

# Reliable Finnish service and quality products since 1977

We at Tiivi want to offer you the highest-quality premium windows and doors as well as installation services tailored to your needs and requirements.

We offer individuality, style, value and a better quality of life. Tiivi has been an integral part of Finnish homes for over 40 years.

Our window and door collections are the result of long-lasting experience and product development. We manufacture all our products in Finland at our own factories.

Product development and the high quality of products are in a key position, as our goal is to produce long-lasting solutions for our customers.

Sustainable development is one of the cornerstones of our operations. We are committed to halving the carbon dioxide emissions of our operations by 2030 and to being completely carbon neutral by 2050.

The high quality of our products is derived from the traditional and respected craftsmanship of Northern Ostrobothnia and uncompromising testing.

That is why we have the most comprehensive warranty on the market. Our installation service is ISO 9001 certified as the only operator in Finland, and the installation warranty is 10 years.

You can trust us even with your most demanding wishes.

We hope you will enjoy our brochure, products and services.

# Tiivi

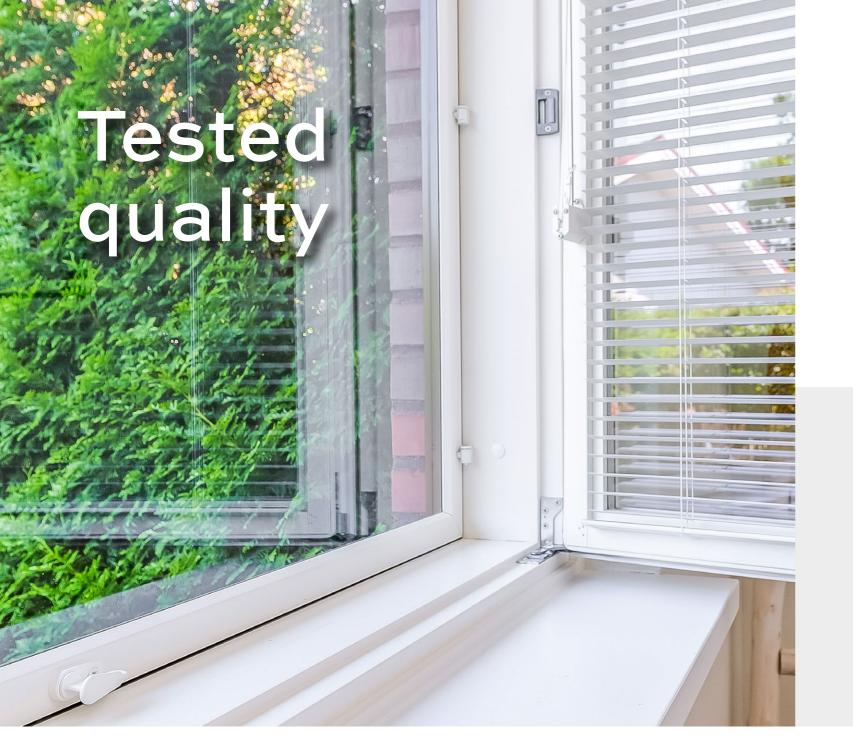
More than a window





# CONTENTS

- 3 Reliable Finnish service since 1977
- 6 Tested quality
- 8 Tiivi Kristalli window
- 12 Tiivi Maisema window
- 14 Tiivi BLACK window
- 16 Tiivi Connect Antenna Glass
- 18 Window accessories
- 20 Klik fresh air valves
- 22 Windows matching your needs
- 24 Tiivi external doors
- 26 Klassikko door collection
- 28 City door collection
- 30 Loft door collection
- 33 External door matching your needs
- 34 Extensions
- 36 Wooden panel doors
- 38 Tiivi balcony and patio doors
- 40 Window and door colours
- 42 Door accessories
- 44 Sliding doors
- 46 Garage doors
- 48 Technical specifications of the Tiivi products
- 50 Tiivi serves
- 52 Tiivi Installation
- 53 Tiivi Kristalli extended additional service
- 54 Customer references



We at Tiivi provide comprehensive and **long warranty periods**, as we rely on the durability of our tested products. **We test our products** continuously, in addition to the traditional standard tests, with additional product tests and quality surveys.

We are proud to share our product testing processes with you, as we want you to get only the best for your home. Tested components withstand tough conditions and make our products both long-lasting and safe. So you get tested performance for your investment when you choose Tiivi.

All the components and materials we use in manufacturing are subject to a rigorous product testing process. As we cherish the quality of our products, they are tested over

and over again. Random sampling is applied in the quality and safety testing of our products.

Before entering the market, our prototypes undergo a diverse and demanding testing process. In addition to individual components, we also test finished windows. As it is the product entity that counts, we want to be sure of the best possible outcome.

# **EXAMPLES OF OUR PRODUCT TESTING**



Lifting the blinds  $\times 15,000$ 



Valve position x 15,000







Cremone bolt open/closed x 15,000



Watertightness 1,200 Pa

# Safe shopping

At Tiivi, we are proud of and confident in the quality of our products. That is why we have the most comprehensive warranties on the market with long warranty periods.





6



### **BLINDS**

 We test window blinds in two ways: by rotating the controller to open and close the blinds and by lifting and lowering the blinds.

### **VALVES**

 We test the strength of the material used in the valves by adjusting the valve to different positions.

# **CREMONE BOLT**

 The cremone bolt used in our balcony doors is tested by opening and closing it to ensure the durability of the mechanism in your everyday life.

### **DOOR STAYS**

 We also test the strength of the door stays on balcony doors to ensure that the door can be locked securely in the desired position.

# WINDOWS

7

 We carry out, among other things, weather tests on finished windows to ensure tightness and waterproofness in all seasons. A window with proper tightness lasts considerably longer than a window that lets moisture through.





# New dimension of windows

The Tiivi Kristalli window is the **most advanced window solution** in its field, with many unique features. The windows of your home not only look amazing, but are also very easy to use. By investing in the windows of the Tiivi Kristalli collection, you are investing in high-quality living. Through long-lasting development and quality control work, we have been able to create the Tiivi Kristalli collection, whose materials and properties meet the high quality requirements of renovators.

### HIGH-QUALITY ENERGY EFFICIENCY

The non-warping inner sash of the Kristalli window is the strongest on the market with excellent heat insulation properties. The construction and diverse glazing solutions ensure excellent heat insulation, which is why the window meets even the strictest energy efficiency requirements.

- Available with triple or quadruple glazing
- Wood-aluminium structure
- Thermal transmittance coefficient (U-value) 1.0–0.59
- Noise reduction (dB R<sub>w</sub>+C<sub>+r</sub>) 38–49
- Total solar heat gain (G<sub>w</sub>-value) 36–22

### UNIQUE LOCKING MECHANISM

The unique frame-structured EasyLock locking mechanism with bearings ensures an easy, light and quick opening and closing of the window with one handle. In addition to ease of use, the mechanism ensures that the locking is extremely tight. We have also taken into account the safety of younger family members in the opening mechanism. Thanks to the small handles on the outer sash, you do not need a separate window opener when cleaning the windows. The small handles are durable and easy to lock and unlock.



The complete exterior aluminium system of the Tiivi Kristal-li windows has been rigorously tested for use and different weather conditions. The aluminium used on the outside of the windows has excellent weather resistance in all seasons. In addition, the surfaces are smooth and carefully finished, including the mitre joints. High-quality installation crowns the look of the window. We finish the installation on the outside of the window with casing or flashing, while paying attention to the workmanship.

# HIGHEST-QUALITY CONCEALED HINGES

The Tiivi Kristalli windows are equipped with concealed hinges that are of the highest quality and strongest on the market. Thanks to the durable construction of the hinges concealed between the sash and frame, even large windows do not need additional support when opened. You can also trust that the hinges will provide decades of flawless service. The hinges also make it easy to adjust the window with basic tools when the sash is in place. The inner sash of the window shows no hinges or cover plates, so your windows have a beautiful finished looked.

### FINISHED STRUCTURAL SOLUTIONS

The Tiivi Kristalli window is designed to meet even the most demanding needs of a home and raise living comfort to a new level. Taking into account the different needs of each home, it is possible to choose a Kristalli window without hidden hinges and EasyLock locking. The Kristalli window is also available in completely black (see Tiivi BLACK p. 14)











# Choose your style

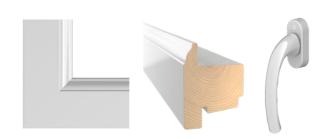
Thanks to the advanced painting technology, the wooden components of the Kristalli window have well-finished and high-quality surfaces. You can choose the colour of your windows to create the look that is just right for your home. Consider the style of your home – classic or modern? The classic window has more rounded and traditional look – creating a soft impression. The modern window, on the other hand, has a simple look with straight lines. Choose **the windows that look just right for your home**.

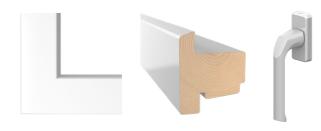
# CLASSIC STYLE

The classic window style of the Tiivi Kristalli window collection creates a harmonious and cosy environment. The classic window creates a rustic romantic look. It has a more rounded shape, leaving a soft impression.

# MODERN STYLE

The modern Tiivi Kristalli window has straight lines and a simple beautiful design. It is the perfect choice for a modern home.









# Maximising the view and natural light

Elegant and simple beauty and style for your home! Large fixed glass surfaces maximise the view and natural light. Large glass surfaces make **the surrounding landscape part of your home**.

Tiivi Maisema is a fixed window that beautifully connects the interior with the surrounding nature. Tiivi's picture windows, manufactured in Finland, enable the creation of a uniform glass surface up to over a height or width of four metres. The Maisema windows designed for Finnish weather conditions are of high quality, functional and energy efficient.

The wood material of the picture windows is of very high-quality non-jointed Finnish wood. Large windows typically have frames as deep as 210 mm. They make the window stand out and bring style to the interior design of the building. Maintenance of fixed and large glass surfaces is very easy, as there are only two surfaces to clean.

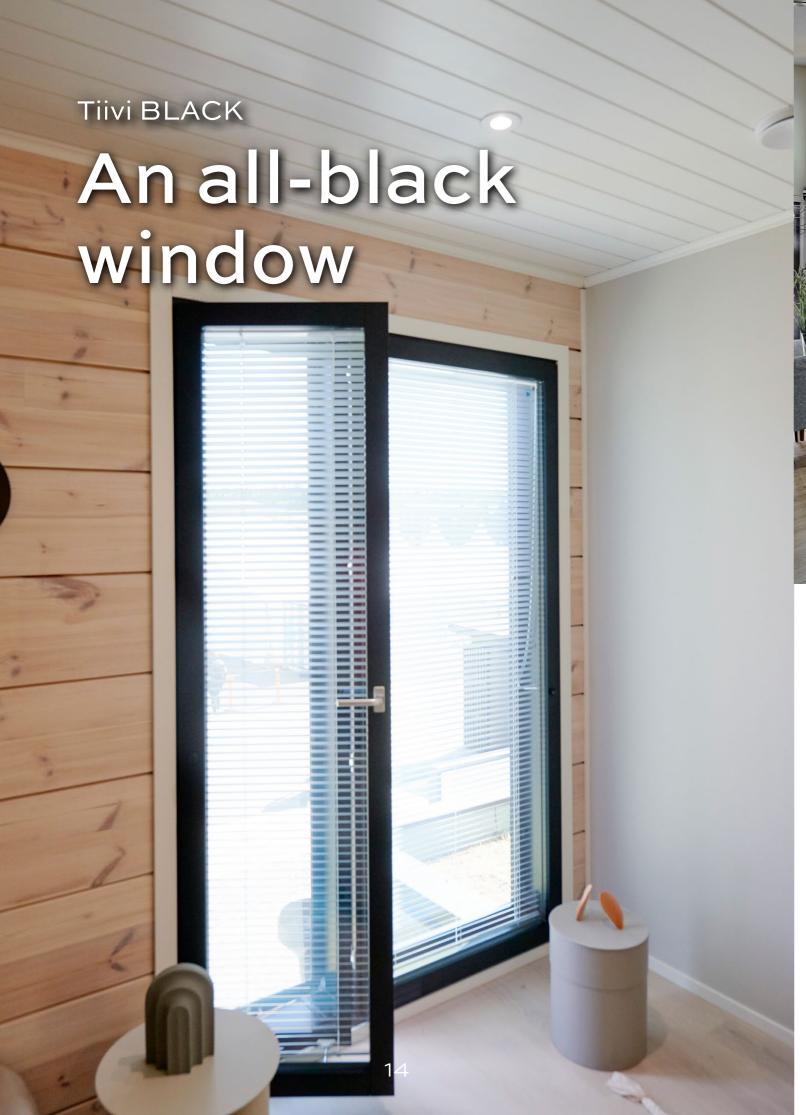
The Maisema window is also available with special glass panes: the decibel window brings peace and quiet to your home by effectively reducing noise from the outside, the type-approved fire window provides added safety, the sunscreen glass protects against sunlight and the Antenna Glass enables functional mobile connections.

# FRESH AIR WITHOUT COMPROMISING THE SCENERY

The new Tiivi Maisema window now also has an opening window part available. The innovative combination solution provides the benefits of an opening ventilation window without losing the advantages of a fixed window.

Opening windows are now also available with the hopper function, which means that the window is both side-hung and bottom-hung. By turning the handle in one direction, the window opens to the side, by turning it in the other direction, the whole window tilts from the top to a ventilation position.

- Two glass surfaces to clean
- Wood-aluminium structure
- Thermal transmittance coefficient (U-value) 1.0–0.68
- Noise reduction (dB R\_+C+\_) 26-41
- Total solar heat gain (G<sub>w</sub>-value) 49–15





# A simple, elegant choice

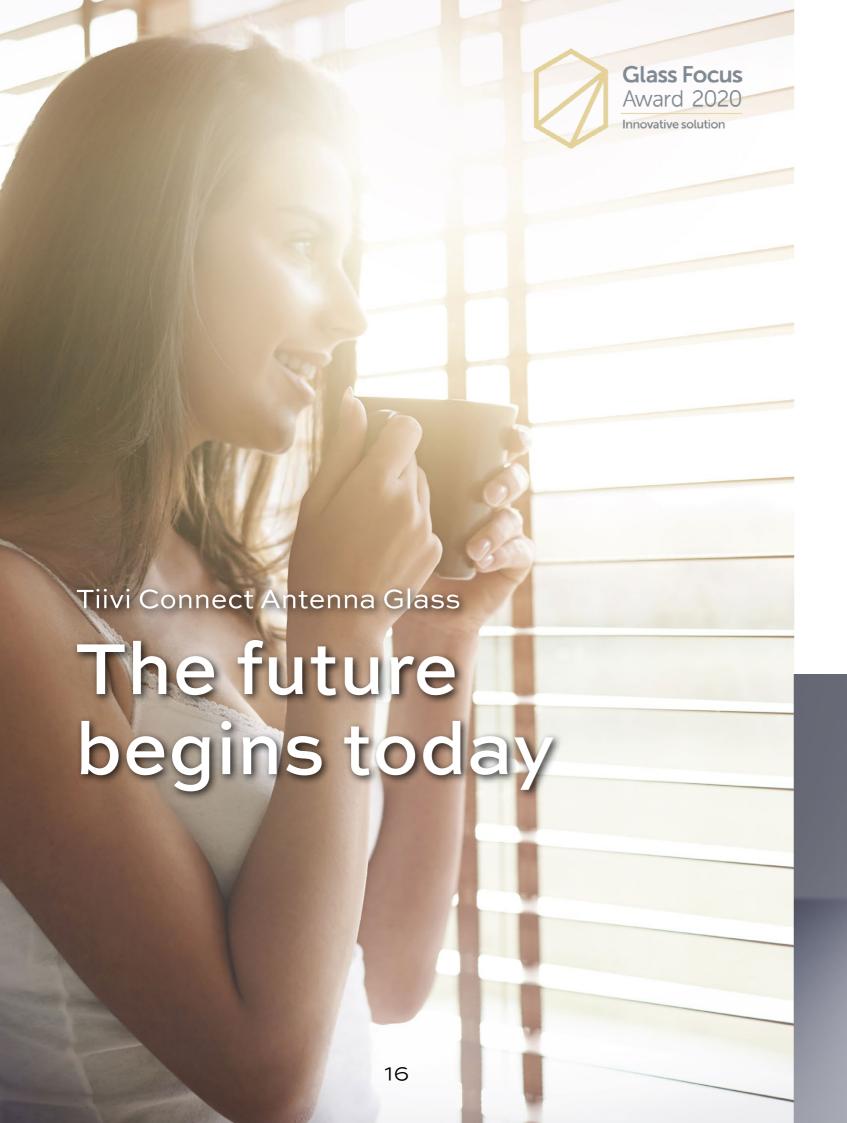
Tiivi BLACK is a double-sash, **all-black opening wood-aluminium window** with double insulating glass units in both sashes. Tiivi BLACK is completely black, both on the inside and out. The glazing designed for the black window protects the structures from overheating due to sunlight. Tiivi BLACK is an impressive and stylish choice.

The opening Tiivi BLACK is not only stylish but also a sensible choice, as a quadruple-glazed window structure provides better sound insulation and good protection against the sun's heat radiation. At the same time, living comfort is improved.

The handles and cover plates on the opening BLACK window are either black or silver. The colour of the slats on the blind is elegant silver. If desired, the Tiivi Black window can also be equipped with an EasyLock locking mechanism and hidden hinges, so the end result is perfect in terms of appearance and usability.

The fixed Tiivi Maisemaikkuna can also be manufactured in an all-black version. The window contains a triple thermal glass element with a selective glass and black element spacers. An all-black external door and balcony door are available to go with the black windows.

- Available with quadruple glazing
- Wood-aluminium structure
- Thermal transmittance coefficient (U-value) 1.0
- Noise reduction (dB R\_+C\_+) 39–48
- Total solar heat gain (G<sub>w</sub>-value) 37–25





# The best way to ensure reception

Energy-efficient new construction increases the signal attenuation of buildings, which is manifested in poor indoor call reception and unreliable internet connections. At the same time, the use of mobile data and the need for a strong signal are constantly increasing. The solution to the problem is the **Tiivi Connect Antenna Glass**, which enables indoor mobile phone reception and data transmission.

The Tiivi Connect Antenna Glass raises the indoor mobile network reliability to a whole new level. The Connect Antenna Glass transfers the mobile network in a beam form in all directions, ensuring full reception, so the user's location in the room is irrelevant.

The innovation, designed in cooperation with the leading antenna technology expert StealthCase Oy, ensures that calls and mobile data connections work indoors and will continue to do so, regardless of the operator. The Finnish Antenna Glass innovation is significant, as similar technology is not available anywhere else in the world.

The Tiivi Connect Antenna Glass was awarded the Innovative Solution award at the British Glass Focus Awards 2020.

# WHY OPT FOR THE CONNECT ANTENNA GLASS?

- The award-winning and patent-protected solution ensures good mobile phone reception and good connections in the 3G, 4G and 5G networks, regardless of the operator.
- The inconspicuous Connect Antenna Glass is durable and safe and needs no maintenance.
- Proven efficiency, developed in cooperation with top experts of the antenna technology.
- Ecological solution: does not require electricity and does not reduce the energy efficiency of the window.
- Does not restrict the use of other glass options or blinds.
- Available for the Tiivi windows and balcony doors.

Connections all good?

**Choose Tiivi Connect Antenna Glass** 







# **INTEGRATED BLIND**

An integrated blind is a uniquely stylish, convenient and **safe solution**. Lifting and turning the blind is done with a single controller, available with an automatic retraction mechanism for the blind strings.

Due to the retraction mechanism, the blind strings are always hidden inside the sash. Under no circumstances will the blind strings hang outside the window. This makes the blinds particularly safe, as children and pets cannot get entangled in the strings.

The integrated blind is available for the Tiivi Kristalli window. The blinds are already installed at the factory so they require no installation time when the windows are installed.





# PLEATED BLINDS

Pleated blinds can be made of translucent or blackout material. They are an excellent solution for sun protection, especially in large picture windows and balcony doors. Made-to-measure, pleated blinds are easy to adjust from both



the top and the bottom, providing good protection from view. Pleated blinds can be installed on Tiivi's fixed and opening windows, Kippi windows and single-leaf balcony doors.

# VENTILATION WINDOW AND MOSQUITO SASH

The Tiivi windows can be equipped with a ventilation window. All ventilation windows are equipped with a roller arm stay that locks the window in any position. The ventilation hatch with grating and mosquito screen instead is a popular choice for saunas and bathrooms, and can be safely left open even if you are not at home.

The modern mosquito sash is easy to remove for window cleaning. The mosquito sash keeps insects out during ventilation. It is recommended to store the mosquito sash for winter, so that birds do not get a chance to peck at possible insects on the screen. The alternative to the nylon mesh is a strong metal mesh, which can be safely kept on the window all year round.

The patio doors can also be fitted with a high-quality and practical mosquito screen. You can learn more about the product on page 43.



# **POLLEN SCREEN**

The Tiivi pollen screen filters out pollen and also keeps insects outside. The screen has been specially designed for people suffering from an **allergy to pollen**. The precision-made screen prevents pollen from entering the room and keeps the room air fresh.

A mosquito sash to be installed on the ventilation window can be equipped with a pollen screen made of polyester fabric. Pollen adheres to the special coating on the polyester fabric and stops there, but light and air still pass through the screen.

The pollen screen is easy to install on a window without tools. The pollen screen is attached to an aluminium frame, which is mounted on the window's outer cladding with handy fasteners. The pollen screen is suitable for year-round use, but it can be easily removed for winter.

The pollen screen is always made to measure to fit the ventilation window and according to the minimum/maximum ventilation window sizes.







The Tiivi pollen screen has been tested as a safe and reliable allergy product at the European Centre for Allergy Research Foundation (ECARF).

# POLLEN SCREEN FILTRATION EFFICIENCY

- Birch pollen up to 99 %
- Grass pollen up to 99 %
- Mugwort and ragweed pollen up to 90 %

### WHY OPT FOR THE POLLEN SCREEN?

- Keeps pollen and insects out
- Proven performance and safe
- Filters up to 99 % of birch and grass pollen
- Easy to remove and attach
- Convenient to clean by vacuuming or washing



# Fresher indoor air by replacing windows and doors

The advanced KLIK is a **new innovative fresh air valve** for the Tiivi windows. The valve highlights design and technical performance. The high air volumes of the valve add comfort to living, bringing plenty of fresh air into the home.

20

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

The KLIK valve automatically adjusts the inlet air preheating 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 fresh air valve for maximum coolness and comfort.

# WHY OPT FOR KLIK?

- No costly ventilation renovations
- No separate valves on walls
- Stylish and practical design
- Plenty of fresh air
- Automatic temperature adjustment of inlet air
- Excellent noise insulation
- Effortless to use
- Easy-to-replace filters
- Possibility to close tightly if necessary
- Pre-installed to windows at the factory

The KLIK fresh air valve is available in two different versions, allowing use in buildings with both mechanical and gravitational ventilation.

The KLIK inlet air valve is a fresh air valve for buildings with mechanical ventilation and is only available for the opening Tiivi windows.

The KLIK S direct valve, for one, is suitable for buildings with gravitational ventilation and is available for the opening windows, fixed windows and balcony doors of Tiivi.



KLIK S direct valve for buildings with gravitational ventilation.



KLIK inlet air valve for buildings with mechanical ventilation.



# Windows matching your needs

When planning a window replacement, it is advisable to choose not only high-quality windows, but also windows with features that increase comfort and safety. By choosing windows that meet your needs, you will make your home both functional and comfortable.

The energy-efficient Tiivi windows reduce the heating costs of your home and increase the comfort of living with good noise insulation. Our windows, equipped as standard with selective-coated thermal glass elements, meet the requirements of the best energy rating A, and the end result is always energy-efficient.

If the energy efficiency of a building is to be raised to a particularly good level, 1 + 3 glazing can be chosen, which means that the window has one flat pane and one triple insulating glass unit.

There are individual needs in different homes and rooms that can be met with additional window glazing options. The diverse glass options of Tiivi meet the needs of even the most demanding renovators.

Tiivi offers a wide range of options for window glazing, ranging from decorative glass for protection from view to the noise insulation glass for improving sound insulation in noisy areas or to the Antenna Glass ensuring functional mobile connections.

# Available glazing



### **ENERGY GLASS**

The energy efficiency of the home can be further improved with the glass options. Heat loss is minimised and there is no feeling of draught near the window, also improving living



### **SUNSCREEN GLASS**

Sunscreen glass panes are recommended for the rooms in your home that are exposed to sunshine most of the day. Sunscreen glass panes prevent heat gain and glare.



### SAFETY GLASS

Durable safety glass improves the safety of your home. Safety glass must be used on windows where the height of the glass surface from the floor is less than 70 cm.



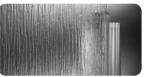
### PRIVACY GLASS

Privacy glass in windows facing the street, for example, pro-



vides stylish protection from view, but still lets the sun in.





# SATIN GLASS



### **FLEMISH**



### STIPPOLYTE

**NOISE-INSULATING GLASS** 

Noise-insulating glass panes effectively reduce any noise

nuisance around your home. For example, in areas suffering

from vehicle or aircraft noise, you can use noise-insulating glass panes to help keep the noise out.

**ANTI-FOG GLASS** 

Anti-fog glass prevents the outer surface of the windows

from fogging up and improves your living comfort. We recommend anti-fog glass for all low-energy windows.

**ANTENNA GLASS** 

Tiivi Connect Antenna Glass is the solution to reception

problems. The Antenna Glass enables efficient mobile

phone connections and data transmission indoors. The Antenna Glass does not restrict the use of other glass

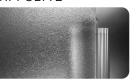
options or blinds.

PRIVACY GLASS STYLES

All the Tiivi windows, external doors fitted with a glass

opening and external door extensions can be fitted with

decorative privacy glass instead of clear glass.





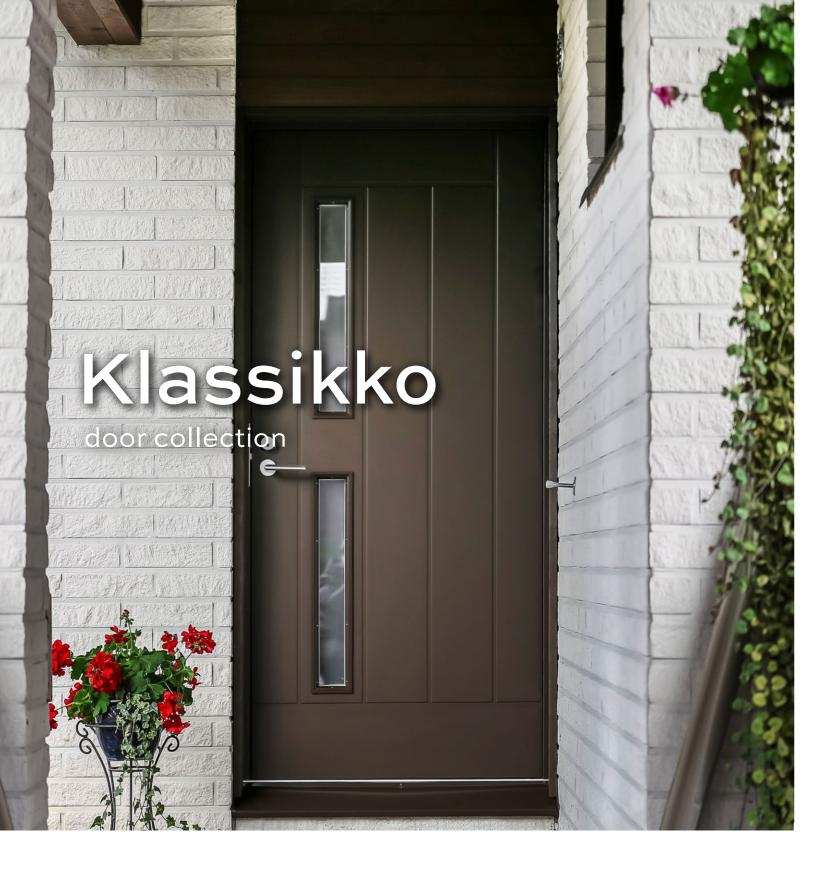


# The best door in the world

Our extensive and completely revamped range of external doors includes, the urban **City** collection and the modern stylish **Loft** collection, in addition to the traditional **Classic** collection. Our range also includes several different balcony, storehouse and fire doors as well as the noise-insulating dB-structured external doors.

Every home deserves an impressive door. Therefore, the Tiivi external doors value both quality and appearance, and all external doors in our door collections are always made to measure according to your wishes. In addition, the external doors are highly customisable in terms of colour and accessories.

Outstanding heat insulation, weather-resistant surface materials and a strong construction make the Tiivi door a reliable choice for an external door. A tight external door brings energy savings and improves living comfort. We grant our external doors a component warranty of 5 years and a straightness warranty of 15 years, which are the longest warranties on the market.

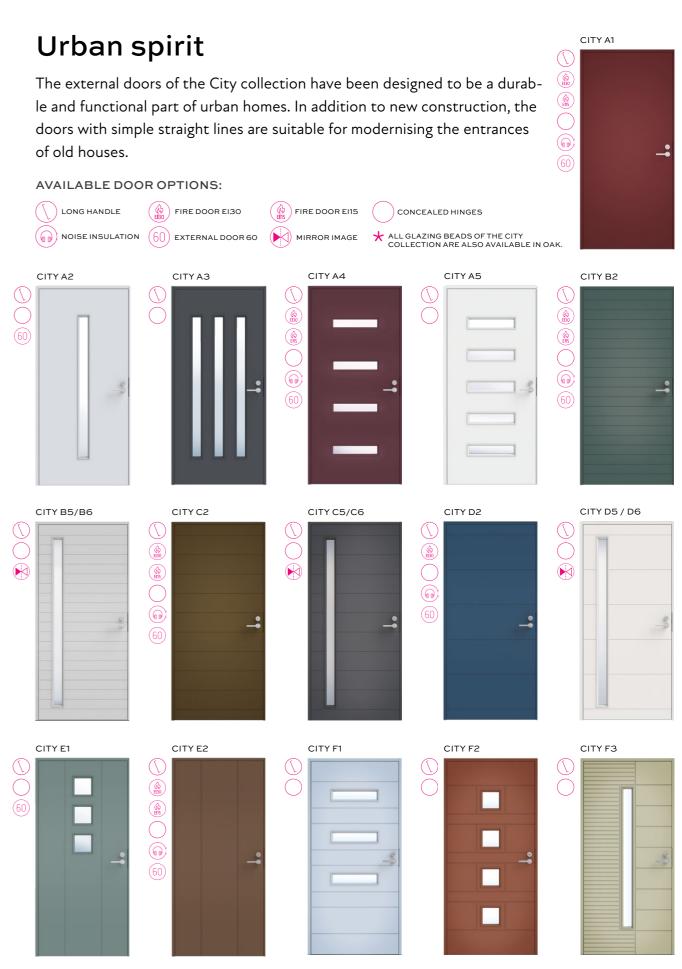


# Respecting traditions

The external doors of the **Klassikko** collection have been designed especially for renovations of detached- and terraced houses. The traditional-style doors can be easily fitted into the façade, matching the original style. The Klassikko collection also offers stylish doors for new houses of the traditional style.





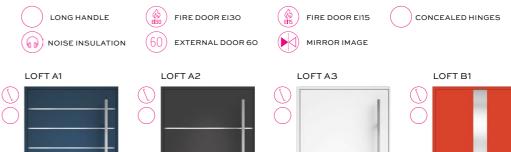


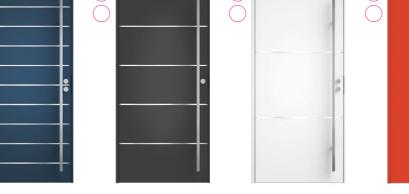


# Style for a modern home

The external doors of the Loft collection have been designed to turn heads. The majestic door finishing comprises embedded decorative trims and nailfree aluminium glazing beads. The Loft collection is ideal for new construction and for door renovations in, for example, functionalist houses.

# AVAILABLE DOOR OPTIONS:

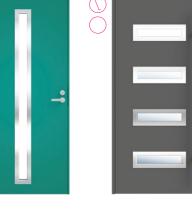






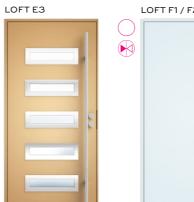




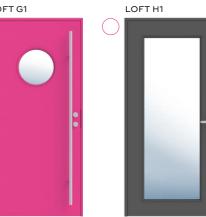


LOFT H3

LOFT B2











# External door matching your needs



# **EXTERNAL DOORS WITH A DB STRUCTURE**



The Tiivi external doors are available with effective noise insulation. The noise-insulating doors achieve noise insulation of over 37 dB (road traffic noise), even in noisy areas. The dB door structure does not change the look of the door – you can choose the one that suit your needs from a wide range of door designs.

# LIGHTER STOREHOUSE DOORS (60)



Many of the Tiivi external doors without an opening are available with a lighter structure, to be used, for example, as a storehouse door, back door or at a summer cottage. The door, which is 60 mm thick, has double silicone sealing and the possibility to choose from different frame depths. The range of lighter external doors also includes models with a glass opening.

# FIRE-RESISTANT **EXTERNAL DOORS**





All the Tiivi external door collection's doors without an opening and several doors with a glass opening can be manufactured as fire doors. A CE-marked fire door of fire class EI15 or EI30 gives more time to escape the fire and prevents its spread. A fire-classified door is often required in a building if there are buildings located close to each other or if, for example, a carport and the entrance of the house are close to each other.

# EXTERNAL DOOR ACCESSORIES

The external door accessories help in meeting even the most demanding needs. The Tiivi external doors can be fitted with concealed hinges, a kick plate, doorbell, peephole, door chain, letterbox, door check as well as with mechanical locking, smart locking or an electronic peephole, depending on the model. You can read more about door accessories on page 42.

# Extensions

# **External door extensions**

A wide range of extensions is available for the Tiivi external doors to add **practicality** and **flair**. You can choose either a fixed extension supplied with its own frame or an opening extension supplied in the same frame as the main door. An opening extension allows the door opening to be temporarily enlarged for moving larger items such as a bed or sofa. You can combine the exterior door model of your choice with the matching extension model.





# Finnish craftmanship

Tiivi's new wooden panel doors combine the traditions of timber construction, ecological structure and **stylish design**. The wooden panel doors **handmade to measure by a carpenter** are created in cooperation with our sister brand Sydänpuu. A pine door panelled on both sides can have next to it a matching fixed window with aluminium cladding or a wooden surface to be stained with the same shade as the door.

### **NEW ECOLOGICAL STRUCTURE**

Tiivi's ECO wooden door is a beautiful and environmentally friendly option for the entrance to your home. Thanks to its new structure, the solid, fully wooden door is now even more ecological and energy-efficient with improved sound insulation. The ECO wooden external door is equipped with a highly durable aluminium-enforced massive oak threshold.

- Ecological wood fibre insulation
- Aluminium-enforced massive oak threshold

New!

- Thermal transmittance coefficient (U-value):
   Doors without openings 0,75.
   Doors with glass openings 0,83 0,9.
- Noise reduction C<sub>tr</sub> 32 dB

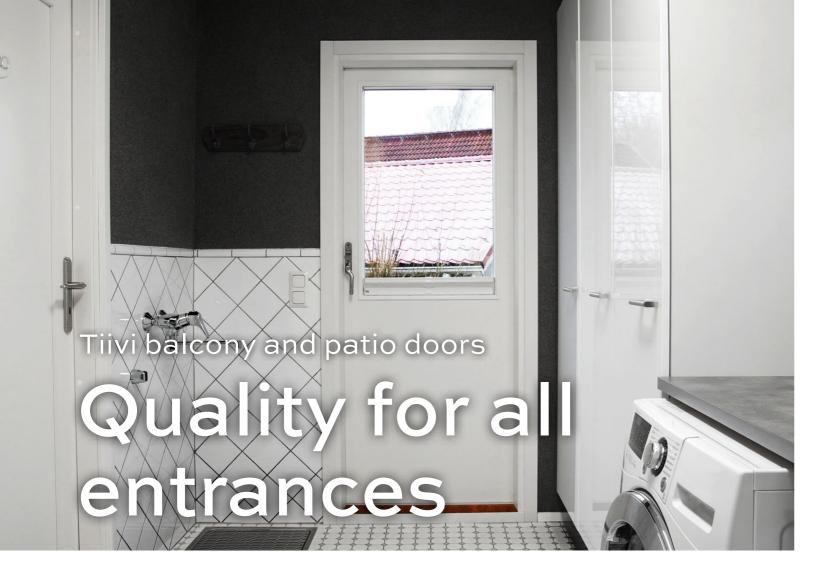




# SELECT YOUR COLOUR

The wooden panel doors are stained with the Tiivi stains to beautifully highlight the surface and character of the wood. The stain options are pine, oak, walnut, teak, black and white. After staining, the doors are varnished twice with highly durable varnish. Alternatively, the doors can be painted using the Tiivi external door colours.





Balcony and patio doors to match all styles. You can choose the size of the glass opening on the door according to the **style and needs** of **your home**. Large doors with glass openings make your favourite places and the best views part of your home interior. Tiivi's high-quality and durable balcony and patio doors are ideal for the Finnish weather conditions. In summer, ventilation is easy and, in winter, the tight door keeps out the freezing cold.

### TIIVITERASSI

A patio door with the construction of an external door. The Tiivi patio model is recommended for use as a patio door to covered outdoor areas. Available fully glazed and with glass openings of different heights and with horizontal patterns. The door is also available as an EI15 and EI30 fire door with the M12 and M14 glass openings. Concealed hinges are available as accessories for the patio door.

- Thermal transmittance coefficient (U-value) 1.0–0.86
- Noise reduction (dB  $R_w + C_{tr}$ ) 23





### TIIVI KRISTALLI WINDOW DOOR

The high-quality Kristalli window door opens inwards and is well suited, for example, as the door to a French or small balcony. The two-leaved door has an oak step and concealed hinges that complete the stylish exterior and improve usability. The door can be selected with full glazing, a horizontal division or solid bottom.

The Kristalli window door is now also available as a double door, enabling a large passageway without a vertical glazing bar between the doors.

- Thermal transmittance coefficient (U-value) 1.0-0.78
- Noise reduction (dB  $R_{LL} + C_{+r}$ ) 37–45
- Total solar heat gain (G-value) 41–29





# TIIVITERASSI ALU

Outward-opening balcony door with a glass opening. The aluminium cladding on the outside makes the door durable and easy to maintain, even in tough weather conditions. In addition to the fully glazed model, the size of the opening is customisable.

- Thermal transmittance coefficient (U-value) 1.0–0.79
- Noise reduction
   (dB R\_\_+C\_+) 29-39



# TIIVITERASSI ALU KUULTO

Outward-opening door with a glass opening. The stained balcony door brings out the beautiful texture of the wood. There is weatherproof aluminium cladding on the outside but the inside surface shows the wood.

- Thermal transmittance coefficient (U-value) 1.0–0.79
- Noise reduction  $(dB R_w + C_{tr}) 29-39$



### TIIVI KIPPIOVI

Inward-opening balcony door.
The door is suitable as the door to a French balcony. The door also features a tilting function for ventilation and is available with integrated glass railing on the outside. The door can also be implemented as double doors to maximise the amount of light coming in.

- Thermal transmittance coefficient (U-value) 1.0–0.67
- Noise reduction  $(dB R_w + C_{tr}) 23$

# Window and door colours

You can choose the colour you want for the Tiivi windows and external doors to create the look that is just right for your home. In addition to the standard colours of the Tiivi windows and external doors, you can make use of the RAL colour chart with numerous colour options. The Tiivi products are delivered with finishing.

# STANDARD EXTERNAL DOOR COLOURS

The Tiivi external doors are available on the inside and outside in the colour of your choice. The colour of the Tiivi doors remains bright and clean for a very long time thanks to the advanced two-component painting technology.



# STANDARD WINDOW COLOURS

The Tiivi windows are delivered with finishing. The woodwork of the windows is painted, stained or varnished. Aluminium parts are powder-painted. The colour options for the window woodwork are semi-matt white and varnished pine. Other shades are available on request.



# **STAINING**

The Tiivi Kuulto stains are oak, teak, walnut, black and white. In addition to the stains, pine can be finished with clear varnish. Tiivi Kuulto brings out the character of wood and makes the window an element of interior design with several colour options. A stained inner sash holds up better than the usual painted window, for example, in saunas and bathrooms where there are great variations in air humidity.





# **ALUMINIUM SURFACES**

The standard colours for the aluminium components of windows and balcony doors are white RAL 9010, dark brown RR32, dark grey RAL 7024 and black RAL 9005. Other shades are available on request. The colours of the RAL and Teknos colour charts offer plenty of choice. Powder-coated aluminium is great at withstanding the stresses of weather. Aluminium does not rust, so a scratch on the surface does not lead to damage to the structure.



### PLEASE NOTE!

Always check the final colour from the manufacturer's colour chart; due to print technology, there may be colour differences in the brochure.

41



# KOTIVALO ILLUMINATES YOUR HOME'S ENTRANCE

Illuminating entrances with Tiivi's rechargeable Kotivalo is easy and convenient. Lighting improves safety and comfort and can also be used to highlight the entrance door or its surroundings. The LED light features an adjustable output and illumination and an adjustable motion sensor for operation in low light conditions.

The battery-powered Tiivi Kotivalo is also ideal for places where it is difficult to install electrical lighting. Mounting the light is extremely easy: the light is magnetically attached to the brackets supplied with the product.

# HANDLES

The Tiivi external doors can be fitted with a handle that matches the style of the home and door. We already install the handle on the external door at our factory. In addition, some models can be fitted with the long handle, measuring 1,800 mm, which is paired with the Stockholm handle on the inside.



VITÓRIA, F1, SILVER



DALLAS RAL 9005, BLACK



STOCKHOLM RAL 9005, BLACK



DALLAS, F1, SILVER





LONG HANDLE 1,800 MM AND DOOR KNOB



HOUSTON F41-R, SATIN CHROME

STOCKHOLM

F1 SII VFR



STAINLESS STEEL

# ADVANCED CONCEALED HINGES

Concealed hinges are a unique accessory in Tiivi's external doors. The hinges, embedded in the door structure, support the door in just the right places and keep it securely in place. The hinges are extremely durable and have good adjustment possibilities.

The hinge is not visible on the outside, as the entire mechanism is hidden inside the door. In addition to being an elegant option, the hidden hinges protect against burglars, making your home safer.

# LOCKING

Abloy locking is available for the Tiivi doors. For example, we offer the new Abloy Easy key systems and systems that can be rekeyed to accommodate the customer's existing key. Tiivi's doors are compatible with almost all electric locking options on the Finnish market, including Abloy and Rollock.

The Yale Linus smart lock, which improves safety, is also available for the Tiivi doors. It allows the door to be unlocked and locked with a smartphone, mechanical key or code. The Yale Linus colour options are black and silver.

Another smart locking option is Yale Doorman, which replaces the conventional locking and handle. A smart lock is used with a code or tag, so you no longer need a traditional key.

# **THRESHOLD**

An oak or birch threshold can be selected for the Tiivi door according to the door style. The external door threshold is also available as an accessible option, i.e. lower than usual. In the case of fire doors, wooden panel doors and dB doors, the threshold is always oak.

# EXTERNAL DOOR MOSQUITO SCREEN

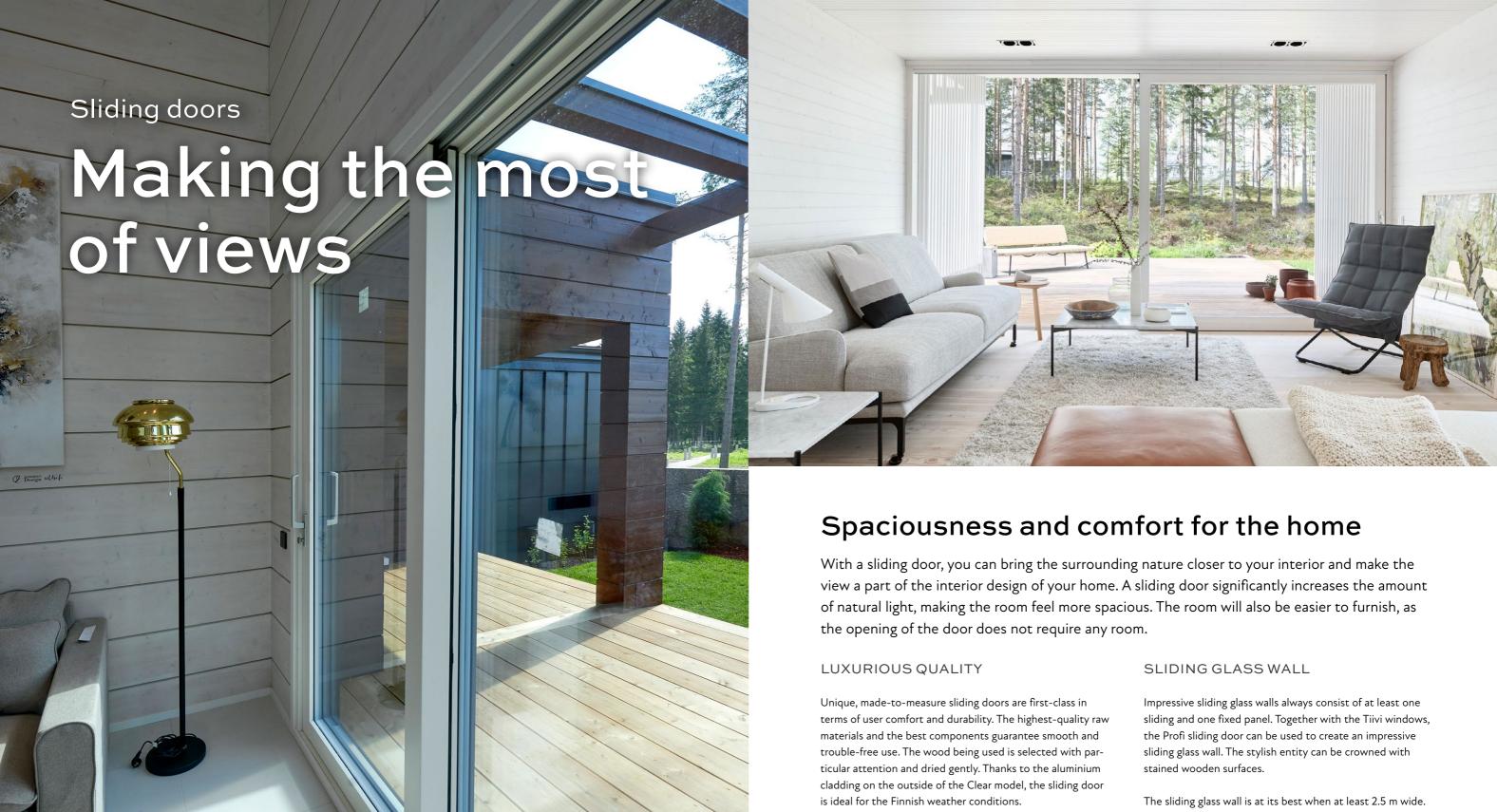
The Tiivi door screen, available for patio and balcony doors, keeps out mosquitoes and other insects when you want to open the door for ventilation. The high-quality door screen is made to measure using durable materials.

The door screen rolls up to the side and is easy and light to use. It is also safe, as the door screen is automatically retracted inside the housing upon impact. The screen rolls up inside the aluminium housing and stays well protected and invisible when not used for ventilation.









44

The sliding glass wall is at its best when at least 2.5 m wide. This allows for a large enough sliding door opening. The minimum width is 1,790 mm, and a sliding glass wall can be up to 10 m wide.

The sliding glass walls meet the current strict environmental and energy-efficiency requirements. In terms of their tightness and thermal properties, they correspond to the traditional external doors.



Several structural innovations, for example in glazing, tightness and the step, make the Tiivi sliding door range

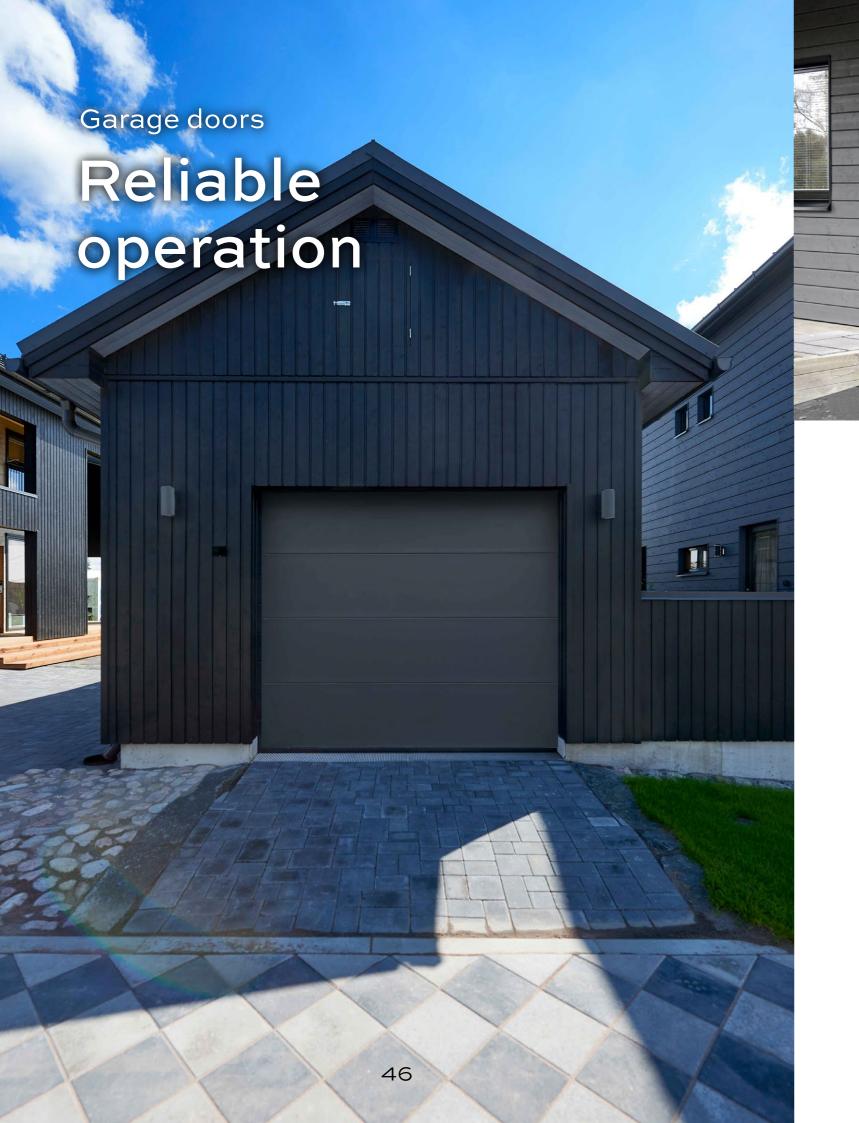
energy-efficient. The Finnish Profi sliding doors in the Tiivi sliding door range are the tightest fitting sliding doors on the

market. The Profi sliding doors are also available with, for ex-

ample, sunscreen glass, which reduces heat gain in the home

on hot summer days. The standard equipment of the sliding

doors always includes safety glass.



The Tiivi garage doors are extremely **durable and reliable**. This is guaranteed by high-quality materials and diversely tested structural solutions. Colours and texture make it possible to achieve a unique look that fits into your home's facade. All the doors have a beautiful shade of white on the inside. Choose from our selection a garage door that fits the style of your home.



MODEL RF No groove pattern

Surface: wood pattern or smooth White RAL 9016 Dark grey 7016



MODEL RS Spaced-out groove pattern

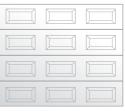
Surface: wood pattern or smooth White RAL 9016 Dark grey 7016



MODEL RC
Dense groove pattern

Surface: wood pattern or smooth White RAL 9016 Dark grey 7016

Dark brown 8014



MODEL RA Panel pattern

Surface: wood pattern White RAL 9016 Dark grey 7016 Dark brown 8014

# SAFETY IN EVERYDAY LIFE

The safety devices of the garage doors ensure safe door operation for all your family members. The door sections prevent fingers from getting stuck in between them and the overload protection returns the door back up if it touches an obstacle while closing.

# COMFORT OF USE EVERY DAY

The garage door rises straight up, so you can park your car right in front of the door. A sectional overhead door with automatic opening allows you to drive directly into the garage without getting out of the vehicle. A manually operated sectional overhead door is also fairly effortless due to its anti-friction mechanisms. You can also choose a wicket door for your garage door, which allows easy access into and out of the garage without having to lift the door.

# Technical specifications of the Tiivi products

More technical product information for the Tiivi windows and doors can be found on our website at www.tiivi.fi.



### TIIVI KRISTALLI 1+2

- Opening wood-aluminium window
- Outer sash has flat glass, inner sash has double insulating glass
- Thermal transmittance coefficient (U-value) 1.0-0.78
- Noise reduction (dB R<sub>...</sub>+C<sub>+</sub>) 38–49
- Total solar heat gain (G\_-value) 54-27
- Sizes: Width 300-3,500 mm x Height 385-3,500 mm. Maximum surface of frame 6 m<sup>2</sup>, maximum surface of sash 4 m<sup>2</sup>
- Frame depth: 130 mm, 170 mm, 210 mm



### TIIVI KRISTALLI 2+2

- Opening wood-aluminium window
- Outer sash has flat glass, inner sash has double insulating glass
- Thermal transmittance coefficient (U-value) 1.0–0.59
- Noise reduction (dB R\_\_+C\_\_) 39-47
- Total solar heat gain (G<sub>w</sub>-value) 36–22
- Sizes: Width 300-3,500 mm x Height 300-3,500 mm. Maximum surface of frame 6 m<sup>2</sup>, maximum surface of sash 4 m<sup>2</sup>
- Frame depth: 130 mm, 170 mm, 210 mm



### TIIVI MAISEMA WINDOW

- Solid wood-aluminium window
- Triple-glazed insulating glass unit
- Thermal transmittance coefficient (U-value) 1.0–0.68
- Noise reduction (dB R<sub>w</sub>+C<sub>+r</sub>) 26–41
- Total solar heat gain (G<sub>w</sub>-value) 49–15
- Sizes: Width 190-4,500 mm x Height 190-4,500 mm Maximum surface of frame 10 m<sup>2</sup>
- Frame depth: 130 mm, 170 mm, 210 mm









### **EXTERNAL DOOR**

Doors without openings

- Thermal transmittance coefficient (U-value) 0.71
- Noise reduction (dB R, +C, ) 22

Doors with glass openings

- Thermal transmittance coefficient (U-value) 0.88-1 (depending on the model)
- Noise reduction (dB R<sub>w</sub>+C<sub>+r</sub>) 24

Width min. 690 mm x max. 1,090 mm (depending on the model) Height min. 1,790 mm x max. 2,390 mm

Double door maximum size 1,990 mm x 2,390 mm

• Frame depth: 125 mm, 165 mm, 205 mm

# TIIVI EXTERNAL DOOR 60

Doors without openings

- Thermal transmittance coefficient (U-value) 0.85
- Noise reduction (dB R\_+C\_+) 22

Doors with glass openings

- Thermal transmittance coefficient (U-value) max. 1.0 (depending on the model)
- Noise reduction (dB R, +C, ) 24
- Sizes:

Width min. 590 mm x max. 990 mm

Height min. 1,790 mm x max. 2,390 mm

Tiivi Miniovi door min. 590 x 790 mm (City A1 only)

• Frame depth: 115 mm, 125 mm, 165 mm

# TIIVITERASSI ALU DOOR

- Thermal transmittance coefficient (U-value) 1–0.79
- Noise reduction (dB R<sub>w</sub>+C<sub>+r</sub>) 27–39
- Sizes:

Width min. 690 mm x max. 1,090 mm

Height min. 1,790 mm x max. 2,390 mm

Double door maximum size 1,990 mm x 2,390 mm

• Frame depth: 130 mm, 170 mm, 210 mm





# Our top professionals are at your service

Tiivi has been replacing the windows and doors of Finnish homes for over 40 years. Our experts have extensive experience in window and door replacements. So you can trust that you will always have the best experts at your disposal. You can book a free-of-charge assessment meeting at **www.tiivi.fi** or call us. Our customer service is available free of charge at **0800 184 484** on weekdays from 8 am to 4 pm. Our chat service is available until 8 pm.

### FREE MAPPING AND PLANNING

Careful design, the right product solutions and dimensioning are the prerequisites for successful renovation. Our experienced window and door specialists will help you choose the right products, accessories and glazing. In addition, they will ensure the quality, cleanliness and smoothness of the installation process through careful planning.

When planning a window replacement, it is important to take into account the needs of the home, as well as the requirements set by the building and the environment. Immediately after a thorough free-of-charge survey of your window and door replacement needs, our expert will inform you of the best solution for your home and what it will cost. The survey does not commit you to purchasing the products.

### YOU CAN COUNT ON US

Our financial standing is solid. It guarantees our long warranty periods, after-sales services and the availability of supplies. If anything were to happen, our national after-sales service will help you quickly and flexibly.

# THE BEST WINDOWS AND DOORS WITH THE MOST COMPREHENSIVE WARRANTIES

We rely on the quality of our products and installation. Therefore, we grant our products an exceptionally long technical construction warranty of 5 years and a warranty of 10 years for paint surfaces. Our external doors have a straightness guarantee of 15 years.

# FINAL INSPECTION AND WARRANTY

Following window and door replacement work, a final inspection will be carried out together with the customer. This is done to make sure that the end result corresponds to what was agreed.

An inspection report will be prepared based on the final inspection. At the same time, we will also provide guidance for use. The most comprehensive after-sales service network and spare part service in Finland is a key part of Tiivi's quality chain.

Our common goal is for the windows and doors to last as long as possible and to function as planned throughout their service life.



Quality-certified installation with industry-leading warranties

Tiivi is the only operator in Finland providing quality-certified (ISO 9001) installation services with a 10-year warranty. Each of our installers has been trained to observe strict occupational safety and high-quality workmanship and cleanliness at every work phase. Take advantage of our extended experience and professional skill to ensure that your new windows and doors will work for decades.

### THE BEST PROFESSIONALS IN THE FIELD

The success of a window replacement project is ensured by careful and professional installation. The best outcome is guaranteed by our industry-leading installers, who have completed the demanding Tiivi installation training. Our installation process is always based on taking accurate measurements, which is the responsibility of an experienced Tiivi salesperson.

On the installation day, access routes and areas in front of windows will be protected with floor coverings. Our installers will remove the old window, install the new one, put the finishing touches to it and carefully clean up after themselves.

Before leaving, our installers will also instruct you on the use of the products and inform you of the recommended maintenance measures. Upon completion of the installation work, your home will be tidy and in good order. In the case of detached houses, our aim is to complete installation work within 1–3 working days.

Recycling and environmental issues are an important part of our whole operating process, and we offer our customers the possibility to recycle old doors and windows through us. Recycling of demolition waste takes place effortlessly and tidily when booked through our installers.



# Tiivi Kristalli – the key to easy renovation

With the Tiivi Kristalli additional service, you will get to experience the most carefree window and door replacement of your life. In addition to the normal procedures, such as protecting the floors, we will also take care of moving heavy furniture, the protection of objects and more thorough cleaning, including cleaning the windows.

### HELP IN RENOVATION PREPARATIONS

When our installers take care of the basic preparations, the installation work preparations are completed efficiently, requiring minimum effort on your part. Our installers will help you move and protect furniture and objects that are in the way of installing windows and doors.

- The furniture and objects will be carefully moved aside to a sufficient distance.
- The installers will protect from dust any furniture in the immediate vicinity of a window and door to be replaced.

The resident will only be responsible for moving valuables, such as paintings and other decorative objects, to a safe place before the start of the installation work.

# HELP WITH CLEANING

The removal of old windows and doors and installing new ones will cause some debris and dust.



- At the end of the installation work, we will vacuum the area in the vicinity of the windows and doors.
- We will perform the first cleaning of the new windows and doors: we will clean the glass panes and wipe down the frames and sashes.
- We will move the items of furniture back to their places.
- We will take the old windows and doors away for recycling.

Get to know our references

# Good customer

experiences

A detached house completed in Kaarina in 1994 underwent a renovation with new Tiivi windows and terrace doors with various functions.

The window and door renovation improved the energy efficiency of the house and changed the overall look to be more modern and fresher. Beautiful and practical Kristalli windows brought extra comfort to everyday life in the bedrooms.

Light grey was chosen as the shade of the window frames, giving a nice look without being too dominant in terms of interior design. On the outside, the windows have grey outer frames and black flashings.

The large fixed landscape windows in the living room have an area of almost 5 m2 each. The scenery remains clear thanks to the anti-fog glazing. The terrace doors leading to the backyard terrace were renewed and, unlike before, they are all-glass.

The impractical terrace door next to the fireplace in the living room was replaced with a 2.5-metre-high fixed window that rises directly from the floor level.

The biggest surprise for the residents was how effortlessly and quickly the whole window and door renovation process happened. "When we considered window replacement, we assumed the process would be much more difficult. So, I think this went very smoothly," says the resident.

# Renovation site: Old traditional farmhouse

The old residential building of a dairy farm got new style-appropriate, but modern and energy-efficient windows.

The beautiful red wooden house in Juankoski got a fresh new look when the old brown-framed windows were replaced with new white Tiivi windows. The traditional casings on the outside were done respecting the old style, and the brown flashings were replaced with white ones.

A total of 31 windows were installed in the house, most of which are equally spaced windows with vertical glazing bars. A particularly wonderful change took place in the entrance porch, which has wide windows in three directions. The porch is even brighter after replacing the old brown windows. The old solid front door was removed, and the Klassikko A2 model, which conforms to the traditional style, was chosen as the new door, and the glass openings allow even more light to enter the porch.

The dark sauna also got a new window with a black stained treatment. Mosquito sashes were selected as accessories for the ventilation windows, and integrated blinds were installed in some of the windows.





# Renovation site: recreational dwelling in Kuopio

After the previous expansion, the round log house, which serves as a second home, underwent another major renovation with the replacement of windows and doors.

Window replacement was decided on because the windows in the extension did not meet the residents' wishes and they wanted better quality. "We wanted nature to come in through the windows," says the lady of the house. A bigger change was made to the kitchen, when three side-by-side opening windows were replaced with a Profin sliding glass wall and one Maisema window.

The inside of the windows is tinted in oak-stain, so the cabin atmosphere was preserved even after the renovation. The brown frames on the outside were replaced with white ones. The opening Kristalli windows were implemented with hidden hinges, so the end result is neat and stylish. The main door and terrace door were replaced with doors from the City collection, and they have a stain tone similar to the windows on the inside.

The satisfied residents especially praise Tiivi's salesperson for the success of the renovation. "Maybe that is why we dared to start the renovation as the service was so spectacular," they say.





