrent hardware, lockable handles and special safety glass.



MECHANICAL RELIABILITY – THE BASIS FOR EFFECTIVE BURGLARY PROTECTION

The German CID established, by analysing burglaries, how the perpetrators operate and how they get past the windows. The hardware – i.e. the mechanical functional component that opens and closes the window – is a particular ingress point. In some cases, burglars also try to break the window pane and then open the window using the handle.



The multistage hardware range by Weru

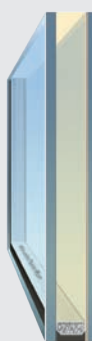
Weru offers burglary deterrent hardware with several security levels depending on which level of protection is required, starting with the Weru standard hardware. The Weru standard hardware offers a greater level of burglary deterrence through the three security corner deflections with mushroom cam lock and rearward-engaging locking pieces on one side.

Hardware versions RC 1, RC 2 and RC 3 provide additional protection and certified security.

Resistance classes RC 1, RC 2 and RC 3 defined in the European standards DIN EN 1627–1630 can be attained using appropriate additional equipment and with corresponding installation.

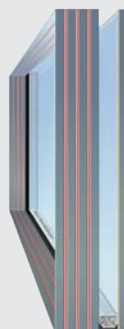
YOUR SECURITY WINDOWS – COMPLETE WITH BURGLARY-DETERRENT GLAZING

It's difficult to get anything past Weru burglary-deterrent glazing! This glazing is in a class of its own. The system is based on two panes of insulating glass. Depending on the security requirements, one or both panes is replaced by special glass: toughened safety glass or laminated safety glass. The security class can be increased by varying the characteristics and thickness of the panes.



Toughened glass

"Prestressed glass" is tougher than conventional insulating glass. The incredible high resistance to blows, impacts and temperature changes is achieved by a special manufacturing process that exposes the glass to high compressive and tensile stresses. The pane is ball impact resistant from a thickness of 8 mm. If the pane is actually destroyed, it breaks into blunt-edged fragments. The special breaking behaviour of safety glass offers double protection: firstly against the forceful impacts and secondly against injury.



Safety laminated glass

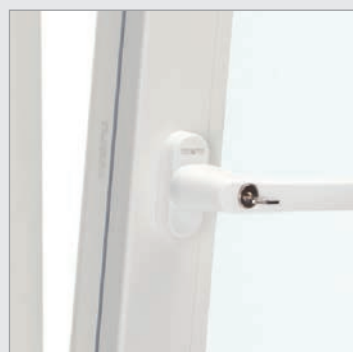
The glass panes are bonded to an extremely tough, tear-resistant plastic film that not only ensures the glass is very unlikely to break, it also ensures that the fragments adhere firmly to the film even if the pane breaks. Even then, it would take a lot of time, effort and tools to penetrate the pane. A higher security class can be achieved by increasing the number of plastic films and glass panes.



Lockable handle – self-locking handle – standard handle

If the worst comes to the worst, the handles themselves will cause an obstruction

While standard handles are sufficient for barely accessible top floors, Weru offers two burglary deterrent handle designs for ground floor windows: the self-locking handle prevents the hardware from being pushed up. The lockable handle also makes it more difficult for intruders to open the broken window by reaching in from outside.



Child lock

Child-proof lock – safe is safe

Especially for families with toddlers, we recommend the additional protection against unwanted opening by children. The special tilt-before-turn mechanism ensures that children can only tilt the window and not open it. The window can only be opened fully with a key.

Weru secur – the intelligent surveillance system

Your personal security system: your window

Hard-earned wealth, a rise in the population's average age and an increase in burglary rates have made the need for security more pressing than ever. You should feel completely safe when you are at home. This is why Weru has taken steps to further improve the already high security standard of its windows. Weru secur windows with intelligent surveillance system are now available.



Weru secur – the security window with alarm function

Weru secur windows have an electronic unit mounted in the window sash, which automatically monitors the window without you having to program a control unit or remember a PIN code. The Weru secur window is active from the moment it is installed by the Weru engineers. You do not have to do anything yourself.

MAXIMUM SECURITY WITH NO FUSS

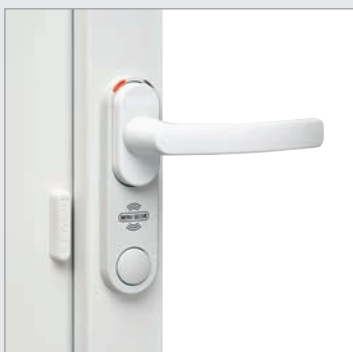
- No need to prime the surveillance unit
- It is impossible to forget to activate or deactivate the alarm
- No false alarm due to incorrect handling
- No key or combination of numbers required

Surveillance system or alarm system?

Our Weru secur surveillance system is a standalone solution for each individual window. Similar to a vehicle alarm system, its main purpose is to deter, by its very presence and also by the piercing acoustic signal it emits in case of a break-in.

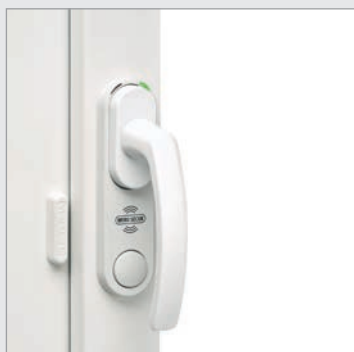
Here's how Weru secur works

The surveillance system checks the position of the window sash and window handle. If the sash abuts and the handle is pointing downwards, the integrated alarm system is primed automatically. If, in this state, an attempt is made to pry up the window from outside, the system responds immediately by triggering an acoustic alarm. The alarm unit on the window handle emits an extremely loud piercing alarm tone. This normally lasts at least two minutes. The alarm cannot be deactivated during this time. If the window is closed once the alarm has been triggered, the alarm is cancelled automatically.



Red LED lights up

- Insecure condition
- Window is not closed correctly
- The alarm is not active



Green LED lights up

- Secure condition
- Window is properly closed
- Alarm is active

Opening and closing indicator

Two light-emitting diodes (LEDs) indicate when the window is closed and whether it has been properly closed and is being monitored in this state. This means you always have the peace of mind of knowing that your window is definitely locked.

Note: the surveillance unit is powered by a leak-proof lithium button cell battery with a service life of approximately two years. Four weeks before the battery is fully discharged, a visual and acoustic signal is output to indicate that it needs to be replaced. Weru secur is battery-operated, which means it also works in case of a power failure.



The Weru secur glass break alarm

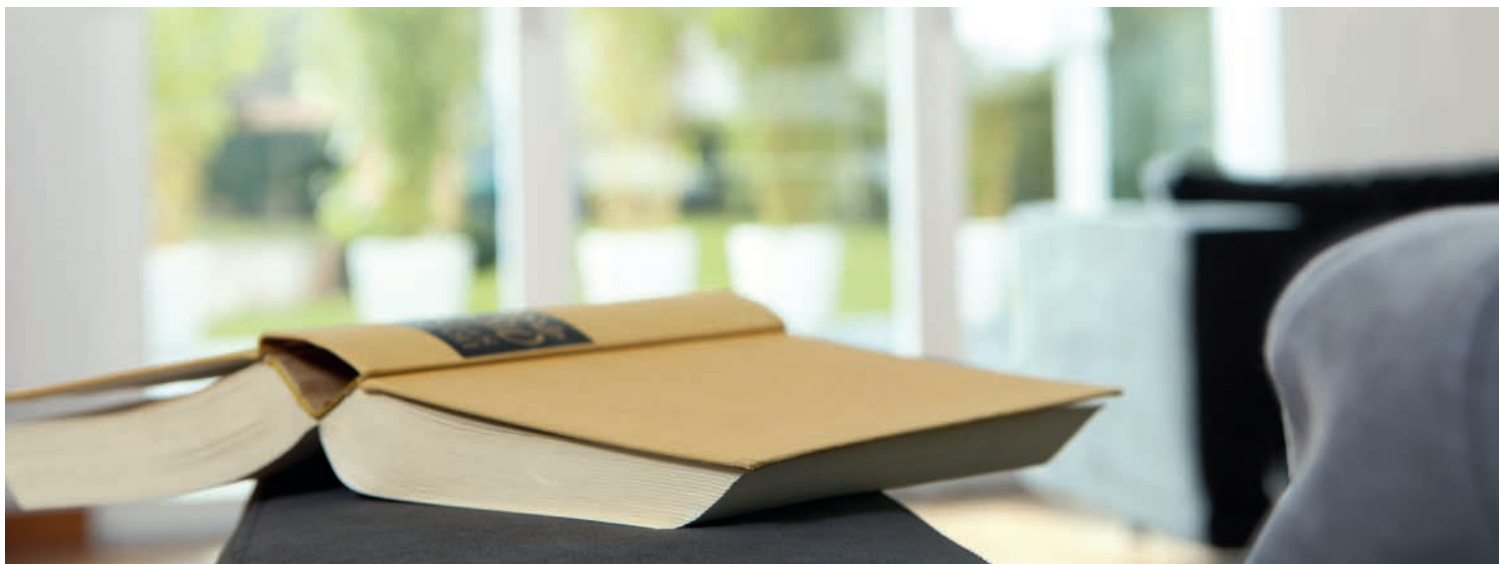
This further increases the security of your window if required. An electronic glass break alarm monitors the pane of glass and responds to vibrations and the glass breaking frequency.

The alarm will only be triggered if both conditions are met at the same time. This prevents the alarm from being triggered unnecessarily by a ball striking the window for example, or the noise of a bunch of keys, a storm or other disturbances (supersonic aircraft, etc.). The alarm system is also powered by a lithium button cell battery.

Soundproof glass – keeps the noise out

Select your personal level of soundproofing

Give yourself some peace and tranquility. This is becoming more important than ever in our increasingly hectic daily life. Especially because noise nuisance is increasing at an alarming rate. Road traffic in particular is jarring on the nerves. Yet more and more people are also finding aircraft and residential noise a nuisance. But you don't have to put up with it: Weru soundproofed windows give noise-plagued house and flat owners rejuvenating peace and tranquility.

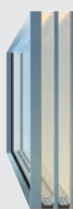


FOUR EXAMPLES OF ACOUSTIC PROTECTION GLAZING SYSTEMS FROM WERU



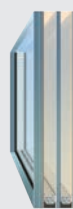
Weru-KlimaTherm Phon

Configuration:
6/12/4/12/4
Sound reduction
index: 36 dB
Filling: argon



Weru-KlimaTherm Extra Phon

Configuration:
10/12/4/12/4
Sound reduction
index: 38 dB
Filling: argon



Weru-KlimaTherm Extra Phon SF

Configuration:
9SF/12/4/12/10
Sound reduction
index: 45 dB
Filling: argon



Weru-KlimaTherm Extra Phon SF 2

Configuration:
13SF/12/4/12/9SF
Sound reduction
index: 48 dB
Filling: argon

The insulation performance of insulation glass is significantly impacted by the following factors:

- Weight (mass) of pane: thicker panes are heavier. The high mass of the pane prevents it from vibrating, and the impinging sound waves are reflected. The heavier the pane, generally the higher the acoustic insulation value.
- Pane configuration: the more asymmetric the thickness of the outer and inner pane, the higher the acoustic insulation value.
- Distance between panes: the wider this is the higher the sound insulation value will be. Too wide an interspace, however, reduces thermal protection.

Weru also exploits the effect of the pane's rigidity (the more resilient a component, the higher the acoustic insulation value) and uses laminated glass with acoustic insulation films. Creating a resilient connection between the two individual panes combines high pane mass and low flexural rigidity. This significantly improves the acoustic insulation in the lower and upper frequency range.

Window systems and equipment at a glance

Your hardware combination options at a glance

You are reading this page for one of three reasons. One: You have already chosen a window system. In this case, you will find your equipment options here at a glance. Two: You have not yet decided, but would like to see specific details. In this case, the able will help you search for the right window system. Three: You start all good books at the end. In which case we recommend, as an exception, you start at the beginning.

Equipment	Bespoke premium windows				All-round window solutions	
	AFINO-art	AFINO-top	AFINO-tec	AFINO-one	Castello	Sereno
Profile system						
Material	AL/PVCu/GRP	AL/PVC	GRP/PVCu	PVCu/PVCu	PVCu	PVCu
Depth (mm)	89	89	86	86	70	70
Sealing system	MD/AD	MD/AD	MD/AD	MD/AD	AD	AD
Maximum sash size of window (mm)	1300x1700	1500x1550	1600x1700	1500x1550	1500x1400	1500x1400
Maximum sash size of balcony door (mm)	1000x2300	1200x2500	1300x2600	1200x2500	1200x2500	1200x2500
Thermal insulation						
U _w value in W/(m ² K) up to	0.68	0.68	0.68	0.68	0.76	0.83
ThermoPlus profile	■	■	■	■		
Condense stop	■	■	■	■	●	●
Thermal insulation glass Ug = 1.1 W/(m ² K)		●	●	●	●	●
Thermal insulation glass Ug = 0.7 W/(m ² K)	●	■	■	■	●	●
Thermal insulation glass Ug = 0.6 W/(m ² K)	■	■	■	■	●	●
Thermal insulation glass Ug = 0.5 W/(m ² K)		■	■	■		
Thermal insulation glass Ug = 0.5 W/(m ² K)		●	●	●	●	●
Security						
Security hardware for RC 1	■	■	■	■	●	●
Security hardware for RC 2	■	■	■	■	●	
Security hardware for RC 3			●		●	
Security reinforced steel fittings	■	■	■	■		
Load capacity of hinges (kg)	130	130	130	130	100	100
Child lock	●	●	●	●	●	
Standard handle	●	●	●	●	●	●
Self-locking handle	●	●	●	●	●	●
Lockable handle	■	■	■	■	●	●
Safety glass on one side TSG	●	●	●	●	●	●
Safety glass on both sides TSG	●	●	●	●	●	●
Safety glass on one side LSG	●	●	●	●	●	●
Safety glass on both sides LSG	●	●	●	●	●	●
Surveillance system	●	●	●	●	●	●
Glass break alarm	■	■	■	■	●	●
Pry-stop	■	■	■	■	●	

Especially interesting for you: the AFINO package pages (page 30 onwards). We have already summarised for you the most important equipment for more security, more energy efficiency and more operating convenience. To attractive package prices. Your Weru specialist dealer will of course any further questions you might have.

Equipment	Bespoke premium windows				All-round window solutions	
	AFINO-art	AFINO-top	AFINO-tec	AFINO-one	Castello	Sereno
Soundproof glazing						
Acoustic insulation value 36 dB	●	●	●	●	●	●
Acoustic insulation value 38 dB	●	●	●	●	●	●
Acoustic insulation value 45 dB		●	●	●	●	●
Acoustic insulation value 48 dB		●	●	●	●	●
Ventilation systems						
Multi-gap ventilation	●	●	●	●	●	●
Slam stop	■	■	■	■	●	●
Weru-Fresh ventilator	●	●	●	●	●	●
Regal-Air	●*	●*	●*	●*	●	●
Weru-Air Comfort	■	■	■	■	●	●
Safe&Go ventilation	■	■	■	■	●	
Safe&Go Automatic	●	●	●	●	●	
Weru AeroTherm ventilators	■	■	■	■		
Colours						
White			●	●	●	●
Wood texture and mono-structure colours			●	●	●	
RAL painted			●	●	●	
Al matt texture colours	●	●				
Al matt colours	●	●				
Al RAL colours	●	●				
Al DB colours	●	●				
Al wood colours		●				
Georgian bars						
In the cavity between the panes	●	●	●	●	●	●
Pane-dividing Georgian bars		●	●	●	●	●
Surface-mounted Georgian bars			●	●	●	●
Georgian bar combinations		●	●	●	●	●

- Package element Protect
- Package element Energy
- Package element Comfort
- Available

Not all equipment options can be combined with one another. Your Weru specialist dealer will be happy to advise.

* Only for rebate sealing systems.

BRAND SERVICE

YOUR PERSONAL DECISION FOR
OUTSTANDING QUALITY AND
EXCEPTIONAL ADVICE



THE LEADING WINDOW BRAND FOR YOUR PARTICULAR REQUIREMENTS

Go for Weru, the market's leading supplier of PVCu windows in the residential sector. It says a lot about you. ...And about us. After all, almost no other window and door manufacturer offers you such a professional, complete package that covers every requirement. By continuously improving and developing our products, we are ensuring today that your specific window and door requirements will continue to be met in the future.

Experience & innovation

With Weru windows and doors, you are buying pure durability, and deciding not only on the best product quality but also on a solid company with many years' experience. We are never satisfied simply with the standards we have reached. But what does all this mean for you? Your Weru products always represent state-of-the-art technology, while giving due consideration to the latest requirements, such as thermal insulation and acoustic protection, burglary deterrence and a sophisticated design.

Competence & individuality

Thanks to our exceptional know-how, we will meet even your most exacting personal requirements. No matter whether shape, colour or equipment of your window and entrance door: we give you endless choices to make your visions a reality. We build each and every window and door according to your requirements. To cutting edge technology, and by a master's hand. After all, you buy windows and doors not just for three years, but for three decades!



50 YEARS
Weru PVCu
windows

170 YEARS
Weru building
components

QUALITY
made
in Germany

Weru epitomises expert tailor-made solutions. With more than 170 years' experience, we manufacture over 500,000 windows to our customers' specific requirements every year in Germany (at our production sites in Rudersberg and Triptis). These products are, of course, RAL-tested and ift-certified.



SERVICE

BY THE WERU SPECIALIST DEALER
WE ARE THERE FOR YOU – WHEREVER AND WHENEVER YOU NEED US



PROFESSIONAL ADVICE AND COMPREHENSIVE SERVICE AT YOUR WERU SPECIALIST DEALER

Weru is the only window and door manufacturer with an exclusive sales network, consisting of 750 carefully selected authorised Weru specialists in Germany and Europe – so you will be sure to find a specialist near you. Here, you can speak to one of our professional advisors who can tell you more about Weru and the Weru systems. These people will spend time with you and help you make the right decision for your needs. They can competently answer all your questions. They will draw up a detailed offer for you, carry out a survey at your house and plan the windows and doors according to your requirements. Just a few weeks later, will install your new windows and doors professionally, quickly and cleanly. We won't leave until you are completely satisfied. Your Weru specialist is available at any time to give you aftersales advice.



Competent advice, detailed planning, timely delivery, professional installation and comprehensive service is never far away, and very easy to find using our specialist search at www.weruwindows.co.uk



PROFESSIONAL INSTALLATION

YOUR INSTALLATION IN SAFE HANDS



HOW WELL YOUR WINDOWS AND DOORS PERFORM DEPENDS ON HOW WELL THEY ARE INSTALLED

Your new windows can only prove their worth in terms of reduced energy consumption and reduced CO₂ emissions with the accompanying reduction in heating costs and can only provide optimum acoustic protection if they are installed correctly by trained installers. This is why our products are only installed for you by a qualified Weru specialist dealer. They pay close attention to the structural conditions of the building, adequate stability and the use of reliable fastening and sealing materials. From planning to professional construction.



Professional installation

Whoever plans your windows can also install them quickly, cleanly and professionally to state-of-the-art technology. This is a fact that ensures exceptional care is taken!

RAL quality mark for complete windows includes: certified profiles, seals, hardware, panes and production





ADDITIONAL WERU PRODUCTS

FOR EVERYONE WHO WANTS MORE THAN JUST WINDOWS

Find out more about the full Weru range

- PVCu, aluminium and PVCu/aluminium windows
- Roller shutter windows with or without motorisation and insect blind
- Venetian blind windows with motorisation and optional insect blind
- Patio and balcony doors with different opening variants
- Front door systems made from aluminium and PVCu
- Projecting roofs with wide range of roof shapes and colours



Weru aluminium and PVCu doors

Two materials, one thing in common: quality. No matter of whether you prefer aluminium or PVCu, the virtually unlimited freedom of design means you will be sure to find the ideal colours, shapes and details for your dream entrance. Also with a matching projecting roof if required.



For more detailed information on all Weru quality products, visit www.weruwindows.co.uk or contact your Weru specialist.

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