

# WINDOWS AND DOORS



A great choice for a Finnish home.

# OUR PIHLA

Pihla's product family is the most popular choice in Finland. Its appearance, strong structures, optional accessories and energy-efficiency make it easy to choose windows and doors. You can count on Pihla products in all situations!



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## **RISING TO THE CHALLENGE**

The Pihla range includes windows and doors for repairing the old as well as for building new.

The selection includes two opening window models Varma and Termo and Fixed windows.

The extensive door range includes products from external doors to trendy sliding doors.

## **VERSATILE PIHLA**

Thanks to their durable joints and notable material strengths, Pihla products can be installed in any building. Pihla products represent cutting-edge technology, yet 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 new buildings and for 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 in Finland.





# VARMA WINDOW

## VARMA

- U-value 0,78 ... 1,0
- Energy rating A+... A

## ENERGY-SAVING

Pihla Varma is an inward opening, MSE type, double-sash wood-aluminium window. Due to the energy-efficient glazing and excellent sealing, Varma has one of the best energy ratings.

## VARMA PALO

- EI 30

## A PIONEER IN TIGHTNESS

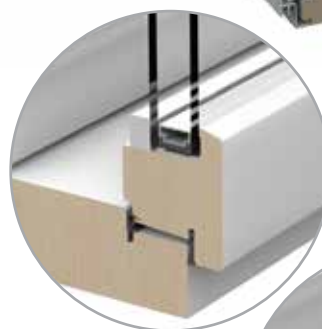
Varma has three sealing surfaces: two seals in the inner sash and one in the outer sash. Varma has achieved top results in air-tightness, water-tightness and wind-pressure resistance tests. Varma is neat and elegant as well as tightly sealed and reliable.

## STURDY AND DURABLE

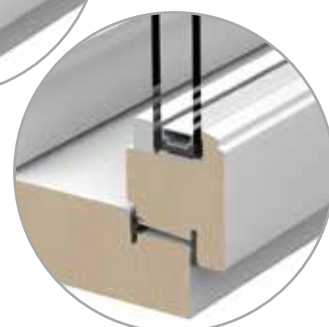
The solid woodwork of the frames and sashes is equipped with traditional, durable joints. The inner sash, made of pine, is strong and has a thick insulating glass unit. The aluminium outer sash has a steel lock and sturdy hinges.

## 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.



Straight window style Pihla Varma S



Classic window style Pihla Varma



# TERMO WINDOW

## TERMO

- U-value up to 0,63
- Energy rating up to A ++

## TERMO PALO

- EI 30



## EFFICIENT SOLUTIONS

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 an excellent U-value, noise 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 as well as a decorative or straight inner sash. Pihla Termo is also available as an inlet air window and an EI30 class fire 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, Termo windows always have the best glazing solutions and equipment level.





# FIXED WINDOW

## VARMA

- U-value 0,73 ... 1,0
- Energy rating up to A++

## TERMO

- U-value up to 0,67

## TERMO TOP

- U-value up to 0,57

## DB

- U-value up to 0,67
- $R_w + C_{tr}$  up to 40 dB

## INCREASING POPULARITY

The interior of Fixed window Varma Kiinteä and Termo Kiinteä is timber, and the external cladding is aluminium. Thanks to the triple energy-saving insulation glass, the window is categorised in the best energy classes. Almost maintenance-free aluminium surfaces and only two washable glass surfaces also increase the popularity of Fixed.

## FLOOR TO CEILING

Fixed windows are suited to the construction of large window walls. The look of the window solution can be enhanced with thin glazing bars. In large window walls, the excellent heat insulation of Termo Fixed is especially vital.

## GREAT APPEARANCE

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

## RANGE

In addition to Varma and Termo structures, fixed windows are also available as an EI30 class fire window Kiinteä Palo.



## PALO

- Fire window EI30



Varmakiinteä



Termokiinteä



Termokiinteä TOP



Kiinteä dB





# PATIO BALCONY DOOR

## VARMA

- U-value 0,84 ... 1,0

## TERMO

- U-value up to 0,80

## DB

- U-value 0,87
- $Rw+C_{tr}$  up to 37 dB

## A MULTIFUNCTIONAL DOOR

Patio is a single-leaf outward-opening balcony door with aluminium cladding. Patio can be used as a balcony door, patio door, garden door and utility room door. Patio is an ideal match for Pihla windows thanks to the aluminium exterior. Patio offers the same colour options as Pihla windows.

## VERSATILE LOCKING

Versatile locking options enable using the door in different applications and for different needs. The Patio door can be equipped with a cremorne bolt with a wind brake like balcony doors 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. A similar handle with the Pihla external door can be selected for a Patio door with middle lock.

## SEVERAL MODEL OPTIONS

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, for example, at the same height as the window next to it.



Patio cremorne bolt handle.



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 apartment.

## 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 also is safely in place.



The Ratio door features a convenient vented position.



Ratio has a half-handle on the inside.





# OTHER BALCONY DOORS

## SEE ALSO

other patio and utility room doors on page 15.

## WOOD-ALUMINIUM DOORS

The Pihla product family includes two balcony doors with wood-aluminium structure. The doors have two door leaves, weather-resistant aluminium-clad exterior and timber interior in common.

## 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 tightness, noise insulation, energy-saving and a delicate look.

## INWARD- AND OUTWARD-OPENING BALCONY DOOR

The traditional balcony door has two door leaves. One of them opens outward and the other inward. The 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.



Both leaves of the inward-opening two-leaf balcony door open at the same time.



# EXTERNAL DOORS

## VARMA

• U-value 0,74 ... 0,81  
depending on the  
model

## TERMO

• U-value 0,69 ... 0,72  
depending on the  
model

## DB

•  $R_w + C_{tr}$  up to 36 dB

## PALO

• Fire door EI30

## STRONGER THAN THE USUAL

The sturdy door leaf of the external door has stabilising aluminium sheets on both sides and an HDF board surface. The outer surface of the door plate features groove design with model-specific depth and style. The design is also available on the inner surface, depending on the model.

## HOLDS OFF THE COLD

The strong door leaf guarantees excellent heat insulation even in models with glass. The glass unit is always triple-glazed low-emissivity glass.

## SIZES

The standard depth of casing is 170 mm, the same as with windows. Doors are also manufactured with a frame of 130 and 210 mm. The maximum door width is 1090 mm, maximum height 2290 mm.

## A WELL-EQUIPPED DOOR

The doors have double silicone rubber sealing; one in the frame, one in the door leaf. There are four hinges, adjustable vertically and horizontally. The latch of the lock body can also be easily adjusted. The outside of the Pihla Varma external door threshold is weather-resistant aluminium.



The Pihla external door has been designed to be sturdy and durable. Pihla's high-quality, reliable external door remains straight, is heat-retentive and secure and unaffected by even the most difficult weather conditions. The Pihla external door comes with a straightness guarantee of 10 years.





# STOREHOUSE DOORS

## EXTENSIVE RANGE

Pihla offers an exceptionally extensive storehouse door range, since all doors without opening are also manufactured as storehouse doors. The storehouse door range also includes window models. Storehouse doors are not manufactured with an extension or as double doors. The front doors form a stylish entity with compatible storehouse doors.

## CONSTRUCTION AND EQUIPMENT

The storehouse door is a lighter version of Pihla's front door. The door leaf thickness is 50 mm, and the depth of casing 112 mm. The storehouse door is equipped with 3 hinges. Other ordering options in addition to colours, handles and kick plate include suited keyhole and ventilation valves.

## STOREHOUSE DOOR SIZE

All Pihla storehouse doors are naturally manufactured to your measurements. The maximum door height is 2,290 mm, following the front doors, and the width is 990 mm.



The selection of Pihla doors also offers beautiful and stylish solutions for other buildings of the yard. Pihla storehouse doors are well harmonised with the colours and patterns of the front doors. This storehouse door features optional VA196 disc valves, handle and lock cylinder.

# PIHLA EXTERNAL DOOR MODELS

UO 110



UO 111



UO 118



UO 119



UO 120



UO 122



UO 130



UO 135



UO 140



UO 141



UO 153



UO 151



UO 163



UO 160



UO 165



UO 166



UO 167



UO 180



UO 162



UO 164



UO 192



UO 192X



UO 198



UO 125





● The model is also manufactured with a storehouse door structure.

● The model is also manufactured with an EI30 fire door structure.

UO 169



UO 196



UO 171



UO 173



UO 202X



UO 204



UO 170



UO 202



UO 205



UO 206



UO 208



UO 200



UO 510 M14



UO 5102 M16



UO 510



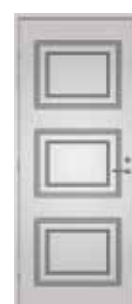
UO 567 M16



UO 5672 M14



UO 567



UO 557 M12



UO 5572 M16



UO 557



UO 210



UO 500



The Pihla door range also includes doors with large glass units, which are suitable for patios and utility rooms, for instance. The door range also includes double doors and external doors with extensions.

# 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.







# 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.

## 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.

## 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.



Mosquito sash with metal screen..



Straight handle, white



Straight handle, chrome



Oval handle, white



Oval handle, chrome



# BLINDS

The amount of light in the room can be adjusted by using blinds. 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)

## 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.



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.

## COLOURS

There are several colour options available besides the standard white.



## VEKKI-PERSIENN

Till Pihlas altan- och balkongdörrar samt fasta fönster fås den mycket hållbara och lättskötta Vekki-persiennen. Vekki finns i flera färger samt även som mörkläggningsgardin.



# VENTILATION VALVES

With valves, replacement air can be supplied in a controlled manner, thus ensuring the sufficient supply of fresh air into the rooms. Pihla windows can be equipped with inlet air window and replacement air valves, for which soundproofing and allergy filters are also available.

## BIOBE THERMOMAX A

ThermoMax A is an automatic inlet air window valve with a thermostat and efficient air intake. Detecting the temperature of the inlet air and the air between the window panes, the thermostat controls the valve automatically around the year. In an inlet air window with the ThermoMax valve, cold air from outside descends along the cooler outer glass surface to the bottom and then, as it warms up, rises along the warmer inner glass surface toward the control unit venting to the room. The valve unit inside the room directs the replacement air to the upper section of the room, mixing it with the warm interior air.



ThermoMax valve control. The valve air flow can be adjusted steplessly, but to ensure proper ventilation it is not recommended to close it entirely.

## REPLACEMENT AIR VALVE

Installed in the window frame, the VS replacement air valve is suited to both new and restoration construction projects. With the VS valve, replacement air can be supplied in a controlled manner with both gravitational and mechanical ventilation, thus ensuring the sufficient supply of fresh air into the rooms.



VS-valve.





# DECORATIVE LATTICES

The appearance of the windows and the house can be enhanced with removable lattices.

## 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.



# EXTERNAL DOOR HANDLES

The external door handle selection offers suitable models regardless of whether you prefer the traditional or the modern style. The handles are available in brass, satin chrome plated and stainless steel depending on the model. All handles come with a quick attachment pin for easy installation.



Trondheim



Rodos



Cannes



Amsterdam



Stockholm



Bergen





# GLASSES

Glazing selection 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 window glazing selection is primarily guided by energy-efficiency. There are several glass options for Pihla products.

## 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 is also available, as well as patterned or coloured glazing. Sensible and comprehensive glazing solutions have been designed for Pihla products to meet many needs.

### COTSWOLD

Cotswold glass provides excellent protection from view but still lets a lot of light through.

### STIPPOLYTE

Stippolyte glass provides good protection from view but still lets a lot of light through.

### FLEMISH

Flemish is clear decorative glass with a subdued pattern. The glass provides some protection from view.

### SATIN

Satin glass provides very good protection from view. This type of glass can also be called etched, opaline or milk glass.



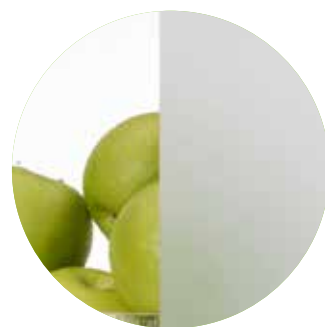
Cotswold



Stippolyte



Flemish



Satiini

# COLORS

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 inside and outside surfaces of windows and balcony doors 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.

## 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 colours are clear and walnut. Other available options are oak and white lacquer.



Pine  
Clear



Walnut  
TM-1806



Oak  
TM-1802



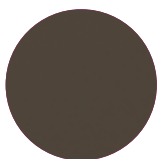
White lacquer  
TM-1771

## ALUMINIUM SURFACES

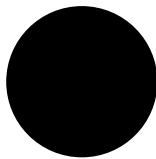
The external aluminium surfaces of windows and patio doors are powder-coated. In addition to the four standard colours, aluminium profiles can also be delivered anodised. The opening window's outer sash and the outside leaves of balcony doors are also available in two colours; the surface visible on 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



Black  
RAL 9005



Dark grey  
RAL 7024



## EXTERNAL DOOR COLOURS



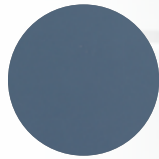
White  
NCS S 0502-Y



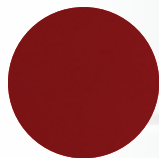
Light grey  
NCS S 2500-N



Beige  
NCS S 4010-Y30R



Slate-grey  
NCS S 6010-R90B



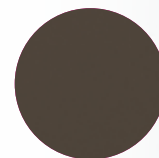
Cosy red  
NCS S 4050-Y90R



Grey  
RR22



Dark grey  
RAL 7024



Dark brown  
RR32



**BETTER  
RECEPTION  
+  
MORE RELIABLE  
INTERNET CONNECTION**



## PIHLA ANTENNA

Mobile phone reception indoors is a growing issue since the external walls of energy-efficient buildings, modern windows and dense urban development attenuate mobile phone signals. Pihla Antenna offers mobile signals a smooth route through the window structure, reducing reception issues indoors.

### 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 per room, more in large rooms. Discreetly integrated into the window frame, the antenna needs no electricity or maintenance. The antenna also does not detract from the window's other properties

### 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. Pihla Antenna also serves as an effective auxiliary antenna for a mobile router if the router is placed near the Pihla Antenna.



Integrated into the window, the passive Pihla Antenna receives mobile signals, reducing reception issues indoors. Pihla Antenna is installed in the window at the factory.

\* Pihla Antenna has been designed in cooperation with StealthCase Oy.





## PIHLA ANTENNA FACILITATES BETTER RECEPTION

- The discreet antenna is durable and safe and needs no maintenance.
- The patent-protected solution facilitates good mobile phone reception and good connections in the 3G, 4G and 5G networks, regardless of the operator.
- It does not affect the window's other functions or limit use. The signal is not affected by features such as blinds or anti-fog coating.



# Pihla

Varmasti hyvä.

Pihla Sales Service  
tel. +358 800 550 880

Äyritie 16, 01510 Vantaa  
[www.pihla.fi](http://www.pihla.fi)

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