

**Internorm®**



**WINDOWS**  
Highlights of Architecture



AT Eco Windows & Doors

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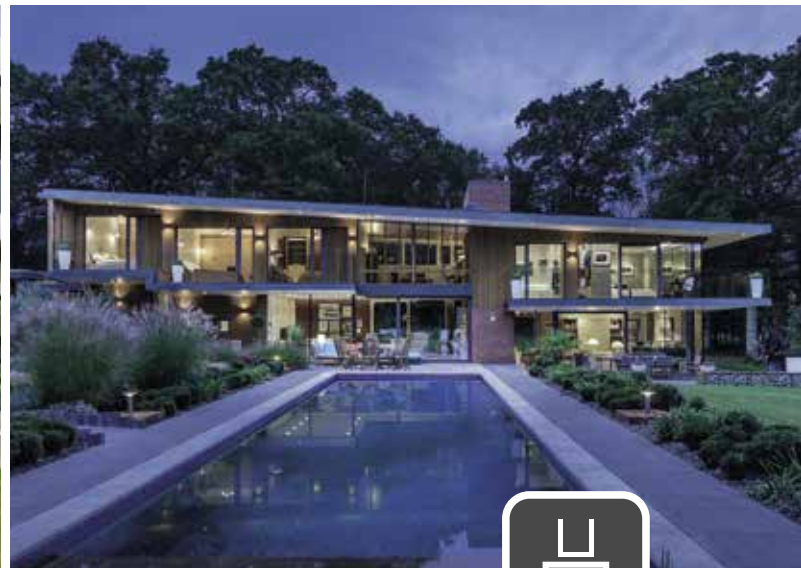
# DesignStyles

Highlights of architecture



## studio

Follows a very clear line in its design. This style with its cutting edge shapes and diminished appearance gives a contemporary and unconventional feel.



## home pure

Meets the demands for a modern and straight-lined style creating bright living environments.





## home soft

Feels friendly and cozy and offers many design varieties – from elegant to playful.



## ambiente

Stands out with its traditional shapes – timeless classical and elegant. Its composition is elaborately designed and conveys a homely feel.

## WINDOWS AND DOORS FOR YOUR DREAM HOUSE

Architecture is as diverse as the people who live in it. The style of a house is not only shaped by building design, especially windows and doors also underline its character considerably.

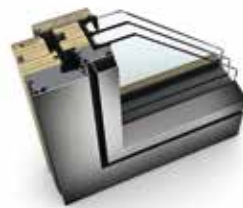
You can fulfill your personal idea of living with Internorm windows and doors. Internorm is offering you a suitable solution.

To help you find the window and door solutions which fulfill exactly your requirements for architecture, design and comfort among the multitude of possibilities in shape, colour and material, you can choose from the different Internorm design styles: studio, home pure, home soft and ambiente.

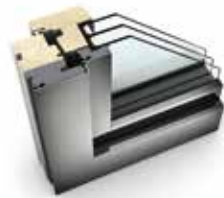
TIMBER AND TIMBER/ALUMINIUM WINDOWS



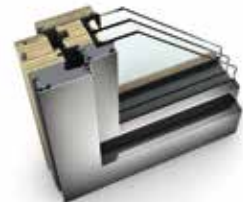
**HF 310**



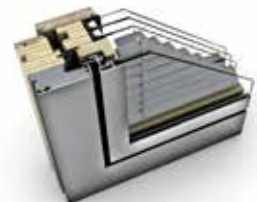
**HF 410**



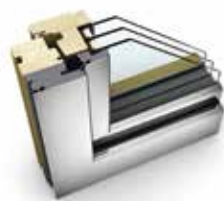
**HF 310**



**HF 410**



**HV 450**



**HF 310**



**HF 410**



**HV 450**



**HF 310**



**HF 410**



Internorm UK

**Internorm**



UPVC WINDOWS



studio



**KF 320**



**KF 520**



home pure



**KF 410**



home soft



**KF 310**



**KF 410**



ambiente



**KF 310**



**KF 410**

UPVC/ALUMINIUM WINDOWS



**KF 320**



**KF 410**



**KF 520**



**KF 310**



**KF 410**



**KV 350**



**KV 440**



**KF 310**



**KF 410**



**KV 440**



**KF 310**



**KF 410**








**KV 350**



**KV 440**

# HF 310 TIMBER/ALUMINIUM WINDOW

## PROPERTIES

	<b>Thermal insulation</b>	U <sub>w</sub> as low as 0.62 W/(m <sup>2</sup> K)
	<b>Sound reduction</b>	up to 46 dB
	<b>Security</b>	RC1N, RC2
	<b>Locking</b>	concealed
	<b>Construction depth</b>	85 mm

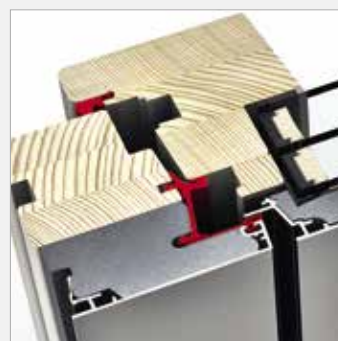
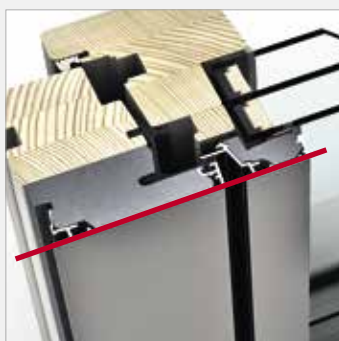
<b>Design style</b>	studio home pure home soft ambiente
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**I-tec** Glazing



studio

**TU Graz**  
PASSIVHAUSTAUGLICH  
NACH RICHTLINIE WA15:8  
Passive house certified



### HF 310






A combination of timber/aluminium and highly insulating thermal foam in between the frame & sash. The HF 310 provides excellent thermal insulation values, natural timber refined with subtle paints, weather-resistant aluminium on the outside render the HF 310 the most attractive option among the timber/aluminium windows. Due to the same, flush design of the aluminium clad, HF 310 can be combined with UPVC window KF 410. All around bonding of the glass pane (I-tec glazing) ensures excellent stability and security protection. Triple continuous gaskets protect the interior area from exposure to the rain.



# HF 410 TIMBER/ALUMINIUM WINDOW



## PROPERTIES

 <b>Thermal insulation</b>	$U_w$ as low as 0.64 W/(m <sup>2</sup> K)
 <b>Sound reduction</b>	up to 45 dB
 <b>Security</b>	RC1N, RC2
 <b>Locking</b>	concealed
 <b>Construction depth</b>	85 mm
<b>Design style</b>	studio home pure home soft ambiente

**I-tec Glazing**

**I-tec Core**

studio



### HF 410






Sustained materials and colours of the interior decoration underline your minimalistic living style and bring individual elements into the forefront. HF 410 adapts perfectly to your interior design. Different colours and timber types offer you countless possibilities for your individual colour design of your interior spaces. Grey Oak as interior colour agrees with the modern living style with clear forms, plain materials and modest colours. Made to order, opening and fixed glazed windows can be integrated to large areas.

**NEW**

# HV 450

TIMBER/ALUMINIUM WINDOW WITH INTEGRATED BLIND

## PROPERTIES

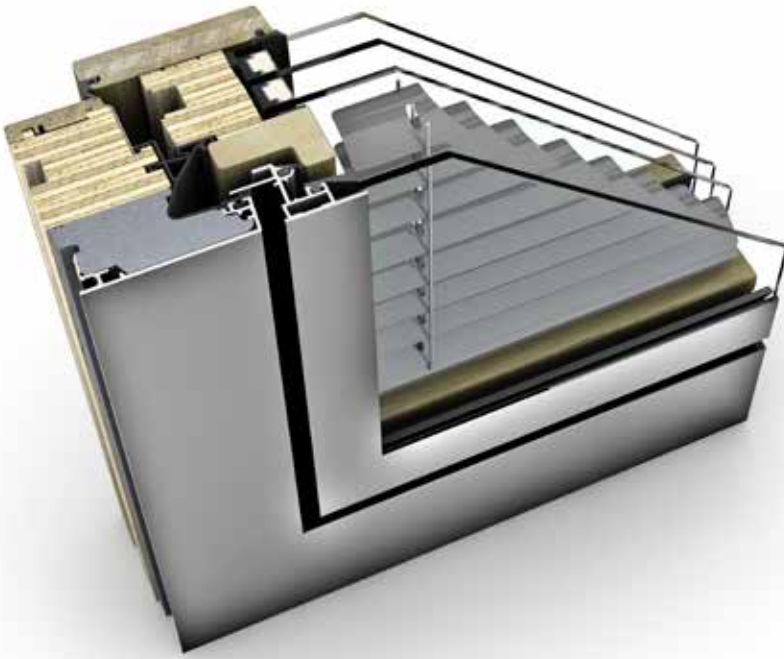
 <b>Thermal insulation</b>	U <sub>w</sub> as low as 0.62 W/(m <sup>2</sup> K)
 <b>Sound reduction</b>	up to 46 dB
 <b>Security</b>	RC1N, RC2
 <b>Locking</b>	concealed
 <b>Construction depth</b>	85 mm

<b>Design style</b>	home pure
	home soft
	ambiente

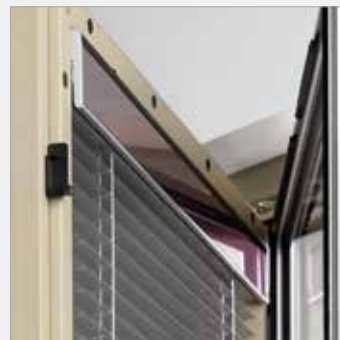
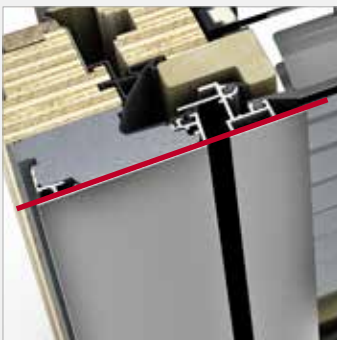
**I-tec SmartWindow**

**I-tec Glazing**

**I-tec Shading**



home pure



### HV 450

The completely flush transition from frame and sash as well as the integrated sun protection between the panes makes HV 450 one system. Blinds, Venetian blinds or Duette® are protected from dirt through the integrated installation. Which means 4 x more protection in one window with the perfect sun and privacy protection, thermal insulation and sound reduction. I-tec shading works fully energy self-sufficiently and also offers several other useful functions. Convenient functionality is also available with I-tec Smart Window.



**Internormi**





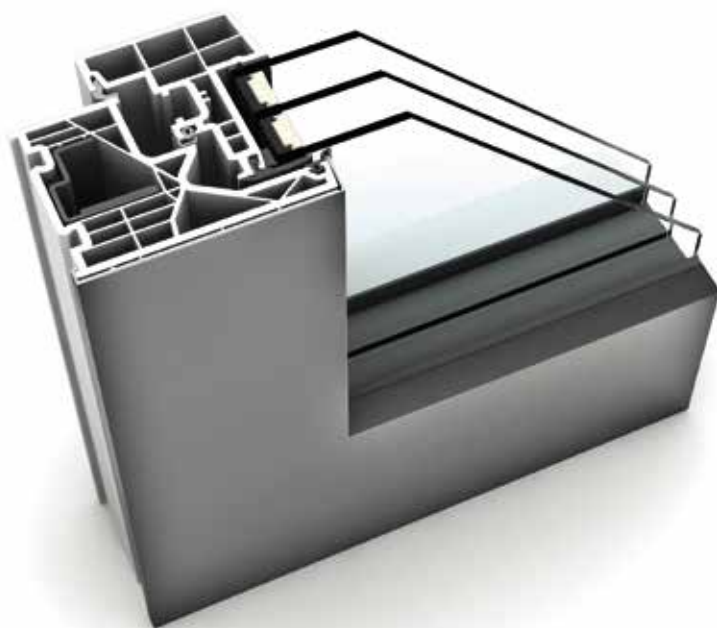
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# KF 320 UPVC & UPVC/ALUMINIUM WINDOW

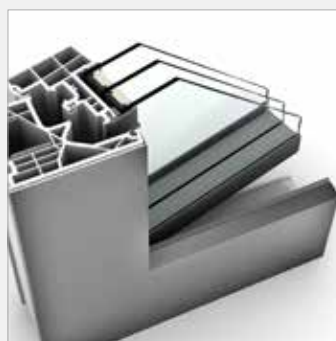
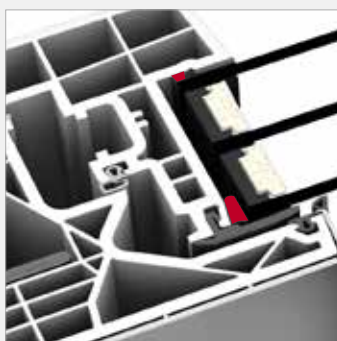


## PROPERTIES

 <b>Thermal insulation</b>	U <sub>w</sub> as low as 0.65 W/(m <sup>2</sup> K)
 <b>Sound reduction</b>	up to 45 dB
 <b>Security</b>	RC1N, RC2
 <b>Locking</b>	concealed
 <b>Construction depth</b>	71/74 mm
<b>Design style</b>	studio

**I-tec** Glazing

studio



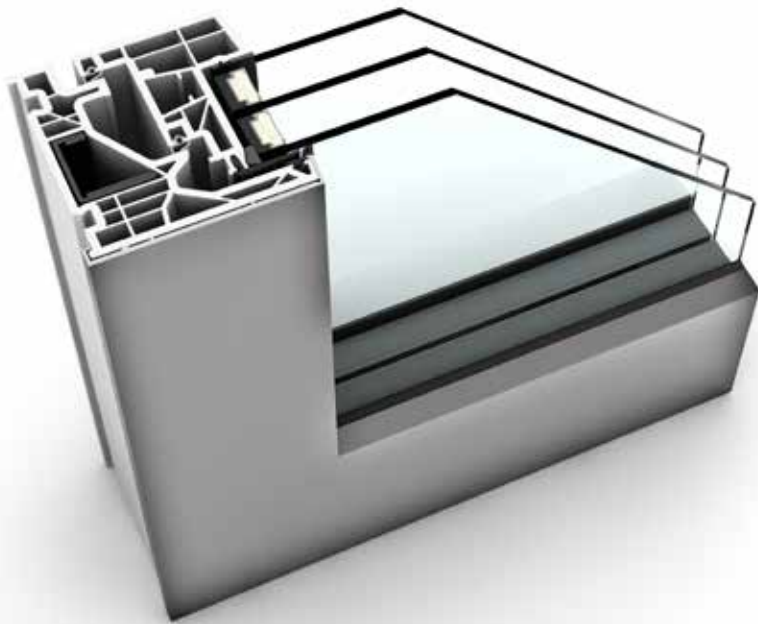
### KF 320

The innovative glass sash of the KF 320 gives the impression of fixed glazing, yet it is still an openable window. The narrow, square-edged window frame highlights the minimal architecture of the design style studio, in either the classic white UPVC version or with aluminium attachment clad. Three-sided rendering of the frame achieves your dream of almost frameless glass architecture. I-tec glazing ensures excellent stability, thermal insulation and security through surrounding bonding of the glass pane.








**NEW**

# KF 520 UPVC & UPVC/ALUMINIUM WINDOW



## PROPERTIES

	<b>Thermal insulation</b>	$U_w$ as low as 0.63 W/(m <sup>2</sup> K)
	<b>Sound reduction</b>	up to 46 dB
	<b>Security</b>	RC3, RC2
	<b>Locking</b>	fully integrated
	<b>Construction depth</b>	90/93 mm
<b>Design style</b>		studio

**I-tec Glazing**

**I-tec Secure**

studio








### KF 520

Internorm's new window generation combines innovative design with technical know-how. The narrow frame with glass sash cannot be distinguished from fixed elements from the outside and thus allows more light to enter. The frame on the inside is especially narrow and finishes flush with the window sash. The perfect solution for modern and contemporary architecture. This window sash also contains the revolutionary locking I-tec Secure which renders levering of the window almost impossible. I-tec Secure is integrated in the new KF 520 as standard and achieves security class up to RC3.

# KF 410 UPVC & UPVC/ALUMINIUM WINDOW



## PROPERTIES

 <b>Thermal insulation</b>	$U_w$ as low as 0.62 W/(m <sup>2</sup> K)
 <b>Sound reduction</b>	up to 45 dB
 <b>Security</b>	RC1N, RC2
 <b>Locking</b>	concealed
 <b>Construction depth</b>	93 mm

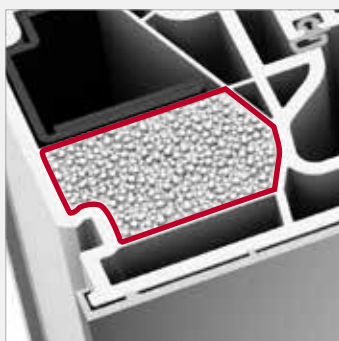
<b>Design style</b>	studio
	home pure
	home soft
	ambiente

**I-tec Glazing**

**I-tec Ventilation**

**I-tec Insulation**

studio








### KF 410

The completely flush transition of frame and sash combines KF 410 to one unit. Once the frame is rendered into the brickwork on three sides, only the narrow, square-edged sash frame remains visible. The frame is insulated seamless through the new insulation technology and thermal insulation is considerably improved. Technological advances with airing is provided by the I-tec ventilation. The ventilation system which is integrated in the frame ensures sufficient fresh air and ideal room climate 24/7.

# KF 310 UPVC & UPVC/ALUMINIUM WINDOW

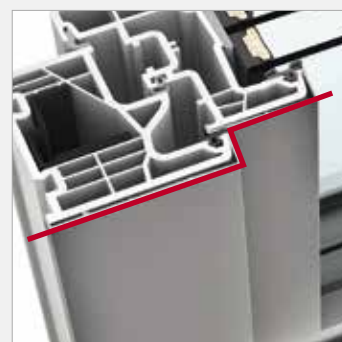
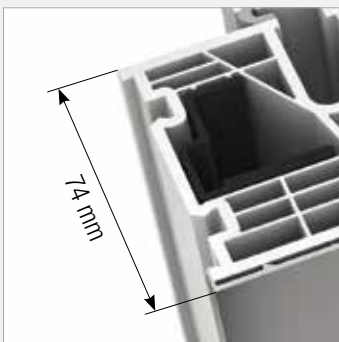


## PROPERTIES

	<b>Thermal insulation</b>	$U_w$ as low as 0.69 W/(m <sup>2</sup> K)
	<b>Sound reduction</b>	up to 45 dB
	<b>Security</b>	RC1N, RC2
	<b>Locking</b>	exposed
	<b>Construction depth</b>	71/74 mm
<b>Design style</b>		home pure home soft ambiente

**I-tec Glazing**

home pure

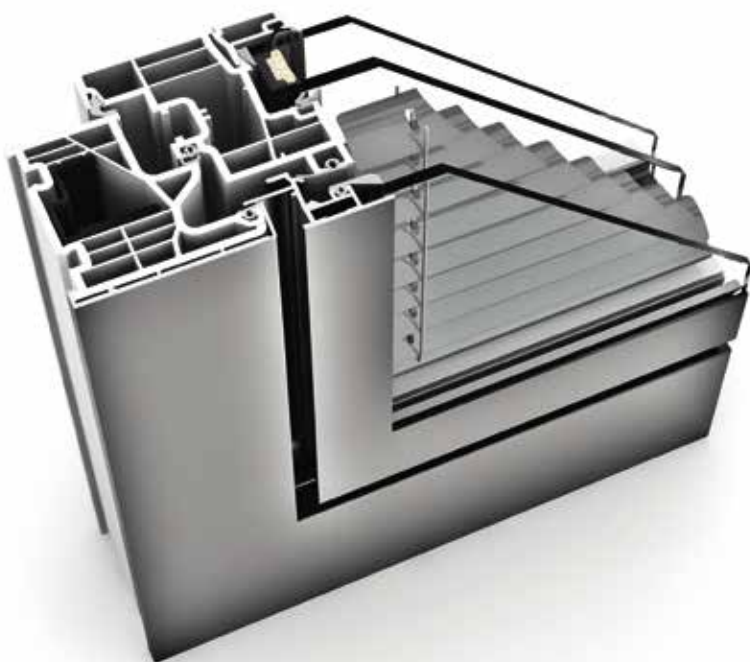


### KF 310






This sleek new window features the proven and reliable technology of all our Internorm windows. It is characterised by the best thermal insulation and sound reduction values, as well as all round bonding of the glass pane with the window sash. KF 310 is available in a large selection of colours, handles and glazing, as well as a balcony and patio door and now also as a French balcony. The square-edged exterior design of the frame and sash matches the design style home pure.



# KV 350 UPVC/ALUMINIUM WINDOW WITH INTEGRATED BLIND



## PROPERTIES

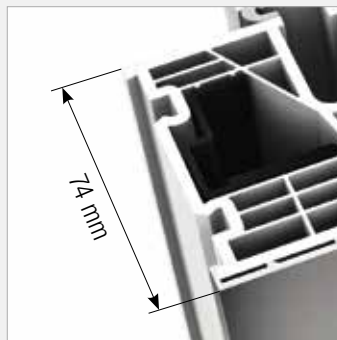
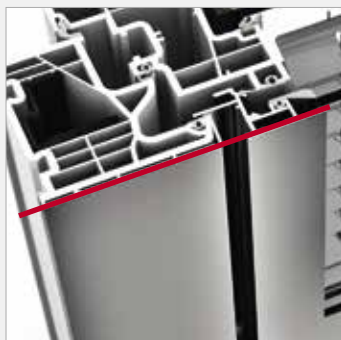
 <b>Thermal insulation</b>	U <sub>w</sub> as low as 0.79 W/(m <sup>2</sup> K)
 <b>Sound reduction</b>	up to 44 dB
 <b>Security</b>	RC1N, RC2
 <b>Locking</b>	exposed
 <b>Construction depth</b>	74 mm

**Design style** home pure  
ambiente

**I-tec Glazing**

**I-tec Shading**

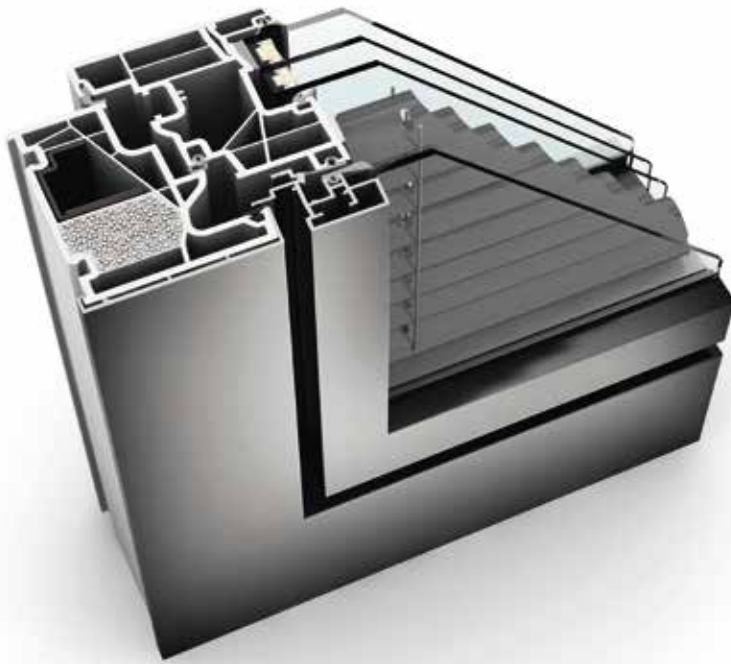
home pure








### KV 350

The modern and narrow window KV 350, with integrated blinds, features four main advantages. As well as the best sound reduction and thermal insulation, sun and privacy protection are also integrated in the window directly between the glass panes. This helps with cleaning - the blind is protected by glass panes from wind, bad weather and dirt. Sun protection is now also available in refurbishments or on facades, even if they do not permit roller shutters. I-tec shading works fully self-sufficiently and offers many other useful functions.

# KV 440 UPVC/ALUMINIUM WINDOW WITH INTEGRATED BLIND



## PROPERTIES

	<b>Thermal insulation</b>	$U_w$ as low as 0.64 W/(m <sup>2</sup> K)
	<b>Sound reduction</b>	up to 45 dB
	<b>Security</b>	RC1N, RC2
	<b>Locking</b>	concealed
	<b>Construction depth</b>	93 mm
<b>Design style</b>		home pure home soft ambiente

**I-tec Glazing**

**I-tec Shading**

**I-tec Ventilation**

**I-tec Insulation**

home pure



### KV 440

The window with integrated blinds KV 440, also offers all around comfort besides flush design. Sun and privacy protection is integrated between the panes and therefore protected from dirt. routine cleaning of individual slats is a thing of the past. I-tec shading also offers many advantages when it comes to performance. The sun protection can be controlled via photovoltaic module and batteries and does not need any external power source. I-tec SmartWindow enables convenient operation via your tablet or Smartphone.



Spectrum Architectural Glazing Ltd









# SUN AND INSECT PROTECTION

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COMBINABLE. INTEGRATED. MANY VARIATIONS.

The sun and insect protection systems complement the windows to a functional unit and support the design of the house facade. Combine your sun protection products with I-tec SmartWindow and enjoy the comfort of automatic functions as well as the convenient control via Smartphone or tablet.

**Windows with integrated blinds:** Integrated sun and privacy protection between the panes – choose between blinds, Venetian blinds or Duette® blinds, upon request with energy self-sufficient shading (I-tec shading).

**Venetian blinds:** Optimum control and guidance of light and warmth through adjustable slats, upon request with day light guidance RETROLux. Can be combined with insect protection.

**Attachment Venetian blinds:** Optimum control and guidance of light and warmth through adjustable slats. Can be combined with insect protection.

**Exposed and mini exposed roller shutters:** Delivered separately or completely fitted on to the window. Can be combined with insect protection.

**Insect protection:** Fixed, turn, sliding or pull-down flyscreen. Can be combined with sun protection.

**Window shutters:** Made of aluminium, with many design possibilities. Can be combined with insect protection.







Charlie Luxton Design installed by AT Eco



# Raffstores. More wellbeing. Less costs.

Did you know that smart controlled raffstores can reduce room temperatures in summer by up to 10°C compared to unshaded rooms? The raffstore does not even let the sun rays reach the window panes, but directs daylight towards the depth of the room. In winter the raffstore is retracted and the sun's power of 500 watt per square metre of glass area is used for heating. Modern raffstore systems control solar radiation and daylight level and thus contribute to passive cooling in summer and solar heating in winter. Thereby, raffstores considerably reduce energy demand for cooling, heating and artificial lighting.



Up to 50 % less cooling energy

Did you know that cooling a room by 1°C with air conditioning uses three times more energy than heating by 1°C?



Up to 30 % less energy consumption

Smart controlled raffstores reduce energy consumption considerably by passive cooling and solar heating.



Up to 80 % less electricity costs for artificial lighting

Adjustable sun protection doses and directs daylight efficiently into the interior.



Up to 8.5 tonnes of CO2 saved

One raffstore can save about 8.5 tonnes of CO2 in its lifetime. In its manufacture, use and disposal however, it only causes 150 kg of CO2.







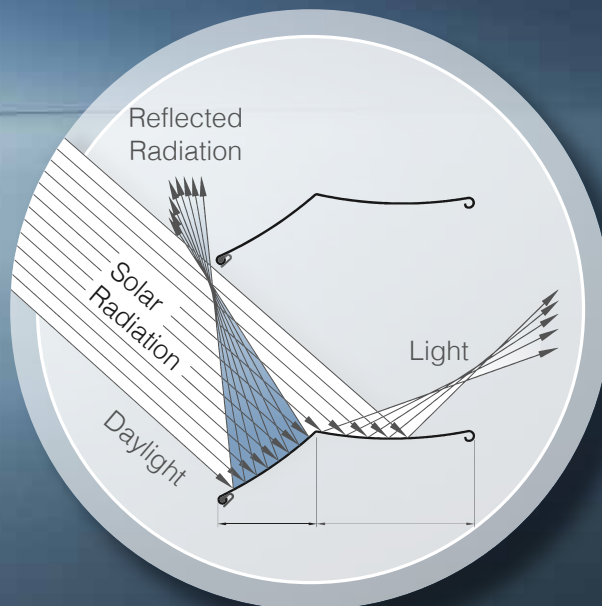
Daylight is directed towards the depth of the room via the ceiling.



Excellent view without glare



The top of the 80D slat is highly reflective to best direct daylight.



RETROLux. An ingenious system.

The secret of this raffstore lies in the two sections of the slat and their specific shape and angle. The outer segment reflects the direct sun rays back into the sky and does not even let the heat reach the window. The section which points to the inside directs the diffused daylight glare-free towards the depth of the room via the ceiling. Like this it stays comfortably cool and light at the same time. Another advantage: floors, furniture or electric appliances are protected from direct solar radiation.

Excellent view without glare.

The changeable slat tilt position ensures perfect view. The slats are tilted less in the upper area: perfect view from the depth of the room. The slats are tilted more in the lower area: unobstructed downward view near the window. Optionally, hanging can also move down in this open slat position.

The slat.

The top of the 80D slat is highly reflective to best direct daylight. This ensures nearly 100% colour reproduction of daylight on the ceiling. The underside of the slat is light grey which is especially comfortable for the human eye and prevents double reflections. The slats additionally feature high wind torsion through the off-centre fold and edge crimping. An embedded UPVC piping ensures noise reduction.

Without  
raffstore





## Raffstore with RETROLux slats



Maximum protection for furniture and floors through directing daylight to the ceiling.



Optimum cooling through perfect heat reflection.



Excellent view to the outside from the depth of the room and from the window.



Unlimited wellbeing due to pleasant daylight.



Lower costs through reduced lighting and energy input.







# Guiding rails.

Rendered into the facade or a visible element of the facade - guiding rails are an essential component of a raffstore.

Select between rendered or visibly mounted guiding rails depending on your taste and style of facade.



Guiding rail which can be rendered



Guiding rail with spacer



Self-supporting guiding rail for sliding frame of insect protection



Guiding rail for corner solutions



Cord guide



Punched holes for Texband  
Deep-drawn and crimped punched holes for Texband have neither sharp edges nor show interfering plastic eyelets.



Colourful  
diversity.  
For your  
home.

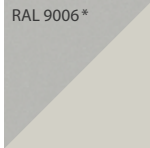
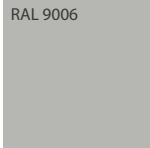


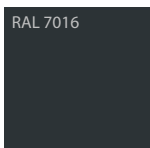
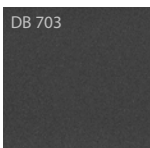


### Standard colours for slats

#### 80R & 92Z slats

 RAL 1015 Gloss Light Ivory	 RAL 3004 Gloss Purple Red	 RAL 6005 Gloss Moss Green	 RAL 7016 Gloss Anthracite Grey
 RAL 7047 Gloss Telegrey	 RAL 7038 Gloss Agate Grey	 NCS S2010-Y30R Gloss Light Beige	 RAL 9016 Gloss Traffic White
 DB 703 Gloss Grey	 RAL 9006 Gloss White Aluminium	 RAL 9007 Gloss Grey Aluminium	

#### 80D RETROLux slats

 RAL 9006* Gloss White Aluminium	 RAL 9006 Gloss White Aluminium
 RAL 9007 Gloss Grey Aluminium	 RAL 9016 Gloss Traffic White
 RAL 7016 Gloss Anthracite Grey	 DB 703 Gloss Grey

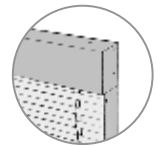
\*Underside Light Grey

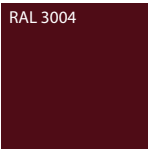
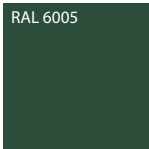
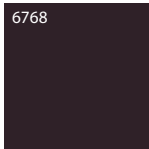
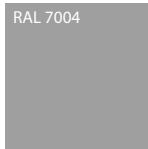
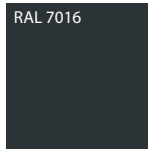

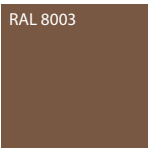

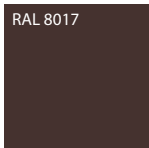
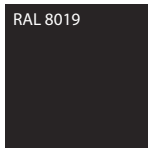



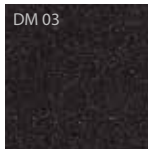
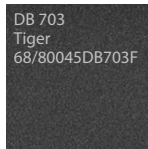


There is hardly anything more personal than your own four walls. Own style, own ideas and the personality of the resident are also expressed in the design of the facade. A very decisive factor here are colours. Almost every colour wish can be fulfilled using the in-house powder coating equipment. Therefore, sun protection systems from Internorm are available in a wide variety of colours.



### Standard colours for boxes & guiding rails



 RAL 3004	 RAL 6005	 6768	 RAL 7004	 RAL 7016	 RAL 7035	 RAL 8001
Matt Purple Red	Matt Moss Green	Matt Dark Brown	Matt Signal Grey	Matt Anthracite Grey	Matt Light Grey	Matt Ochre Brown
 RAL 8003	 RAL 8007	 RAL 8017	 RAL 8019	 RAL 9006	 RAL 9007	 RAL 9016
Matt Clay Brown	Matt Fawn Brown	Matt Chocolate Brown	Matt Grey Brown	Matt/Gloss White Aluminium	Matt/Gloss Grey Aluminium	Matt Traffic White
 Classic 01 IGP 4201 E75281A3F	 DM 01	 DM 02	 DM 03	 DB 703 Tiger 68/80045DB703F		
similar to. Anodised A6CO	Matt Green Metallic	Matt Grey Metallic	Matt Antique Dark Grey Metallic	Grey		

Many more RAL colours are available!

**Internorm**





# Home equals wellbeing.

Of course you can operate raffstores manually, but you don't have to. Internorm is offering precise and convenient electronic controls for all sun protection products. You can operate individual elements, control several simultaneously or program them individually as required. You can react flexibly to your personal preferences, time of day, solar radiation and weather conditions. You can choose between wired control for new builds and larger refurbishment projects or flexible wireless control.



**Wall button (wired)**  
Safe and easy motor operation via wall button. Ideal for new builds or larger refurbishment projects.



**Wireless wall transmitter**  
The wireless alternative to the classic wall button. Battery operated, no power connection required.



**Wireless hand transmitter**  
Uncomplicated and reliable: wireless control via hand transmitter. With wall holder for safe storage.



**Wireless wall transmitter with touch screen**  
Everything at a glance: the large touch display can be operated intuitively and provides the necessary overview. The wireless wall transmitter is permanently mounted on the wall and the display is connected to the power supply.





# Home Smart Home.

Our own four walls are becoming increasingly smarter. Heating, light or also Internorm sun protection systems can therefore now be easily controlled from anywhere using a tablet or smartphone. Regardless of wired or wireless control: our raffstore motors are also suitable for smart home solutions such as KNX, evonHOME, Loxone, mediola® and io-homecontrol® (Somfy). Planning is carried out by your electrician.

LOXONE **mediola**®



Via app

The modern solution for phone or tablet. Convenient control of sun protection via app in your home and on the go.





# Intelligent protection: Internorm wind monitor.



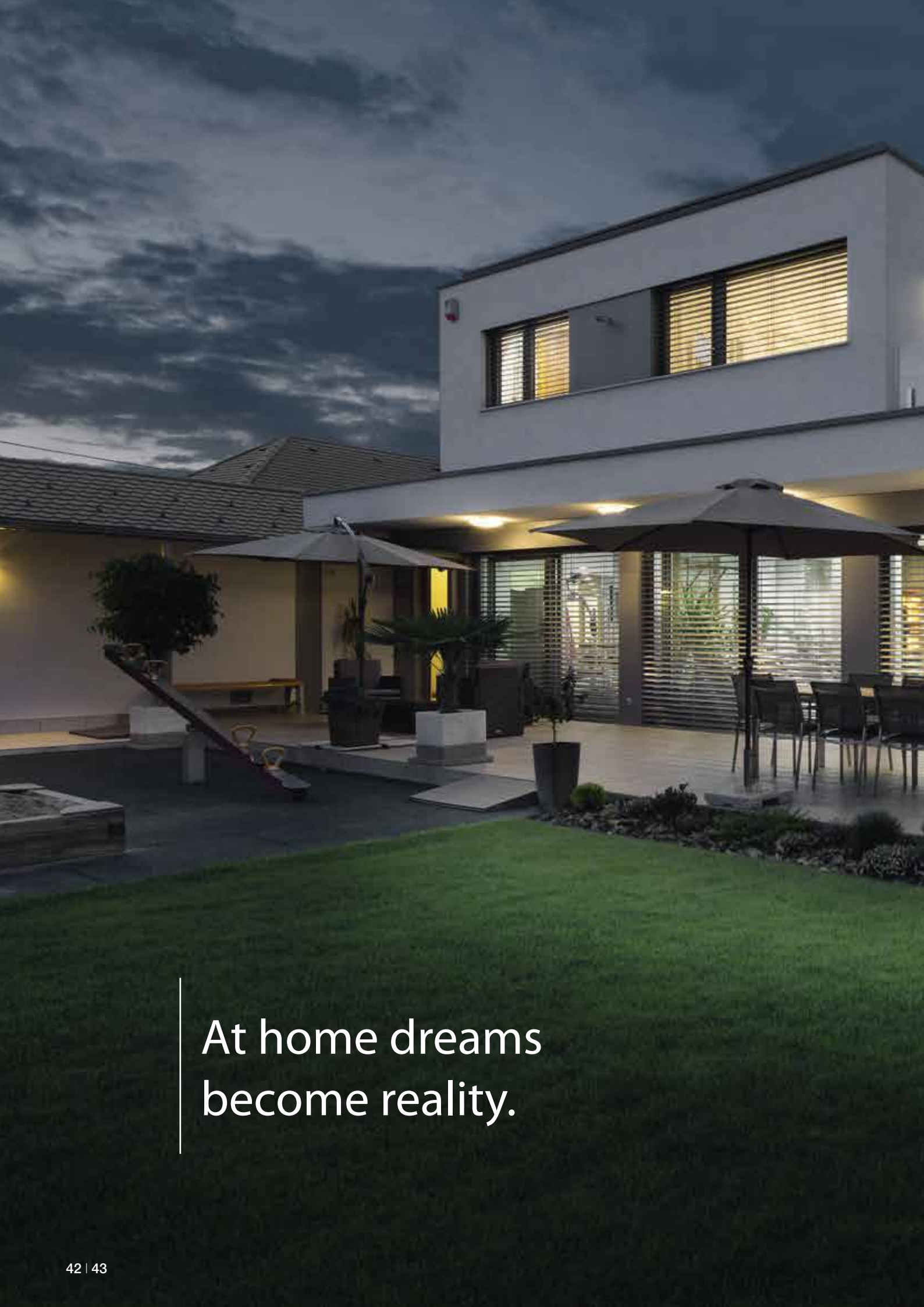


Raffstores should always be retracted during storms or high wind speeds. This happens automatically with Internorm if requested. The smart wind monitor gives the appropriate signal above a certain wind speed. A decisive security advantage for your raffstores, especially, if you are not at home.



**Internorm**





At home dreams  
become reality.





# The perfect insect protection solution for each window.

## Sliding frame

Insect protection sliding frames are the perfect choice for large areas and everywhere where space is tight such as conservatories, on balconies, patios or recessed balconies. Internorm manufactures the extremely stable construction of the insect protection sliding frame as systems of one sash or several sashes upon request.



## Turn frame

Insect protection turn frames can be used flexibly, but are especially suitable for outside doors such as patios, balconies and in conservatories. Even if you are keeping bothersome insects safely out, you prove to be extremely animal-friendly: insect protection turn frames are available with cat flap and also as inward and outward opening swing door.



#### Friction-fit frame

Insect protection friction-fit frames are ideal for window openings. The simple, user-friendly and differing installation systems match any window type and can be mounted and taken off conveniently from the inside.



#### Pull-down flyscreen

Up! Down! Up! Down! On a whim and as required. Pull-down flyscreens are available as separate element or combined with roller shutters and raffstores. During the winter months the flyscreen simply disappears up into the flyscreen box and is protected from wind and weather. The ideal seasonal solution for windows.





Internorm UK









AT Eco windows & Doors



## ADVANTAGES

- Durable core in window frame and window sash
- Slimline view widths for more light
- Matching timber types and colours for your interior design – individual colour and timber variety
- Attractive price/performance ratio
- Perfect combinability of window solutions – windows, lift-sliding doors, panorama glazing

**I-tec Core**

# DURABLE WINDOW. COUNTLESS TIMBER VARIATIONS

Spacious and bright living with large glass openings requires exceptional window solutions.

Next to the highest stability and load-bearing capacity, the window frame should be as slimline as possible and match the interior design.

Internorm has developed a timber core with I-tec Core which achieves these requirements.

The narrow, bonded timber layers are, resistant, durable and robust - these have been previously used for stable roof beams and supports. Large window solutions, lift-sliding doors or panorama windows can therefore be easily manufactured. Additionally, the narrow frame design gives this window elegance. The new high-tech material is also resource-saving, sustainable and enables larger dimensions due to its exceptional load-bearing capacity. The timber of the window sashes can be matched to your individual design needs, flooring or doors, as besides the standard timber types for windows such as spruce and larch, the exterior is also available in oak, ash and walnut.





## I-tec Shading

# ENERGY SELF-SUFFICIENT SUN PROTECTION.

Especially with refurbishments, you want as little dust and dirt as possible. Unnecessary work for additional power lines is not something you want to do.

Here, I-tec Shading is the perfect solution. The energy required for the drive is gained directly by the window through a photovoltaic module which is integrated into the blind cover. As no external power line is required, no extra work ie. structural provisions have to be taken care of.

All cables, chargers, modules etc. are positioned directly in the window.

The blind can be moved up and down via a remote directly at the window or via special automatic functions.

Day/night recognition, for example, opens and closes the blind from dawn till dusk. Measuring the solar irradiation and temperature prevents overheating of the rooms. The blind, however, can also be operated via SmartHome solutions such as I-tec SmartWindow.

The energy self-sufficient I-tec Shading can be used with all Internorm window systems with integrated blinds.



## ADVANTAGES

- No electricity needed due to the photovoltaic module
- Use of energy gain in winter – reduction of heating costs
- Automatic functions such as day/night recognition and measuring of solar irradiation
- Manual control available directly at the window frame
- Convenient control also via SmartHome solutions such as I-tec SmartWindow or Loxone Smart Home
- Photovoltaic module and sun protection integrated between glass panes





Ecohaus SW LTD





Scotia Windows & Doors

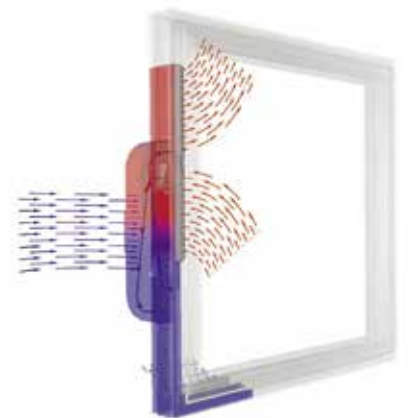
## I-tec Ventilation

# FRESH AIR. REGULATED BY THE INDIVIDUAL.

We spend time in different rooms for different amounts of time and also use them very differently.

For example, we are in the bathroom usually only for a short amount of time and while showering produce, steam and therefore humidity. Whereas, we spend the whole night in the bedroom and emit CO<sub>2</sub> during sleep. Storage areas or guest bedrooms are usually only used short-term and need to be aired predominantly to prevent mould.

Our usage of individual rooms is therefore as different as the requirements for fresh air. Internorm has developed a ventilation system with I-tec Ventilation which is geared towards exactly these individual requirements. This ventilation system is integrated **directly in the window frame** and can be regulated at each window individually, depending on how much fresh air is needed; more for one room, less for another room. In automatic mode, I-tec Ventilation measures the humidity content of the used air and switches on automatically if needed. I-tec Ventilation ensures fresh air and an optimum room climate.



## ADVANTAGES

- Each I-tec Ventilation and therefore each window and each room can be regulated individually
- Individual fresh air per room and as required for healthy living
- Less heat loss as full airing no longer necessary
- Increased security as window remains closed while airing takes place
- Integrated filters ensure air free from dust and pollen
- Operation available via I-tec SmartWindow or Loxone SmartHome
- Fresh air without any outside noise



# REVOLUTIONARY

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NEW STANDARDS FROM INTERNORM.



Under the melodius title of “**I-tec**“, Internorm has been developing a series of revolutionary technologies to meet the rising demands on design, technology, quality and comfort.

**I-tec Secure · I-tec Core · I-tec Ventilation · I-tec Shading · I-tec Glazing  
I-tec Insulation · I-tec SmartWindow**

Discover Internorm's innovative technologies on the following pages and be amazed!



Ecohaus South West Ltd

## I-tec Secure

FEEL SAFE.  
FEEL IMPORTANT.

Not only people who surround us, also furnishings of our living areas and the view to the outside contribute to us feeling well in our own four walls. To feel safe is also an important part.

With the unrivalled locking I-tec Secure you can be sure that your windows offer reliable protection. Instead of the customary locking pegs, flaps ensure the precise locking of the window sash with the frame. Levering of the window is practically impossible. **I-tec Secure is integrated in the new KF 520 as standard** and is available up to RC3 upon request.

These flaps also offer significant advantages when cleaning the windows. Only a few sash parts protrude, closing elements are completely omitted. Between the parts is only a smooth and easy to care for UPVC surface. I-tec Secure is integrated in the UPVC or UPVC/aluminium window KF 520 as standard and achieves security class RC2N with lockable handle as standard.



## ADVANTAGES

- Perfect security up to RC3 available due to integrated flaps
- Locking is situated in short distances on all four sides
- Levering of window is practically impossible
- Nice appearance as there are no visible closing elements
- Easy cleaning of window frame
- Modern glass architecture due to low view height





I-tec Insulation



I-tec Glazing



## YOUR ADVANTAGES

### I-tec Glazing

- Maximum burglary protection
- Increased stability
- Increased thermal insulation
- Improved sound reduction

## YOUR ADVANTAGES

### I-tec Insulation

- Granulate instead of foam
- Improved thermal insulation
- Hollow chambers filled completely

**I-tec Glazing**

**I-tec Insulation**

CONTINUOUSLY  
EFFICIENT.  
SAFETY ALL AROUND.

Many window panes are only glued into the frame at a few points. The glass can easily be pushed out of the frame and levered out. Also the insulation foam is not always attached all around, so not ensuring optimum thermal insulation.

To ensure maximum security protection, Internorm windows are equipped with **I-tec glazing** already as standard. Here, the glass pane is bonded to the window sash continuously and without gaps. This bonding system ensures a strong connection from glass to sash on the one hand, on the other hand it enhances stability as well as thermal insulation and sound reduction. Despite this strong connection, the glass can still be changed easily. **I-tec Insulation** is already available as a standard feature with two Internorm window systems. A granulate is pushed into the frame interior with pressure and so evenly fills the hollow chambers completely. Thermal insulation is considerably improved.

# XL GLAZINGS

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LIFT-SLIDING DOORS  
PANORAMA



Bright, light-flooded rooms create freedom for you and your family. Large glass areas extend the living space beyond its real border. This creates a new unlimited sense of space and at the same time offers a full view to the outside.

Internorm offers innovative solutions for modern glass architecture with frameless windows, fixed glazings, all-glass corners, large-scale lift-sliding doors, panorama windows and special solutions. Your ideas of maximum openness can become reality through a combination of these solutions.







©ecohaus South West Ltd.

## KS 430 UPVC & UPVC/ALUMINIUM LIFT-SLIDING DOOR




The new UPVC or UPVC/aluminium lift-sliding door KS 430 creates light-flooded rooms and enlarges your home beyond its real borders. Without any effort the large-scale sliding elements can be opened to make even more space.

The KS 430 offers modern design and excellent comfort combined with high-quality technology:

- More light through large-scale glazings
- Soft/lift as standard for easy operation
- Available up to 6500 x 2800 mm
- Narrow sliding frames and frameless side elements
- Easy operation of sash up to 400kg sash weight
- Energy efficient and heating cost saving
- No tripping hazard due to low threshold height
- Attractive colours for individual design requests
- Better stability due to glass fibre low threshold
- Toughened panes protect from injuries when glass breakages
- Can be perfectly combined with all other Internorm window systems



### PROPERTIES

	<b>Thermal insulation</b>	$U_w$ as low as 0.64 W/(m <sup>2</sup> K)
	<b>Thermal insulation</b>	up to 43 dB
	<b>Security</b>	RC1N, RC2



©ecohaus South West Ltd.

## HS 330 TIMBER/ALUMINIUM LIFT-SLIDING DOOR




The timber/aluminium lift-sliding door HS330 makes the borders between inside and outside disappear almost magically. It connects the inside space with the surrounding nature and creates a new, awareness of space.

The HS330 offers unique design and exceptional comfort, combined with high-quality technology:

- More light through large-scale glazings
- Available up 11 m wide x 3.2 m height
- Narrow sliding frame and frameless side elements
- Easy lifting and sliding of sash up to 400kg sash weight
- Energy efficient and heating cost saving
- Low heat emission due to triple glazing
- No tripping hazard due to low threshold height
- Attractive colours for individual design requests
- Better stability due to glass fibre low threshold
- Toughened panes protect from injuries
- Can be perfectly combined with all other Internorm window systems



### PROPERTIES

 *	<b>Thermal insulation</b>	$U_w$ as low as 0.73 W/(m <sup>2</sup> K)
	<b>Thermal insulation</b>	up to 40 dB
	<b>Security</b>	RC1N, RC2





©ecohaus South West Ltd.

# HX 300

## PANORAMA

### OPEN. BRIGHT. FREE.

Large-scale glazings which can be completely integrated into the brickwork, create unlimited freedom for your home. They bring light to the inside and at the same time offer full view to the outside. Innovative solutions such as glass joints where the transition between the glass panes is virtually invisible, offer many possibilities in the modern, large-scale glass architecture. You can set optical highlights with integrated windows in the style of your house.

#### Enjoy far-reaching views

- Frameless glass architecture
- Open bright living environment
- Create unlimited freedom



Frameless appearance and technologically optimized construction connection

## PROPERTIES



**Thermal insulation**

$U_w$  as low as  
0.74 W/(m<sup>2</sup>K)



**Thermal insulation**

up to 47 dB

**I-tec Glazing**

# INDIVIDUAL

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INTERNORM'S DESIGN  
POSSIBILITIES.



The design of your house is as individual as you are. Let your taste decide on straight-lined, modern, classical or traditional design styles and allow your home to be as individual as you are. By choosing Internorm you can be sure to get the perfect windows for your house style. With almost unlimited design possibilities will we gladly fulfill your exact requirements.

Internorm windows can support the design of your home with a wide range of design styles including:

- Attractive handles in aluminium, chrome and brass
- A multitude of glazing from Satinato to Linea
- Security glazing as well as highly thermally insulating glazing
- Numerous colours for UPVC, timber and aluminium surfaces
- Sun and insect protection systems

**Internorm**





# PERFECT COMBINATIONS

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## TRUE TO STYLE. INDEPENDENT OF MATERIALS. MATCHING.

The demands on design, energy efficiency and comfort of the windows increase with individual architecture. Function and design are no contradiction with Internorm. UPVC/aluminium and timber/aluminium systems can be perfectly combined.

### **Outside same design – choose between UPVC or timber for the inside**

If you would rather have a UPVC/aluminium window in the bathroom because of the high humidity, but would not like to miss the timber/aluminium window in the living room, then you can combine these two materials without any problems with Internorm. The design of your window and therefore the exterior design of your house always remains the same. Inside of each room you have the possibility to create your window according to your requirements – either in UPVC or in timber.

**Uniform appearance for architecture true to its style** No matter in which design style you create your house – if avant-garde, modern, elegant, playful or timeless – Internorm is offering you perfect combinability for each of these styles in the materials UPVC and timber.

### **Can also be combined with lift-sliding doors**

You do not have to miss large-scale glazing and more light in your rooms. We are offering you lift-sliding doors in the materials UPVC/aluminium and timber/aluminium, matching the window style.



## FEATURES



Charlie Luxton Design installed by AT Eco

## OUTSIDE - THE SAME



### Aluminium

The aluminium clad on the outside adapts to the design style of your house.



### UPVC

UPVC is long-lasting, extremely easy to care for and also perfectly suitable for rooms with high humidity such as e.g. the bathroom.



### Timber

Timber conveys warmth, is cozy, provides a pleasant atmosphere and is therefore perfectly suitable for living rooms and bedrooms..





## SAFE WITH SECURITY

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RELIABLE. EFFECTIVE. PATENTED.

Optimum security protection and maximum security for children are main requirements to be able to feel at ease within your own four walls. A considerable contribution to this feeling of comfort comes from the windows. You can protect your family effectively with Internorm's sophisticated technologies und make it difficult for intruders to gain access to your house.







Cherwell windows



**Security locking elements**

All Internorm window systems are equipped with standard security. Solid, attractive, yet discreet designer locking elements in silver together with the hexagonal mushroom shaped closing bolt in the window frame lock the window (except KF 520).



**I-tec Secure/KF 520**

Internorm's revolutionary locking technology guarantees maximum protection. When locking the window, flaps open and press on to all sides directly inside the frame. The window cannot be levered any longer.



**Security handle**

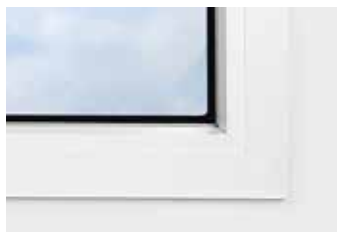
The Secustik handle with safe screening offers highest security. The patented locking mechanism protects absolutely secure against moving the lock from the outside (standard with UPVC and UPVC/aluminium window KF 520).



**Lockable handles**

SecuForte® (Model Austin)

- Instead of handle with push button
- At 0° and 190° handle is locked
- In 90° position



**Concealed hardware**

Concealed hardware ensures that windows cannot be levered out of their hinges and serves for discreet appearance and easy cleaning.



**I-tec glazing**

Thanks to Internorm's patented glazing technology, the glass pane cannot be pushed out. The glass pane is glued all around into the window frame and therefore stays securely and tightly. Almost all Internorm window systems are equipped with this I-tec innovation as standard.



**Electronic sensor**

Locking sensors report reliably and inconspicuously via the I-tec SmartWindow App if and which windows or window doors are open, tilted or locked. The sensor can also be wired upon request and can then be combined with any customary alarm systems.



**Laminated glass**

Contrary to conventional window glass which splinters when broken, laminated glass does not break apart. Tear-resistant foils keep the panes together, the glass stays in the window frame and danger of injury is averted.





Internorm UK



Handles for windows



**Handle G80**  
p/n. 36435



**Handle G80**  
p/n. 36404  
p/n. 36505  
(only for KF 310/KV 350)



**Handle G80**  
p/n. 36400



**Secustik®-  
Handle G80**  
p/n. 36431  
(only for KF 500)



**NEW: Secustik®  
handle G80  
black matt**  
p/n. 36123



**Handle Dallas**  
p/n. 36426



**Standard handle  
aluminium natural**  
p/n. 33899  
p/n. 36504  
(only for KF 310/  
KV 350)



**Designer handle  
steel**  
p/n. 34615



**Designer handle  
white**  
p/n. 33896



**Handle with  
push button**  
p/n. 33885



**Designer  
handle  
Bruxelles  
chrome  
satined**  
p/n. 34592



**Handle  
Amsterdam  
aluminium  
natural**  
p/n. 36416



**Designer  
handle Athinai  
chrome/  
stainless steel  
matt**  
p/n. 34596



**Designer  
handle Athinai  
brass matt/  
aluminium  
steel**  
p/n. 34594



**Designer handle  
Bruxelles  
brass polished/  
chrome**  
p/n. 34590



**Designer handle  
brass polished**  
p/n. 34597



**Handle lockable  
brass**  
p/n. 33886



**Designer handle  
Athinai brass  
polished**  
p/n. 34595



**Designer handle  
Bruxelles  
brass polished**  
p/n. 34591



**Designer handle  
Atlanta  
brass polished**  
p/n. 34750



**Handle G80 (F1)**  
p/n. 36475



**Handle G80  
(F9714m/black matt)**  
p/n. 36133



**Handle Dallas**  
p/n. 36412



**Handle Softline**  
p/n. 32447



# GLASS



Satinato white

Satinato green  
(only for Doors)

Satinato blue  
(only for Doors)



Chinchilla

Linea

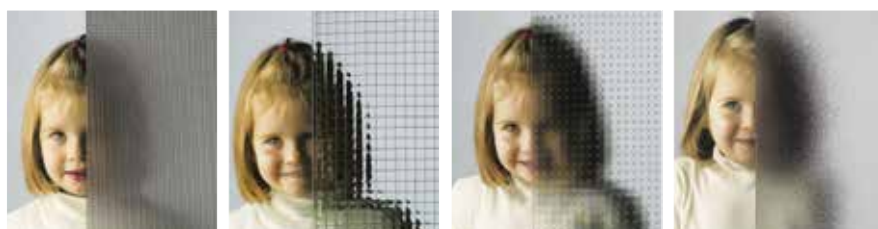
UADI



Kathedral hammered

Altdeutsch K

Reflo



Masterpoint

Wire glass

Mastercarré

Ornament 504

There is a comprehensive selection of glasses available matching the respective window and door series in the different design styles.

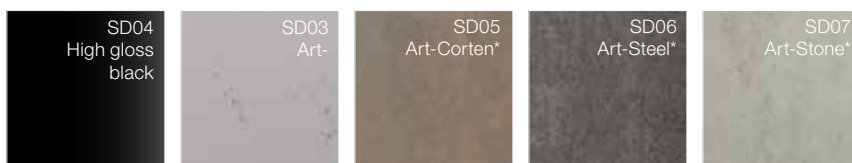
Variable glass cut-outs are available upon request and after technical inspection.

Please note that not every glass is available for every door series. Due to printing and manufacturing technology colour and structure deviations between illustrations in this brochure and original products may occur.

Your **Internorm [1<sup>st</sup>] window partner / distribution partner** will gladly show you original colour samples.

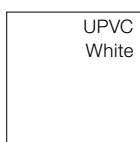
# EXTERNAL SIDE OF WINDOWS AND DOORS

## SD COLOURS (ONLY FOR DOORS)



\*Available on technical request.

## UPVC



Please note that not every colour is available for every window and door. Due to printing and manufacturing technology colour deviations between illustrations in this brochure and original products may occur.  
Your **Internorm [1<sup>st</sup>] window partner / distribution partner** will gladly show you original colour samples.

# ALUMINIUM ATTACHMENT CLAD

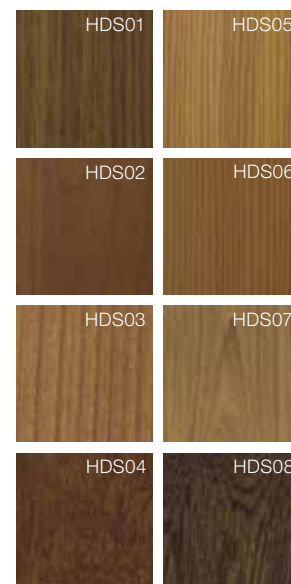
## STANDARD COLOURS\*



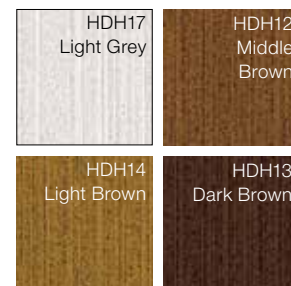
## hiREST COLOURS\*\*\*



## HDS COLOURS\*\*



## TIMBER DECOR COLOURS\*\*\*\*



## METALLIC DECOR COLOURS



## ANODISED COLOURS



## SPECIAL COLOURS

A variety of design possibilities are offered by the Internorm RAL colour range (facade quality). These are the colours available for aluminium attachment clads outside and timber inside.

\* **Highly weather-resistant**, except M916 (facade quality).

\*\* Intensive colour appearance, however colour tolerances are possible.

\*\*\* A special highly weather-resistant powder coating is used for surface versions **HM** (highly weather-resistant standard colour), **HF** (highly weather-resistant fine structure), **HFM** (highly weather-resistant fine structure metallic), and **HDH** (highly weather-resistant timber decor colour).

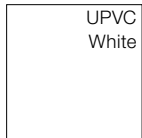
\*\*\*\* **HDH colours** have a vibrant timber appearance being hand-finished with structure coating, however colour tolerances are possible.



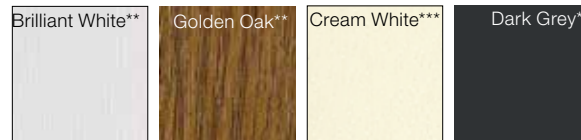
# INTERNAL VIEW OF WINDOW

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## UPVC



### DECOR FOILS



- \* Available for KF 500, KF 410 and KV 440 in studio and home pure as well as KF 310 and KV 350 in all available design styles
- \*\* Available for KF 410, KF 200 and KV 440 in home soft and ambiente as well as KF 310 and KV 350 in all available design styles
- \*\*\* Only for KS 430, KF 310 and KV 350

## TIMBER

### STANDARD COLOUR SPRUCE, VARNISHED

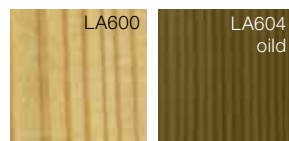


### STANDARD COLOUR SPRUCE, OPAQUE

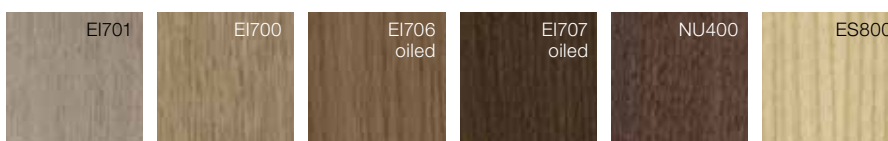


### STANDARD COLOUR LARCH, VARNISHED

not available for HF 310



### COLOURS HF 410 – additionally available to timber standard colours



NEW: Even timber types not usually used in window construction can be used for timber/aluminium window HF 410 as well as timber/aluminium lift-sliding door HS 330.



# ECLAZ® THE PREMIUM GLASS COATING

*NOW IN EVERY INTERNORM WINDOW*

## **NEW: Up to 10 % more daylight with premium glass coating ECLAZ®**

Internorm offers premium glass coating ECLAZ® as standard so more natural light for the interior of your living areas. Blue contents of the light spectrum are carried through the glass ensuring up to 10 % more daylight.

### **Compared to normal market glass, ECLAZ® offers:**

- **More attractive** – lower, outer reflection as well as a colour-neutral outside view, a combination of function and aesthetics  
Increased light – up to 10 % more daylight – better for health and well-being – a crucial advantage especially in the dark winter months
- **Visual comfort** – extremely translucent even as triple insulating glass, for a light atmosphere on the inside and a brilliant view to the outside
- **Visual comfort** – extremely translucent even as triple insulating glass, for a light atmosphere on the inside and a brilliant view to the outside
- **Spatial comfort** – makes living areas even lighter and friendlier, uses the natural energy of the sun
- **Energy efficiency** – insulates the interior excellently and thus reduces heating costs – increased energy efficiency in the building – up to 11 % less CO<sub>2</sub> emission





## SIDE ENTRANCE DOORS

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TIMBER/ALUMINIUM



HF 410



HF 310

ALUMINIUM



AT 150



Side entrance doors serve to close off unused, unheated rooms (e.g. garage, basement storage rooms etc.). Current statistics show that intruders predominantly gain access to a house via side entrances. It is therefore all the more important to consider relevant security features – Internorm offers different security systems upon request.

Side entrance doors are available in, timber/aluminium, aluminium and UPVC and offer a wide range of individual design possibilities.

ALUMINIUM



**AT 150**

UPVC



**KF 320**



**KF 310**





Dobratsch summit house 2,143 m, Transform Architekten ZT-GmbH, Architekt DI Günter Weratschnig



## THERMAL INSULATION

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ENERGY EFFICIENT. WELCOMING. WARM.

Highly thermally insulating window systems ensure comfort and warmth within your own four walls. In connection with a special coating for using solar radiation they virtually becomes free additional heating.

As a building can lose approximately 25 to 30 % of its energy through the windows, the thermal insulation of the windows is especially important. Through careful planning, correct positioning of the window areas (large window areas south-facing) can positively influence the energy balance of the building. The thermal insulation of the window depends on the frame material, the insulating glass and the tightness of the window. The **parameter for the insulating capability** of the window is the **U value**. **The lower the value, the better the thermal insulation**. Additional features such as roller shutters and window shutters can improve the U value.



## SOUND REDUCTION

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CALM. COMFORTABLE. QUIET.

Interference of noise is unpleasant and can, given the right intensity and duration, affect the human body in a negative way. Noise is perceived through the human ear and passed on to the brain.

Sound reduction of a window is measured in decibels. The higher the value, the better the sound reduction. Sound reduction states how much sound energy from the original sound energy is allowed to pass through. At an insulation of 10 dB 1/10 of the original sound energy passes through, at 20 dB 1/100, at 30 dB 1/1000 etc. Humans perceive a reduction of 10 dB as halving the noise. Sound reduction of a window is dependent on frame material, insulating glass, tightness of the window and the construction connection.



# WARRANTIES

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## WE GUARANTEE YOU MANY YEARS OF PLEASURE WITH YOUR INTERNORM WINDOWS.

As Europe's leading and largest active international window brand, Internorm looks back on 87 years of experience in trendsetting window and door solutions of exceptional reliability and longevity. This, we can guarantee you.

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### Warranty

**15**  
YEARS

- No condensation between the panes of insulating glass up to a glass weight of 80kg.
- 

### Warranty

**10**  
YEARS

- No unnatural colour changes or cracked surfaces due to weather influences for white window and door profiles made of UPVC, with the exception of mitre cracks.
  - No unnatural colour changes or cracked inside surfaces due to weather influences for foil-coated window and door profiles made of UPVC, with the exception of mitre cracks.
  - No unnatural colour changes or cracked surfaces due to weather influences for anodised or powder coated window and door profiles made of aluminium.
  - No condensation between the panes of insulating glass.
  - The function of the timber, thermal foam and aluminium profile compounds is guaranteed for all Internorm timber/aluminium window systems, provided that the Internorm installation and maintenance guidelines have been adhered to.
  - The function of the adhesive and the sealing of insulation glass panes with the window profiles is guaranteed for all Internorm timber/aluminium window systems, provided that the Internorm installation and maintenance guidelines have been adhered to.
  - The glue connection of glued Georgian/feature bars.
- 

### Warranty

**5**  
YEARS

- PVD coated door handles are guaranteed against corrosion if there is no mechanical change.
  - No unnatural colour changes or surface cracks due to weather influences in door fillings. There is no guarantee for changes in the surface appearance as a result of dirt.
- 

### Warranty

**3**  
YEARS

- No unnatural colour changes or surface cracks due to weather influences for roller shutter profiles made of UPVC.
  - No unnatural colour changes or surface cracks due to weather influences for anodised or powder coated roller shutter and blind profiles made of aluminium.
  - The function of the window or door fitting is guaranteed, provided that the Internorm installation and maintenance guidelines have been adhered to.
- 

#### WARRANTIES/EXCERPT:

The full wording of our warranty conditions, the exact preconditions for the application of the warranty, and what you should do in the event of a claim, can be found in the Internorm Maintenance Care and Warranties Manual. You will receive this booklet when your Internorm products are delivered. In addition, it is obtainable from any Internorm [1<sup>st</sup>] window partner / distribution partner.

# NATIONAL AND INTERNATIONAL CERTIFICATIONS CONFIRM THE HIGH QUALITY OF OUR PRODUCTS.

Our know-how gives you the security that you receive best service for your money. The most modern production facilities and strictest quality controls ensure quality which is setting standards all over Europe. Awards of independent test institutes from all over Europe are confirming this.



Austrian State Emblem



Austrian Quality Label



CE Certification



TÜV



Institute for Window Technology Rosenheim



Plus X Award



RAL Quality Seals



Federal Ministry for Traffic, Innovation and Technology



Technical University Graz



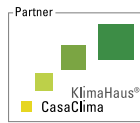
Minergie® Certificate



Austrian Society for Environment Simulation



Certificate for Sustainable Forest Management



KlimaHaus Certificate



Energy Globe (Projekt Schiesthaus)



Climate Association Town Traun



VinylPlus Certificate



# EUROPE'S NO. 1 WINDOW BRAND

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# WE ARE A STRONG FAMILY BUSINESS!

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As a strong family business, currently third generation run, we've led the market in premium windows for decades. As one of Europe's industry leaders, our products are engineered to be outstanding at every level.

Our headquarters may be in Austria, but we have more than 1,300 selected sales partners in 22 countries – including the UK. Our UK branch, headed by Andreas Simmer, has been established for 11 years now. Our passion for engineering, innovation and quality has allowed us to build an excellent reputation here in the UK.



**ANDREAS SIMMER**  
UK Managing Director

Internorm UK





# NOTES

# NOTES

# NOTES



# Internorm®

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