

# WINDOWS AND DOORS



The most popular choice for Finnish homes.



# OUR PIHLA PRODUCTS

Pihla windows and doors are among the most popular in Finland. Their appearance, strong structures, optional accessories and energy-efficiency make it easy to choose windows and doors. Pihla's products can be trusted in all situations!



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## **ISING TO THE CHALLENGE**

Our range includes windows and doors for repairing the old as well as for building new. The selection consists of three window models: triple-glazed opening Varma, quadruple-glazed opening Terno and Fixed windows. Our wide range of doors includes products from storehouse and balcony doors to an impressive new external door range. Sliding doors are also included in Pihla's product range.

## **VERSATILE PIHLA**

Thanks to their durable joints and notable material strengths, Pihla products are suitable for many types of buildings. The products represent cutting-edge technology and are versatile. There are several colour options and accessories available.

## **PRESENTABLE RANGE**

We make all our windows and doors to measure, which enables customised solutions for both new buildings and renovation jobs. The size and shape can be freely selected. The frame depth, handedness options, glazing and accessories are also designed together to best meet your needs.

## **MADE IN FINLAND**

All Pihla windows, balcony doors and external doors are made with more than 40 years of experience in Ruovesi in Central Finland.



# PIHLA'S SMALLER CARBON FOOTPRINT

In order to reduce the carbon footprint of our products throughout their life cycle, we take environmental considerations into account in everything we do. As part of the Pihla Group's sustainability principles, we are committed to halving carbon dioxide emissions from all our operations from the 2019 level by 2030. Our operations will be carbon-neutral by 2050.

## RESPONSIBLE OPERATIONS

Pihla is committed to sustainable development and a responsible business model, which is based on the UN's Sustainable Development Goals. We focus on being environmentally friendly, creating a good workplace and conducting responsible business operations, which enable us to promote a better and more sustainable future for us all.

## THE PRODUCT'S ENTIRE LIFE CYCLE RESPECTING THE ENVIRONMENT

Careful material choices, an optimised manufacturing process and modern product development play

an important role in reducing our carbon footprint. In addition, we minimise transport emissions and pay attention to recyclability, both for raw materials and end-of-life products.

We are constantly working to find greener solutions, and are delighted to be able to say that we have managed to optimise certain areas of our operations to become completely carbon-neutral. Our factory uses an environmental product card verified by a third party, the Building Information Foundation RTS, which we use to monitor the development of our product's carbon footprint.











# VARMA WINDOWS

## VARMA

- U-value 0.78 ... 1.0
- Energy rating A+ ... A

## VARMA PALO

- EI30 and EI15



## RELIABLE AND DURABLE

Pihla Varma is a double-sash, inward opening wood-aluminium window with a double-glazed insulating glass unit in the inner sash. The outer sash is made of aluminium and has one pane of glass. Pihla Varma is a reliable basic window and a suitable option for all properties. The 25-year guarantee against decay we issue for the window speaks for Varma's reliability and durability.

## A PIONEER IN TIGHTNESS

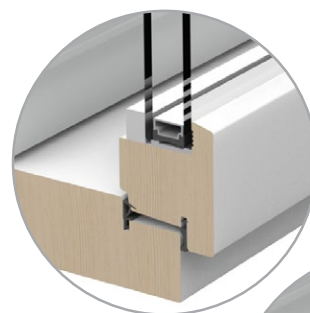
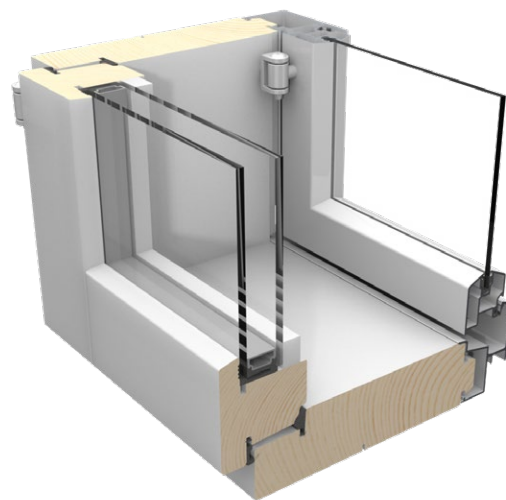
Varma has three sealing surfaces: two seals in the inner sash and one in the outer sash. Varma has achieved top results in air-tightness, water-tightness and wind-pressure resistance tests. Varma is stylish and elegant as well as tightly sealed and reliable.

## STRONG STRUCTURE

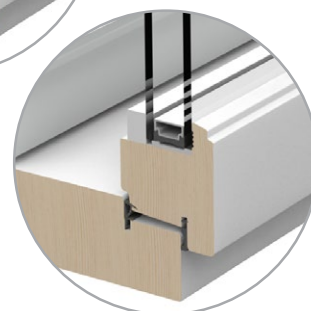
The solid woodwork of the frames and sashes is equipped with traditional, durable joints. The inner sash, made of pine, is strong and has an energy-efficient insulating glass unit. The aluminium outer sash has steel locks and sturdy hinges.

## RANGE

In addition to the basic window, the Varma window is also available as an EI30 class fire window, emergency exit window and inlet air window with inlet air valves.



Pihla Varma S with straight frame



Traditional Pihla Varma with decorative frame





# TERMO WINDOWS

## TERMO

- U-value as low as 0.59
- Energy rating up to A++

## TERMO PALO

- EI 30 and EI 15



## ENERGY-SAVING SOLUTION

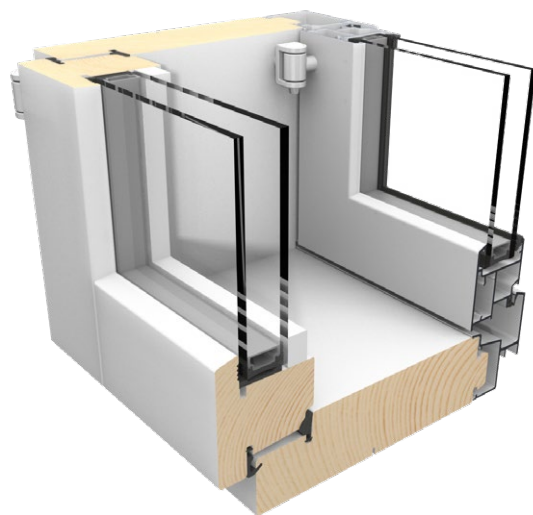
The low-energy alternative Pihla Termo is a double-sash wood-aluminium window with an insulating glass unit in both sashes. Compared with traditional triple-glazed windows, the Termo solution helps achieve considerably better heat insulation and protection against the sun's heat radiation. The better heat economy the windows offer, the more comfortable the home is to live in.

## FAMILIAR STRONG PIHLA

Termo offers the familiar structure of Pihla windows: durable wood and aluminium sections, sturdy joints and a ventilated structure between the timber and the external aluminium. Pihla Termo windows have a 25-year guarantee against decay.

## WIDE RANGE OF ACCESSORIES

The most popular optional accessories and options are the appropriate glazing solutions, decorative lattices, blinds, mosquito sashes, ventilation valves and, as in Varma windows, a decorative or straight inner sash. Pihla Termo is also available as an EI30-class fire window and inlet air window.



The quadruple-glazed Pihla Termo energy-saving window has been designed by taking the tightening heat insulation requirements into consideration. Thanks to continuous product development, Terno windows always have the best glazing solutions and equipment level.



# FIXED WINDOW

## VARMA

- U-value 0.68 ... 1.0
- Energy rating up to A++

## DB

- U-value as low as 0.67
- Sound insulation up to 41 dB ( $C_{tr}$ )

## PALO

- EI30

## INCREASING POPULARITY

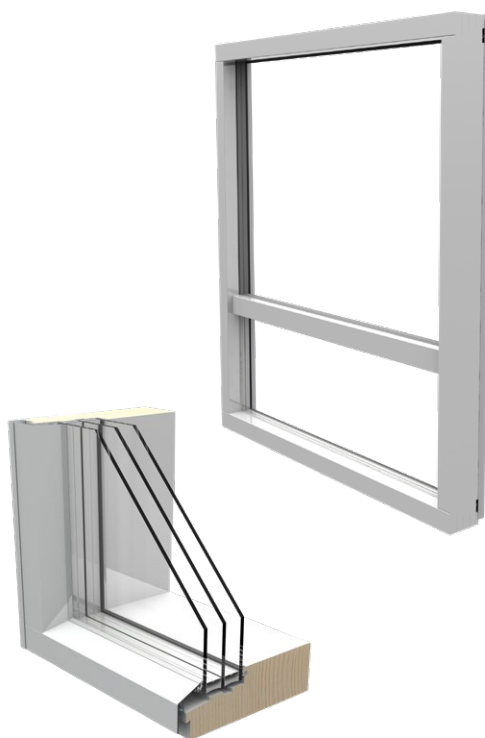
The interior of the fixed windows is timber, and the external cladding is aluminium. Thanks to the energy-saving insulation glass, fixed windows have an energy rating of up to A++. The popularity of Pihla Fixed windows has constantly been increasing thanks to their advanced glazing solution and excellent energy-efficiency. The soundproofing in Pihla Fixed windows is also excellent.

## A PART OF THE PRODUCT FAMILY

The fixed windows can be mixed and matched with other Pihla windows, thanks to their uniform colour selection and frame depth. The fixed and opening windows have a uniform pressed metal sill line, making it easy to install them side by side.

## GREAT APPEARANCE

The glazing uses durable rubber seals both inside and out. The end result is elegant and tightly sealed. Pihla Fixed has achieved excellent results in air-tightness, water-tightness and wind-pressure resistance tests.



## RANGE

In addition to triple-glazed Varma and quadruple-glazed Termo structures, fixed windows are also available as an EI30-class fire window.





# BLACK WINDOWS

The popularity of black windows keeps growing. Pihla's black windows are completely black up to the hinges, from the inside and outside. They give a great appearance to the home. We make black windows as opening and fixed windows.



## OPENING BLACK WINDOW

Termo BLACK is not only stylish but also features advanced design. The special glazing of the window has been specially made to fit the black window, as it protects the frames and structures from overheating caused by the sun.

## FIXED BLACK WINDOW

Pihla Fixed windows can also be manufactured entirely in black. The window contains a triple thermal glass element with a selective glass and black element spacers.





# PIHLA EXTERNAL DOORS



## A DIVERSE SELECTION

Pihla doors are available in several different structures designed for different applications:

- Varma is our most popular external door, whose thick door leaf and double sealing make it a very warm front door.
- The Termo structure is designed for the best thermal insulation and low energy construction.
- Vieno is a new multi-purpose door that meets the building regulations for new construction and renovation.
- The dB door structure is designed to provide the best possible sound isolation for the external door.
- The fire door safety door structure meets most fire safety requirements for residential and public buildings.





Pihla has a long history of making premium external doors. The high quality of our doors is based on continuous product development and new innovations. The latest example of our innovations is the door light, the first in Finland designed to be integrated into the external door. The Pihla external door is a door worth your home.

## DOORS MADE TO ORDER

Every Pihla door is made to measure, so you can rely on getting exactly the kind of door that you want. You can define the measurements, handedness, frame depth and colour according to your taste and needs. Instead of clear glass, you can choose from a range of glass that blurs the view.



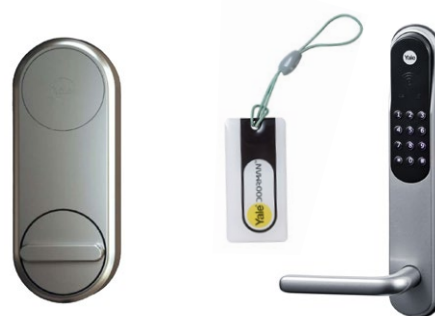
The nail-free glazing available for standard colours makes the door clean and stylish.

## GUARANTEED QUALITY

In Pihla's new external doors, special attention has been paid to the quality and neat appearance of the door. We have invested in new painting technology, which is reflected in even better surface quality and durability. The appearance is finished by new glazing fillets with no nails. As a guarantee of quality, we grant Pihla doors a long 10-year straightness guarantee.

## LOCKING OPTIONS

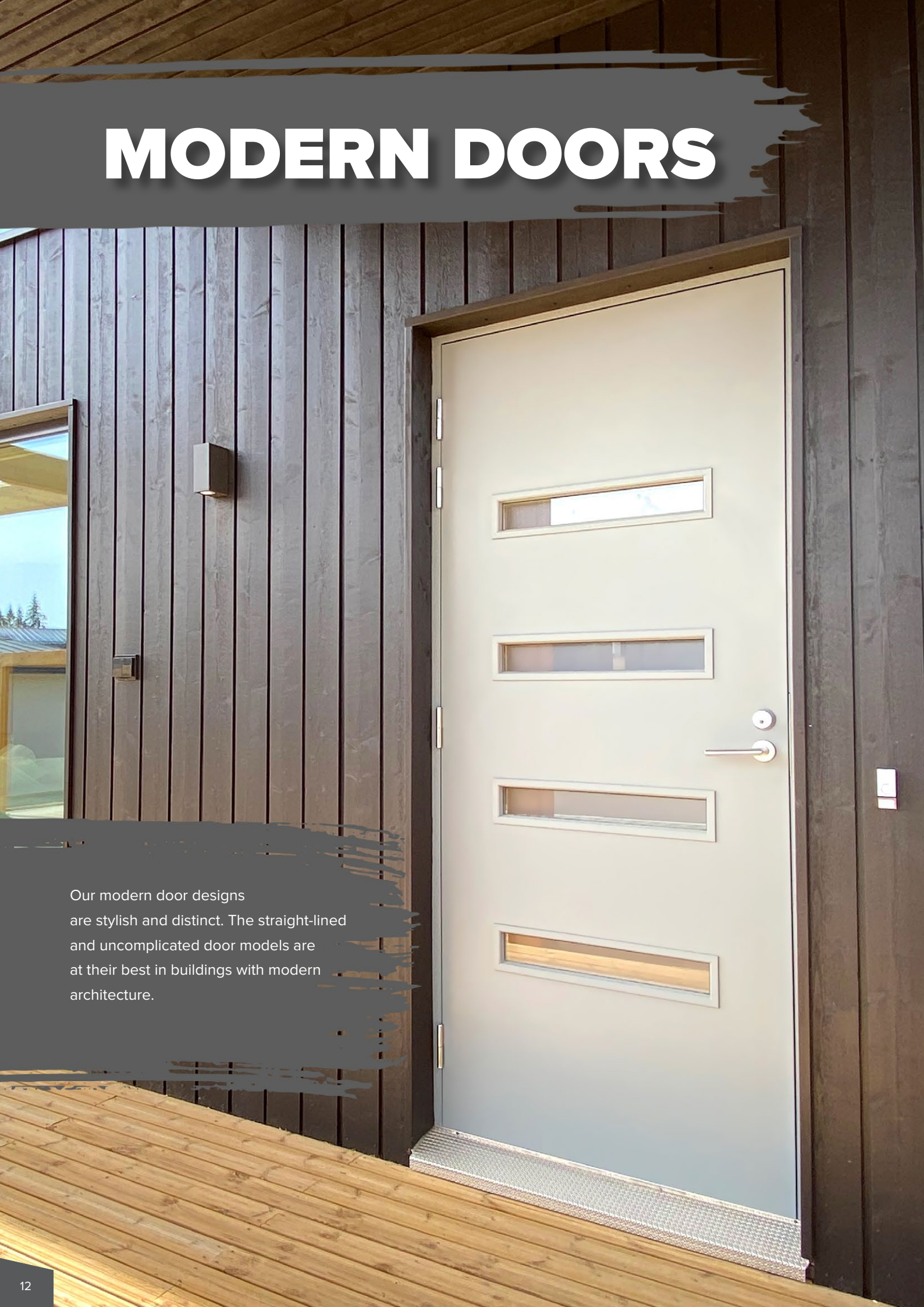
We offer a wide range of locking options for external doors. In addition to standard locking, you can choose the Yale Linus smart lock system that opens with a smart phone, regular key or code. Yale Linus is available in black and silver.



Yale Linus smart lock (left) works with a traditional key, but also with a smart phone or a door code. Yale Linus is installed on the existing door cylinder. Yale Doorman lock (right) doesn't require a separate cylinder.

For our doors we also offer Yale Doorman smart lock system with access via keyless entry. In addition to smart locking systems, our doors are suitable for many different electric locks, such as Abloy and Rollock.

# MODERN DOORS

A photograph of a modern, white, straight-lined door with four horizontal glass inserts. The door is set in a dark wood-clad wall. To the left of the door is a small, square, silver light fixture. To the right is a small, rectangular, silver door handle. The door is slightly ajar, revealing a silver threshold. The floor is made of light-colored wood planks.

Our modern door designs are stylish and distinct. The straight-lined and uncomplicated door models are at their best in buildings with modern architecture.



# MODERN COLLECTION

M10



M11



M12



M13



M14



M20



M21



M22



M23



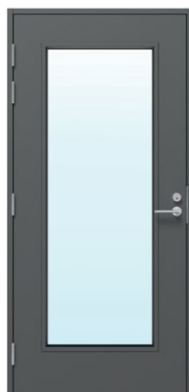
M30



M31



M32



M33



M40



M41



- Varma
- Fire door EI30
- Vieno
- Termo
- dB door
- Fire door EI15

# PERINNE DOORS



The traditional Perinne door models are best suited to emphasising the entrance to a traditional style building. At the same time, the Perinne collection also has a fresh touch.



# PERINNE COLLECTION

P10



P11



P12



P13



P14



P20



P21



P22



P23



P30



P31



P33



P40



P41



P42



- Varma
- Fire door EI30
- Vieno
- Termo
- dB door
- Fire door EI15

# SUOSIKKI DOORS

The Suosikki collection includes Pihla's most popular door models. The Suosikki models are smoothly suited to a variety of applications.



# SUOSIKKI COLLECTION

S10



S11



S12



S13



S20



S21



S22



S23



S24



S30



S31



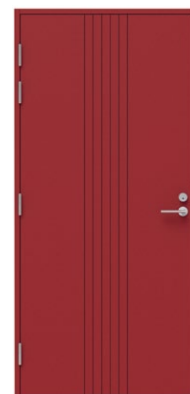
S32



S33



S34



S40



S41



S42



S43



- Varma
- Fire door EI30
- Vieno
- Termo
- dB door
- Fire door EI15

# BACKYARD DOORS

Garden doors, back doors, side doors, balcony doors, utility room doors, terrace doors, backyard doors. These doors have many names in accordance with their purpose. Mostly these doors are installed in a central place and used often, so even the back door should be selected carefully.



# BACKYARD COLLECTION

T10 M12



T10 M14



T10 M16



T10 KL



T10 MX



T20 M12



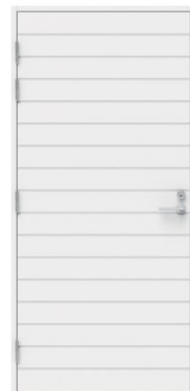
T20 M14



T20 M16



T20 U



T30 M12



T30 M14



T30 M16



T30 U



- Varma
- Fire door EI30
- Vieno
- Termo
- dB door
- ⦿ Fire door EI15

## ENHANCE YOUR STYLE WITH OPTIONS

The Pihla backyard door's structure exactly matches the front door, starting from the study door leaf. In addition, the same range of accessories and freedom of choice are available for the backyard door. The height of the lower edge of the glass opening can be set at the desired height, for example, in line with an adjacent window. In addition to models, colours, measurements and glass, the style of the door can be accentuated by equipping the glazing with decorative lattices in the colour of the door. The decorative glass options are Satiini and Stippolyte, and a cremorne bolt with a wind stop is also available as a locking option.

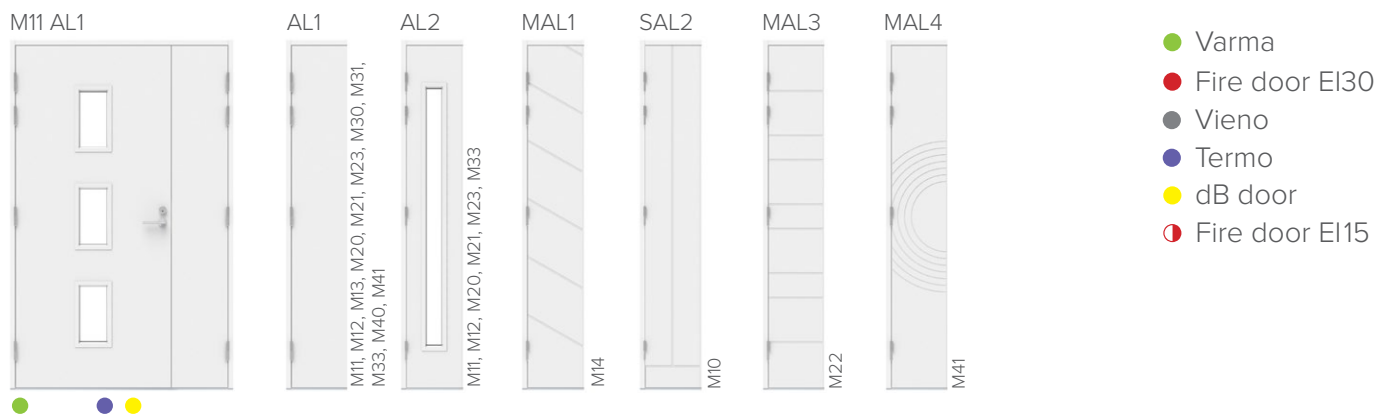
# EXTENSIONS



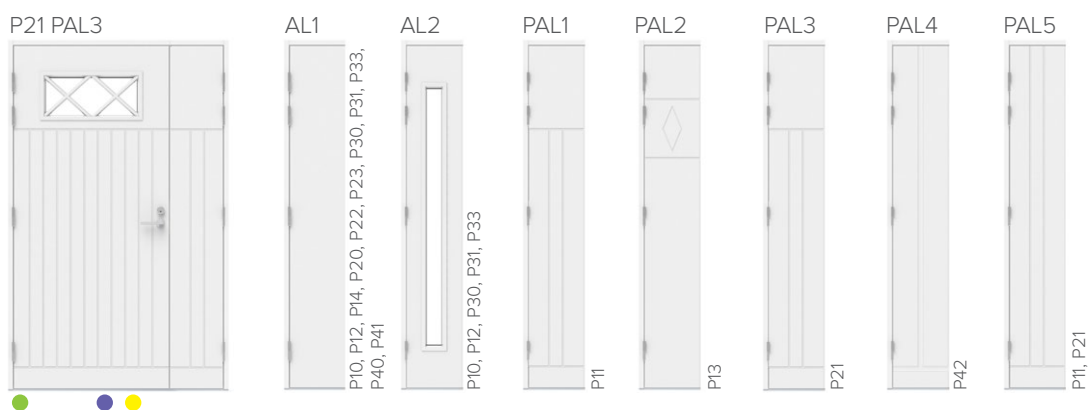
An extension is used to make Pihla's front door more practical and improve its appearance. Extensions can be fixed or openable. An openable extension fitted in the same frame allows the door opening to be temporarily enlarged for moving larger items. A fixed extension comes in its own separate frame.



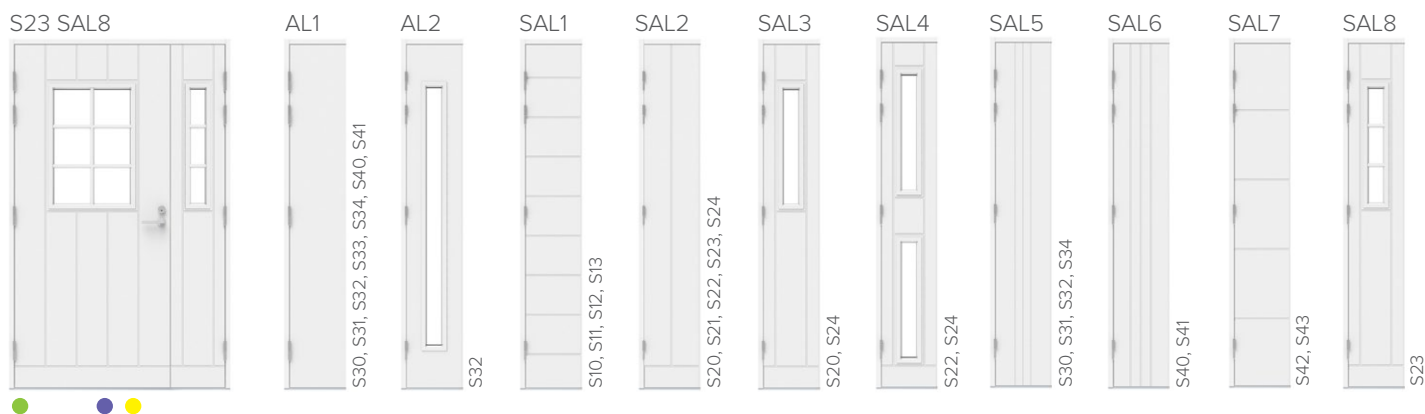
# MODERN COLLECTION EXTENSIONS



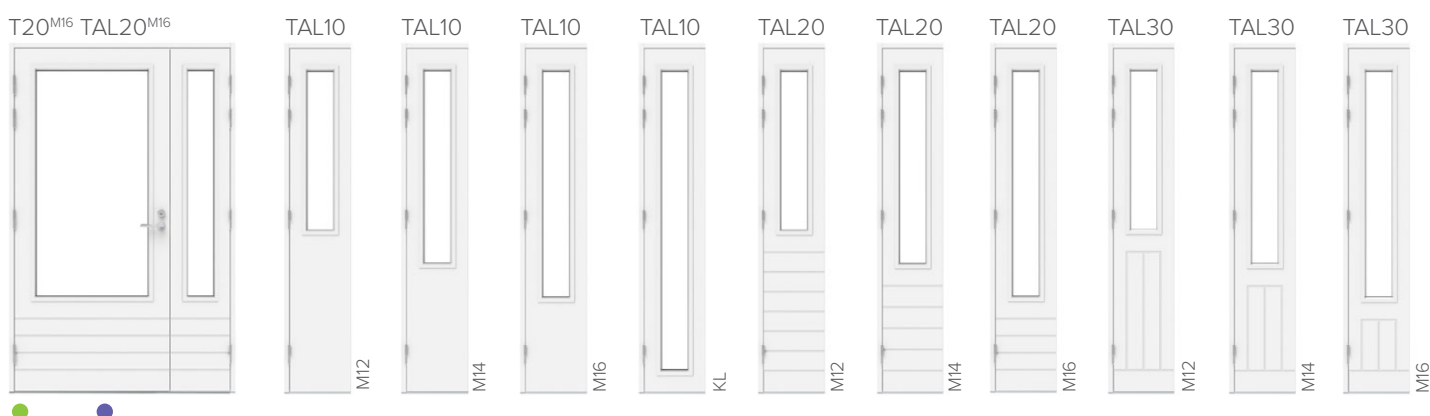
# PERINNE COLLECTION EXTENSIONS



# SUOSIKKI COLLECTION EXTENSIONS



# BACKYARD COLLECTION EXTENSIONS









## WOODEN DOORS

Fully wooden doors have made a strong comeback. Pihla and our sister brand Sydänpuu have jointly designed a new timeless front door that is hand-made by a carpenter. The door range is ideal for both modern and more traditional styles.

### COLOURS AND ACCESSORIES ACCORDING TO YOUR NEEDS

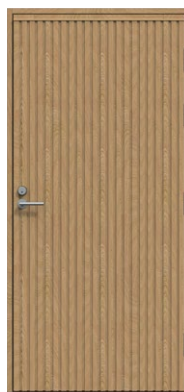
Wooden doors are available with various stain colours, leaving the living wooden surface clearly visible. After tinting, the door is finished twice with durable varnish. Wooden doors can also be painted with a completely covering paint according to Pihla's external door colours.

Pihla wooden doors are available with a wide and impressive selection of handles, versatile locks and a modern smart lock that makes it easier to use the door.

### LET LIGHT IN

A fixed, fully wooden window can be designed to either side or above the wooden door with the same surface treatment as the door. This makes for an impressive entrance and lets natural light in. The window can also have aluminium cladding.

PUU1



PUU2



PUU3



PUU4



PUU5



PUU6





# DOOR LIGHT







# LIGHT FOR YOUR DOORSTEP

## EXTERNAL LIGHTS IMPROVE SAFETY

Good outdoor lighting ensures adequate lighting of access routes and entrances. Lighting improves safety and comfort when moving and can indicate the presence of residents. The lighting can also emphasize the facade in a stylish way.

## EFFORTLESS AND RELIABLE

The Pihla Door Light operates automatically, so you do not need to remember to turn on the light. This way the door light is always on when you arrive at your home as autumn dusk is falling or in the dead of winter.

The Pihla Door Light works with LED light technology designed for outdoor conditions to ensure the longevity of the light.



The Pihla Door Light illuminates the passage to the entrance and, when the door is open, the light also reaches the interior. A door light is available as an accessory for front doors, back doors and wooden doors.



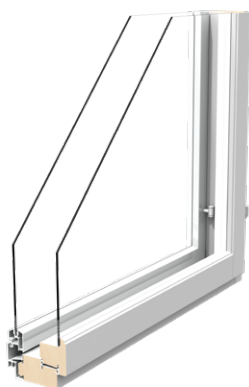
# KESÄMÖKKI PRODUCTS

The Pihla Kesämökki product family is suitable for both recreational dwelling renovators and new holiday home builders. The frame depths and glazing of the Kesämökki products have been specifically designed for the needs of cottages, leisure homes and outbuildings. The frame depth is 95 mm in the opening Kesämökki window and 92 mm in the fixed window as well as the Kesämökki door.

Various glass options are also available for the Kesämökki windows and doors, as needed. The colour options are the same as those for other Pihla products. The aluminium surfaces on the outside of the windows ensure good weather resistance and easy care.

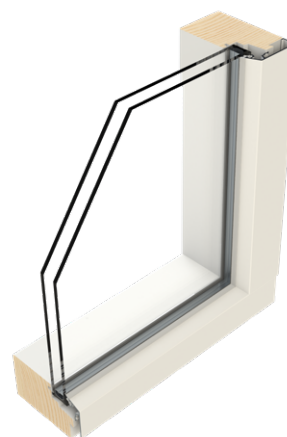
## PIHLA MÖKKI – OPENING WINDOW

Flat glass in both sashes. The inner sash can also be equipped with double insulating glazing. The outer sash and cladding are durable aluminium.



## PIHLA MÖKKI – FIXED WINDOW

An easy-to-maintain wood-aluminium window with only two glass surfaces to wash. The window has a double insulating glass.





# DOORS IN THE KESÄMÖKKI COLLECTION

## PIHLA KESÄMÖKKI DOORS

The atmosphere of a summer cottage requires a suitable door. The Pihla Kesämökki collection has several popular door models that create a cottage atmosphere and functionality. Equipped with big glass openings, the doors provide a nice view and let a lot of natural light in.

The door leaf of the Kesämökki door is 60 mm thick and the standard colour is off-white NCS S0502-Y. The frame depth of 92 mm is particularly well suited to light cottage construction.



K40 M12



K40 M14



K40 M16



K40 KL



K40 U



K50 M12



K50 M14



K50 M16



K50 KL





# PATIO

## VARMA

• U-value 0.84 ... 1.0

## TERMO

• U-value 0.80

## DB

• U-value 0.87

•  $Rw+C_{tr}$  37

## GREAT COMBINATION

The Patio door combines two excellent Pihla doors. Patio has the strong plate-structured door leaf used in external doors, and the exterior of the door features the weather-proof aluminium finishing familiar from the balcony doors. Due to the aluminium finishing, Patio goes very well next to Pihla windows.

## VERSATILE LOCKING

Versatile locking options enable using the door in different applications and for different needs. Pihla Patio can be equipped with a cremorne bolt with a wind stop or a middle lock used in external doors. Both can be optionally equipped with a lock cylinder, making it possible to lock the door from the outside and using the door, for example, as a second front door for the house. The lock cylinder can be keyed for the same key as the other house doors. A similar handle with the Pihla external door can be selected for a Patio door with middle lock.

## MANY MODELS

The Patio door is manufactured with one and two glass openings, fully glazed and as double doors. The size of the glass opening can be freely defined, The frame depths are 130, 170 and 210 mm.



The solid section of the Pihla Patio door can be selected either with a smooth surface or a panel profile. The colour of the exterior aluminium parts can be selected from four different standard colour options.



Balcony door cremorne bolt handle is available in silver and black.



Pihla Patio can be used as a balcony door, patio door, garden door and utility room door. Due to outer aluminium surfaces and matching outer cladding colour options, Patio is easily combined with Pihla windows. The inside surfaces of Patio are always painted. The standard inside colour is white.







# RATIO

## FRENCH BALCONY DOOR

The inward-opening Ratio balcony door with one leaf is ideal for French balconies and other small balconies. Equipped with a multi-action bolt, the best features of the door include tightness, stylishness, delicate look and a large glass surface that allows the maximum amount of light into the home.

## EASY AND SAFE VENTILATION

The Ratio door has a dedicated tilted position for safe ventilation. The upper edge of the door opens while the bottom edge remains shut. The door leaf stays firmly in place, leaving the area in front of the door free. The vented position is also safe for homes with pets, preventing cats and dogs from running away. For added child safety, the door features a child-proof handle.

## STYLISH GLASS BALUSTRADE

Ratio can be equipped with an optional integrated glass balustrade, delivered readily installed on the door. Once the door is installed, the balustrade is also safely in place.



The Ratio door features a convenient vented position.



Ratio has a half-handle on the inside.





# OTHER BALCONY DOORS

## OTHERS

Terrace and utility room doors on pages 18–19.

## WOOD-ALUMINIUM DOORS

In addition to the Patio and Ratio doors, Pihla's balcony door range includes three other balcony doors, all with weatherproof aluminium cladding on the outside.

## INWARD-OPENING BALCONY DOOR

Ideal for small balconies or French windows, the door has two inward-opening door leaves. The best features of the door include sound insulation, energy-saving and compatibility with Pihla's windows.

## INWARD- AND OUTWARD-OPENING BALCONY DOOR

The traditional balcony door has two door leaves. One of them opens outward and the other inward. The two-leaf balcony door provides good heat and sound insulation.

## STAINED BALCONY DOOR

Pihla's stained Parveke KK balcony door is a perfect match for stained windows. Parveke KK is a single-leaf outward-opening door.



The stained Parveke KK balcony door shows the wood grain beautifully.

# PIHLA ACCESSORIES

Pihla products have an extensive selection of accessories that can be installed at the factory. The most popular optional window accessories are blinds, mosquito sashes, decorative lattices and ventilation valves. Door accessories include handles, lock cylinder, kick plate and doorbell.



Straight handle, white



Straight handle, chrome



Oval handle, white



Oval handle, chrome





# VENTILATION

## EASY VENTILATION

For ventilation, the window can be equipped with ventilation window fittings, which makes the opening and closing of the window or ventilation hatch easy and safe, using one handle.

## MOSQUITO SASHES

A mosquito sash, easy to remove from the window for the winter, is available for the ventilation window. The screen material is either plastic or metal. The metal screen can be left in place for winter.

## POLLEN SCREEN

Designed especially for people with pollen allergy, Pihla's new Siitepölyverkko pollen screen for ventilation windows keeps insects and pollen out. The fine-mesh screen with special coating filters up to 99% of hay and birch pollen. The screen can also be purchased for existing Pihla ventilation windows.

## HANDLES

The handle range includes styles from angular to more decorative oval design to suit the design of the window. The pine handle is ideal for a sauna window.



Ventilation windows are equipped with the Autolock roller arm stay, which makes it easy to open the window for cleaning.



Opening window with a ventilation hatch.



# BLINDS

The blinds allow you to adjust the room brightness and limit the sun's heat and direct sunlight. They also provide excellent protection from view. It is convenient to purchase the blinds at the same time as the windows and doors, so that they can be installed at the factory (except for fixed windows). There are several colour options available besides the standard white.

## INKA

Pihla's integrated Inka blind is stylish and easy to use thanks to the single adjustment knob. The Inka blind is suited to Pihla Varma and Termo windows. Protected between the inner and outer sashes, the slats will stay smart and intact for years, even decades.

Inka blinds are also available with a safe winding mechanism that winds the strings out of sight, keeping them out of the reach of children, for example.



The Inka blind is easy to operate. The amount of light in the room is adjusted by turning the slats with the adjustment knob. The same knob can be used to adjust the blind at the desired height, with the extra lifting string rolled around the string knob.

## VEKKI

The easy-to-use Vekki pleated blind is suited to Pihla's fixed windows and single-leaf balcony doors. Featuring a two-fold mechanism, the Vekki pleated blind can be adjusted to the desired height steplessly upward from the bottom or downward from the top.



The Vekki pleated blind features convenient height adjustment. Vekki sits firmly in place when the door is opened and in windy weather with the door open.

## SURFACE BLINDS

There are also surface-installed blinds available for fixed windows and balcony doors.



## VEKKI PLEATED BLIND

Pihla's patio and balcony doors and fixed windows can be fitted with the very durable and easy-to-care-for Vekki blind. In addition to several colour options, Vekki is also available as a pleated blackout blind.



# KLIK FRESH AIR VALVE

The KLIK fresh air valve is a window valve for opening windows that automatically preheats the inlet air. The valve highlights design and technical performance. The high air volumes of the valve add comfort to living, bringing plenty of clean and fresh air into the home. The KLIK S straight window valve operates without preheating and is suitable for opening and fixed windows as well as balcony doors.

## FRESH INTERIOR AIR

Conveniently positioned in the window sash, the KLIK fresh air valve enables a steady and comfortable flow of fresh air. If necessary, it is also possible to temporarily close the valve completely.

## STYLISH

The stylish and easy-to-use valve is available on Pihla's opening window models and is pre-installed at the factory. We recommend valves for homes with mechanical exhaust ventilation. The KLIK fresh air valve is available in white and grey.



Removing the valve for maintenance operations is easy. Filters can be handily replaced without tools.

## WATCH A VIDEO:

[www.pihla.fi/klik-raitisilma-venttiili](http://www.pihla.fi/klik-raitisilma-venttiili).



In cold weather, the inlet air is preheated using the heat in the space between the window panes.

In warm weather, fresh inlet air flows directly through the valve.



## AUTOMATIC TEMPERATURE ADJUSTMENT

**KLIK**valve automatically adjusts the inlet air pre-heating according to the outdoor temperature. In cold weather, the inlet air is preheated using the heat in the space between the window panes. In warm weather, fresh inlet air flows directly through the valve for maximum coolness and comfort.

## KLIK FRESH AIR VALVE IN A NUTSHELL

- Stylish and practical design
- Plenty of clean air
- Automatic temperature adjustment
- Excellent sound insulation
- Easy to use
- Easy-to-replace filters
- No feeling of draught





# DECORATIVE LATTICES

The appearance of the windows and the house can be enhanced with decorative lattices. Various types of lattices are available for Pihla's products.

## LATTICE

The profile widths of the removable lattice are 25, 60 and 90 mm. The lattice is suited to both opening and fixed windows.

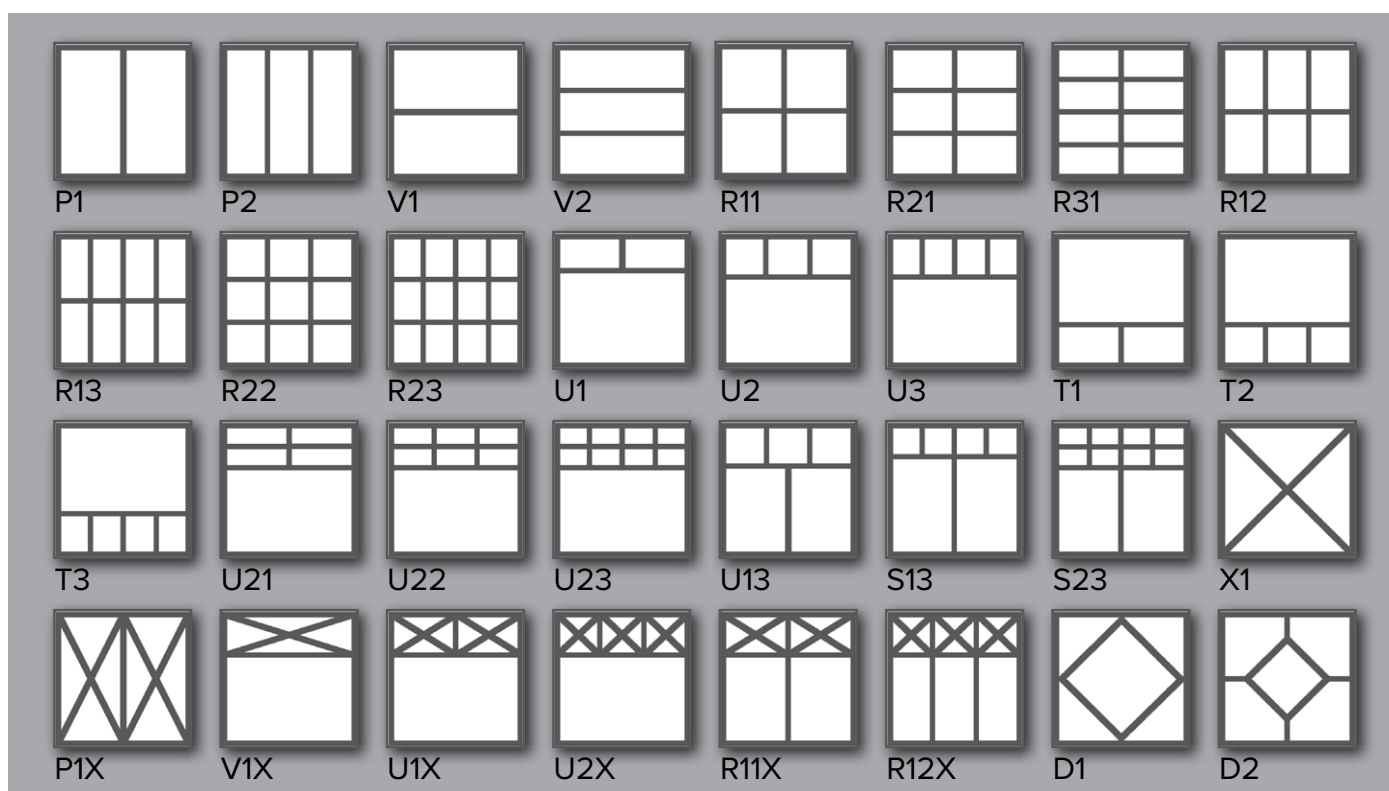
## FIXED LATTICE

Varma windows can also be fitted with fixed lattices on both sides of the outer sash glass.

The profile widths are 24, 56 and 110 mm.

## REMOVABLE LATTICE

Patio balcony doors can be installed with removable lattices, which are only manufactured as horizontal and vertical lattices. The profile width of the removable lattice is 24 mm.



The most popular lattice models. There are limitations regarding crosses and diamonds.





## EXTERNAL DOOR HANDLES

Pihla's handle selection offers suitable models regardless of whether you prefer the traditional or the modern style. The handles are made of brass, aluminium or stainless steel, depending on the model. Surface treatment options vary from polished brass to brushed steel. All handles come with a quick attachment pin for easy installation.



Trondheim, stainless steel  
• Brushed surface



Rodos, brass  
• Brushed chrome



Cannes, brass  
• Brushed chrome



Amsterdam, aluminium  
• Silver + stainless steel



Stockholm, aluminium  
• Silver



Dallas, aluminium  
• Black



# GLAZING

The selection of glazing significantly influences both the product's appearance and its comfort of use. Some customers prefer glass that blurs the view, whereas others want to see clearly through the glass. The selection of window glazing is also strongly guided by energy-efficiency and safety.

## GLASS ACCORDING TO YOUR NEEDS

Glass thickness is designed for window size and conditions. In addition to clear standard glazing, toughened, sunscreen, safety and noise reduction glazing are also available, as well as patterned or coloured glazing. Sensible and comprehensive glazing solutions have been designed for Pihla products to meet many needs.

## SUN PROTECTION

Large window surfaces bring plenty of light in the room, but sunlight can also cause exces-

sive heating of the rooms. Sunscreen glazing significantly reduces incoming heat radiation, glare and harmful UV radiation, while protecting furniture from fading. Sun protection is recommended especially for south- and west-facing windows.

## ANTI-FOG GLASS

Window fogging is a common and normal phenomenon, especially in rapidly changing temperatures. However, the problem can be addressed by using an anti-fog coating on the outer windowpane, which reduces the cooling of the outer surface.



Cotswold



Stippolyte



Flemish



Satin





# PIHLA ANTENNA GLASS

At its best, the home is a comfortable and safe haven for a good life – especially when connections with the outside world work smoothly. The next-generation patented Pihla Antenna glass is a solution to mobile network connectivity problems at home. The Antenna glass enables functional mobile connections to the interior now and in the future, regardless of the operator. So it's good to be home.



AWARD  
WINNING  
SOLUTION  
British Glass  
Focus Awards  
2020: Innovative  
solution award

## GOOD TO CONSIDER IN PLANNING

Issues connected to mobile phone signals play an important role when planning window renovations or choosing windows for a new construction. It is recommended to have at least one Pihla Antenna glass per room, more in large rooms. The Antenna glass requires no electricity or maintenance. The Antenna glass is installed in the window at the factory.

## GUARANTEED GOOD CONNECTION

The integrated antenna\* for Pihla windows reduces the signal loss caused by structures of the building and also facilitates a reliable mobile signal indoors. The Pihla Antenna glass also serves as an effective auxiliary glass for a mobile router, when the router is placed near the Pihla Antenna glass. The Pihla Antenna glass utilises Finnish state-of-the-art technology and is made in Finland.

## PIHLA ANTENNA GLASS

- is durable and safe and needs no maintenance.
- is a patent-protected solution that provides good mobile phone reception and good connections in the 3G, 4G and 5G networks, regardless of the operator.
- does not affect the window's other functions or limit the use of blinds or other glass options.



The antenna is just a very thin pattern in the glass, hard to detect with the naked eye. The Antenna glass receives the signal from the mobile network and distributes it in beam form throughout the room.

Watch a video: [www.pihla.fi/antennilasi-ikkuna](http://www.pihla.fi/antennilasi-ikkuna).

\*Partner  
**STEALTHCASE**

# COLOURS

Pihla products are always delivered with finishing. White is popular, but the popularity of other colours has also increased. An external door does not always have to be white, either! We can also manufacture doors and windows in the colour you want, if you provide us with the exact colour codes. We offer four standard colours for external aluminium surfaces.

## PAINT

The woodwork of the windows are painted. The paint used is water-soluble acrylic paint, with surface emission class M1. The environmentally-friendly paint produces no toxic emissions. The standard colouring for painted surfaces is white NCS S 0502-Y.



White  
NCS S 0502-Y

### Note:

Always check the final colour from the colour chart; due to print technology, there may be colour differences in the brochure. The standard colour is white.

## STAINING

The woodwork of windows and wood-aluminium balcony doors can also be stained. The staining is done with water-soluble stain varnish. The standard stain colour is a colourless pine. The other shades are walnut, oak and white lacquer.



Pine  
Clear



Walnut  
TM-1806



Oak  
TM-1802



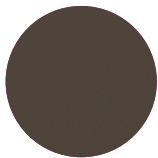
White lacquer  
TM-T5715

## ALUMINIUM SURFACES

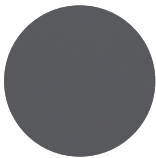
The external aluminium surfaces of windows and patio doors are powder-coated. The outer sash of opening windows and the outside leaves of balcony doors are also available in two colours; the surface visible on the inside can be white, whereas the exterior can be the same colour as the frame's outer cladding.



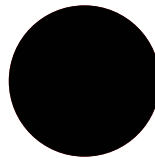
White  
RAL 9010



Dark brown  
RR32



Dark grey  
RAL 7024



Black  
RAL 9005



## EXTERNAL DOOR COLOURS



White  
NCS S 0502-Y



Light grey  
RAL 7047



Beige  
RAL 1019



Slate-grey  
RAL 7031



Cosy red  
RAL 3011



Dark Grey  
RAL 7024



Dark brown  
RR32



Black  
RAL 9005







# Pihla

Varmasti hyvä.

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Pihla 6/2022