

# NORD SK PROF L

HANDLING AND INSTALLATION MANUAL

WOODFAC PANEL
ALUFAC PANEL

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## **PRODUCTS**

## WOODFAC PANEL AND ALUFAC PANEL

Woodfac Panel and Alufac Panel are patented Danish facade systems, produced in Denmark. We ensure the highest quality with full control over our entire value chain, from raw material sourcing to delivery to the customer.

The facade systems are closed and function as effective climate shields.

The design is customizable, and lamellae are mounted vertically with the desired center-to-center spacing. Only creativity sets the limits for creating unique architectural facades.

#### **USAGE**

Outdoor facade systems from Nordisk Profil are suitable for all types of:

- New builds
- Renovations
- Screening
- Car parks
- Ceilings in e.g. entrance areas
- Partial, full or combined facade cladding

Nordisk Profil exclusively utilises Greenline aluminium, which is made from 100% collected and recycled aluminium.

The wooden lamellae are impregnated with a non-toxic and Cradle to Cradle-certified fire retardant.

ALUFAC PANEL CONSISTS OF ALUMINIUM LAMELLAE ON AN ALUMINIUM STRUCTURE.

WOODFAC PANEL CONSISTS OF WOODEN LAMELLAE ON AN ALUMINIUM STRUCTURE.

## **PRODUCT BENEFITS**

Nordisk Profil offers high-quality facade systems with full fire safety documentation and particularly good EPD values.

Here are some highlights of the facade product benefits:

#### **DESIGN FREEDOM**

Architectural design freedom is the hallmark of our products. There are no standard dimensions or design requirements that need to be met. The facade systems are like playing with LEGO - both in terms of assembly and design. All facade solutions are tailored precisely to the requirements and desires of the customer.

Therefore, you determine the design, and we help with the best solution! Check out various project references on our website under 'projects'.

## **MODULAR FACADE SYSTEMS**

With a strong focus on environmentally friendly products, all systems are modular with easy expansion and adaptation to future needs.

The flexibility of the products makes it easy to handle repairs and transform them for new needs and desires. Additionally, all products can be easily disassembled and removed for recycling and reuse.

#### **OPTIONAL LAMELLAE**

We only use lamellae made from FSC® or PEFC™ certified wood species. As a starting point, we recommend lamellae in the following types of wood:

- Thermo ash
- Thermo pine
- Western Red Cedar
- Thermo ayous
- Accoya

If there is a desire to install pre-patinated lamellae, this is also possible.

## **OPTIONAL COLOUR AND SURFACE**

Our aluminium lamellae can be coloured in all RAL and NCS colours, as well as in a wide range of colours with varying gloss levels. We offer powder coating and anodizing, allowing you to choose precisely the appearance desired without compromising the lamellae's durable properties.

#### **COMPLETE SOLUTION**

Nordisk Profil supplies all facade components that are compatible with our systems. We offer a wide range of accessory profiles, ensuring that all terminations and framings are part of a complete solution from Nordisk Profil. This is backed by a guarantee of a sharp, precise appearance when installation is carried out correctly. We provide professional advice and support regarding solutions, design, and fire safety requirements – key factors for the successful completion of any facade project.

#### INSTALLATION IN ALL DIRECTIONS

Lamellae can be installed vertically or horizontally - or a combination of both. Even as a curved facade or ceiling. A facade with curved elements gives a beautiful and organic look.

#### **MAINTENANCE**

Typically, our facade system does not need maintenance. "Wood as facade cladding" and "Aluminium as facade cladding". Documents are available here: www.nordisk-profil.dk/downloads

## **FIRE SAFETY**

Nordisk Profil never compromises when it comes to fire safety – quite the opposite. We lead the way in providing guaranteed fire-safe facade solutions that have been thoroughly tested and fully documented.

Nordisk Profil's Woodfac facade system complies with the fire safety requirements according to EN 14915. Woodfac is the only product on the market that has been tested and certified to meet the classification B-s1,d0 / B-s2,d0.

We provide end-use classification reports for the specified wood types, with the exception of Accoya. Please contact us for more information regarding these tests, fire retardants, and fire safety information.

## **FORM STABILITY**

The wooden lamellae have been thermo treated, which ensures form stability and a unique lifespan.

## **PROFESSIONAL COOPERATION**

We provide professional advice and support regarding solutions, design, material selection, and fire safety requirements, which are crucial for successfully completing the facade project.

From design to installed facade, we follow the construction project and are always on the sidelines with advice and guidance. We also offer planning services and ensure that the architect's wishes are fulfilled, with 100% control over material specifications.

Nordisk Profil is a reliable and professional partner who optimises desires and needs for a facade to benefit you as a customer.

## INSTALLATION BENEFITS AND WEIGHT CHART

Nordisk Profil offers high-quality facade systems with full fire safety documentation and particularly good EPD values.

#### Here are some highlights of the facade installation benefits:

#### **SYSTEM**

The facade solutions consist of three components and are installed in three steps. It is also easy to finish around door and window openings.

## **INSTALLATION OF HAT PROFILE**

The panel system is installed on HAT profiles, which are mounted onto the load-bearing facade.

#### **PANEL**

The facade system's panels are easily attached to the HAT profiles and secured at all joints with the corresponding mounting screw.

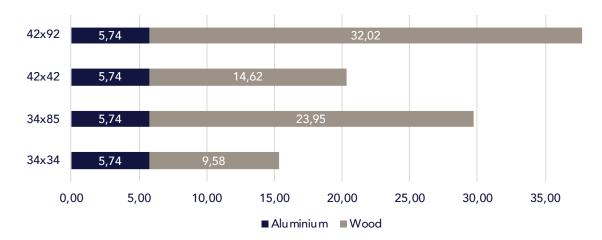
## WEIGHT CHART IN KG PER M<sup>2</sup>

Our facade solutions can be designed with optional lamellae dimensions and center-to-center (cc) distances, with the weight per m² varying accordingly.

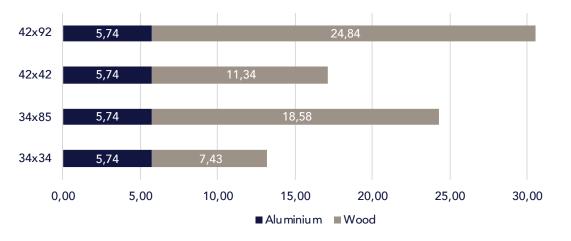
Refer to the weight chart for each wood species, with a cc distance of 70 mm and varying lamellae lengths.

\*We recommend adding a 25% weight safety margin.

#### **THERMO ASH**

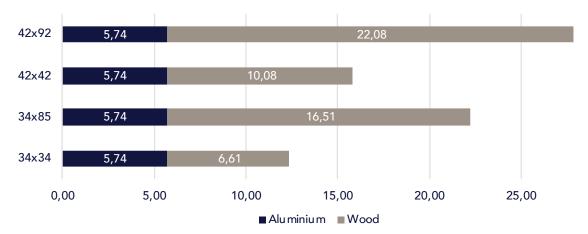


#### **THERMO PINE**

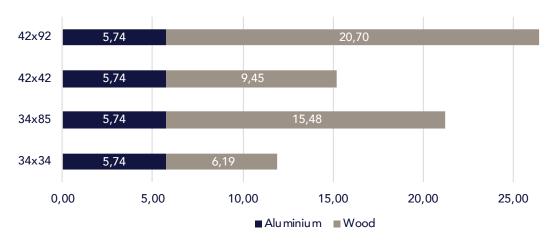


## **WEIGHT CHART CONTINUED**

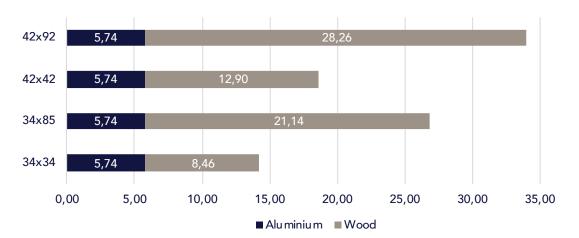
## **WESTERN RED CEDAR**



## **THERMO AYOUS**



## **ACCOYA**

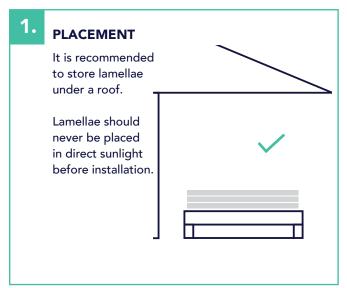


## **PRODUCTS**

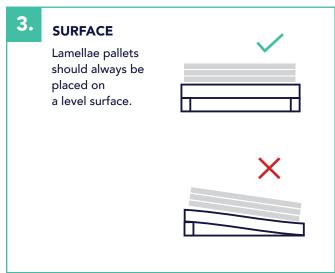
## DO'S & DON'TS

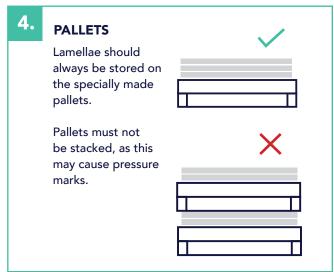
It is important to read the following requirements for correct handling and storage, as the product warranty depends on the handling and storage from receipt of the goods.

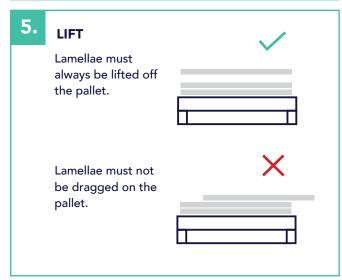
Please contact Nordisk Profil if there are any doubts or questions regarding this.

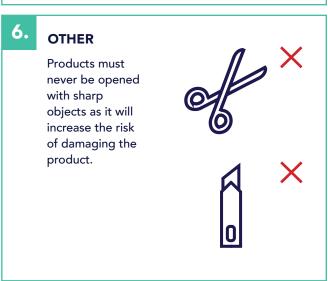












## PREPARATION BEFORE INSTALLATION

1. OVERVIEW

Check that the ordered materials have been delivered. Get an overview of which lamellae are to be installed where, so that all pallets are placed in the "correct" locations.

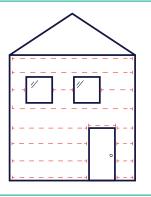
Before installation, it is important to inspect the facade. Ensure that it is possible to begin installation in relation to other ongoing work. It is also important to remember that the lamellae must be installed in one direction – from left to right. 2. MEASUREMENT

Once you have an overview of the materials and the facade, you can begin measuring, which is crucial for correct installation.

3. IDENTIFY

Identify the key areas that need to be installed between and around, such as windows, doors, corners, and other geometric structures that interrupt the facade.

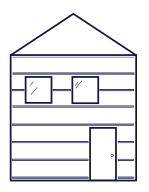
Pay attention to the placement of the HAT profiles, ensuring they are installed according to the pre-punched holes in the panels.



4. PRIORITISE

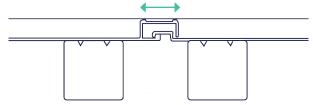
If panels are to be installed in multiple sections stacked vertically, it is important to begin with the section that is most interrupted by elements such as windows and doors.

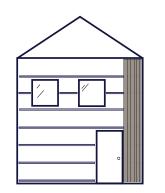
Be mindful to align each floor section consistently for a uniform appearance.



5. OPTIMISE

If there are areas between two window frames or a corner where the chosen center-to-center spacing cannot be matched, this can be resolved by adjusting each individual panel connection/joint.





INSTALLATION

## **INSTALLATION STEPS**

The installation of the panel systems should be carried out in three phases. Read more about each phase on the following pages.



start installation from stage 2.

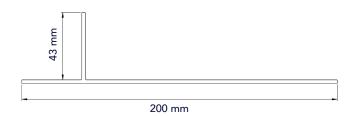
2. INSTALLATION OF HAT PROFILE

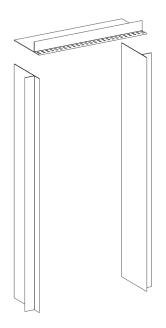


# INSTALLATION OF UNIVERSAL REBATE PROFILE

Panel installation around door and window openings is handled using our universal rebate profile.

This 2-in-1 profile functions as both a side and top rebate, with the latter featuring pre-punched holes.





STEP 1: MEASURING AND CUTTING

Rebate profiles (side and top) are measured and cut to the desired lengths.

Side rebates are mounted and pushed into place against the top rebate.

2. STEP 2: INSTALL TOP REBATE

The top rebate is mounted and runs from edge to edge.

4. STEP 4: CORNER SEAL

At the joints between the top and side rebates, a corner seal is installed to ensure a windand waterproof closure at the external sealing layer.

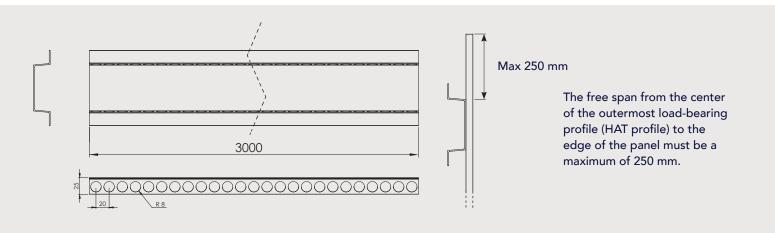
INSTALLATION 9

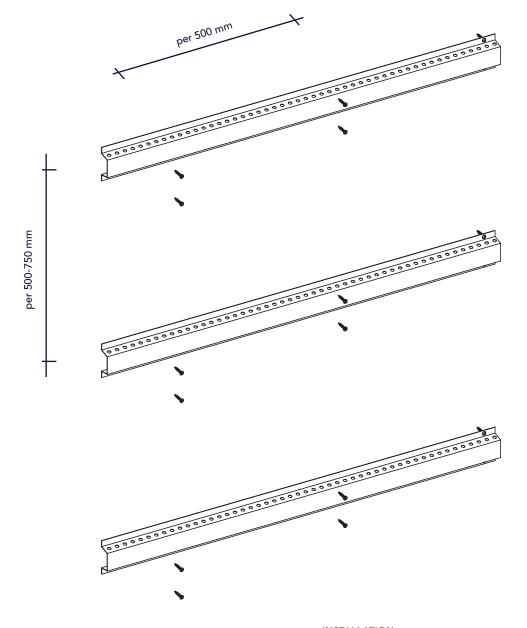
## **INSTALLATION OF HAT PROFILE**

## **MOUNT**

The panel system is installed on HAT profiles, which are mounted onto the load-bearing facade. It is recommended to install a HAT profile every 500-750 mm, depending on the substrate.

The panels have pre-punched holes every 125 mm, allowing the HAT profiles to be positioned at intervals compatible with the 125 mm spacing.





INSTALLATION 1

## INSTALLATION OF FACADE SYSTEM

#### UNIQUE AND SIMPLE PLUG AND PLAY SYSTEM

The modular facade systems consist of three components and are installed in three steps. It is simple and quick, providing a detailed result without visible screws in the lamellae.

Here is an overview of the system components and the three installation phases. On the following pages, you will find specific instructions for installing the panel system as well as information about accessories.

#### THE SYSTEM'S THREE COMPONENTS

- ALUMINIUM PANEL: Panels in Greenline aluminium with pre-punched mounting holes.
- 2. LAMELLA: Lamellae in varying lengths and CC distances.
- 3. MOUNTING SCREW: Installation with mounting screw.

The facade system has been developed to allow for thermal movement while maintaining full control over all components of the structure.

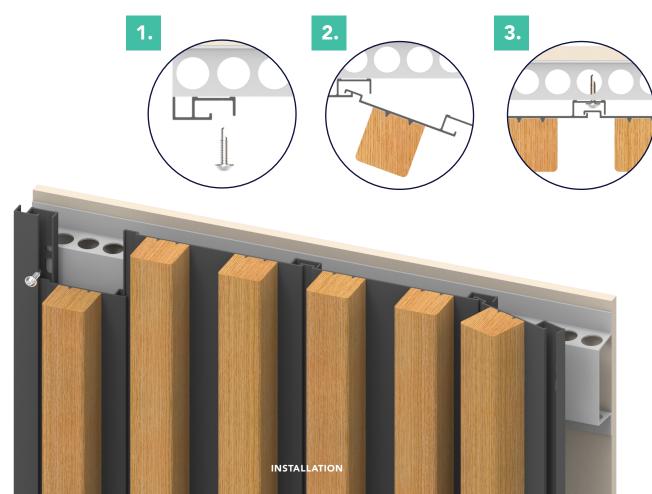
#### THE SYSTEM'S THREE STEPS

- **1. MOUNT:** Installation of Woodfac Panel and Alufac Panel begins by securing a starter profile onto a ventilated HAT profile or another substrate with equivalent ventilation.
- 2. CLICK: The panel is angled into the previous joint and is generally pulled to the right for maximum coverage width.

  Then the panel is tilted in one smooth motion towards the mounting profile a 'click' sound indicates it is in
- **3. FIX:** Once the panel is installed, it is fastened with a stainless steel mounting screw. Be sure to align the thermal zero point consistently on all panels, mounting rails, and lamellae.

#### **DOORS AND WINDOWS**

When the façade system is to be installed around window and door openings, it is important to begin the installation by setting up rebate profiles. Read more about this on page 9.



## **STEP 1 - PANEL INSTALLATION**

## **MOUNT**

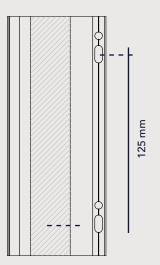
After installing the HAT profile, the panel installation can begin.

From left to right, the starter profile is mounted and fastened with screws through the pre-punched holes. Read more about the starter profile on page 16.

The screws are concealed when the first panel is installed.

Remember to always install left to right.





The thermal zero point must be placed consistently on all panels.

Every 125 mm, the panel has a pre-punched elongated hole and a round hole.

The elongated holes allow for thermal movement, while the round hole ensures the thermal zero point.

The zero point should be positioned consistently on all panels—preferably in the middle of the panel's height.



## **STEP 2 - PANEL INSTALLATION**

## **CLICK**

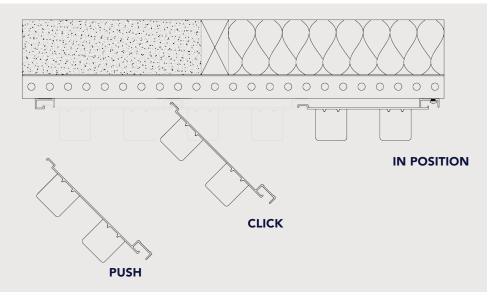
Now the panel needs to be clicked into place. This is done by angling the panel into the previous joint.

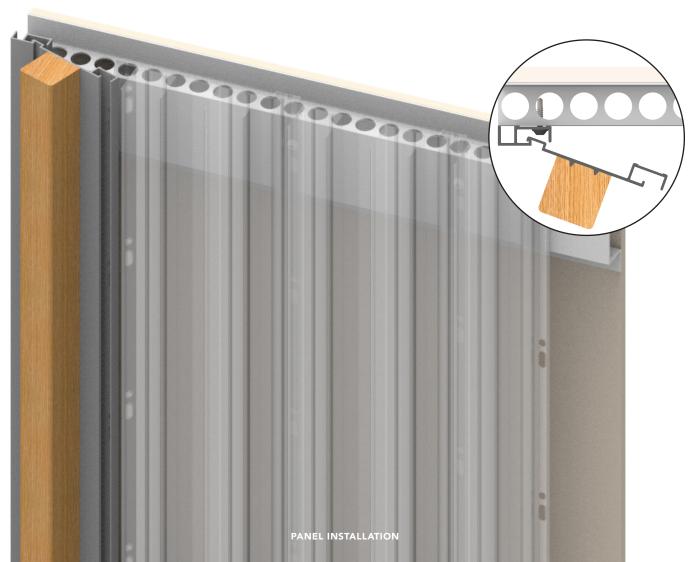
In one smooth motion, the panel is tilted toward the HAT profile and clicked into position.

The panel is pulled to the right for maximum coverage width.

Remember to check that the panel is properly clicked into place before fastening with the mounting screw, which is the next step.

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## **STEP 3 - PANEL INSTALLATION**

## **FIX**

In the final installation step, panels must be adjusted and fastened individually, and sections need to be finished.

See the next page for more details on coverage width, adjustment, fastening, and finishing.

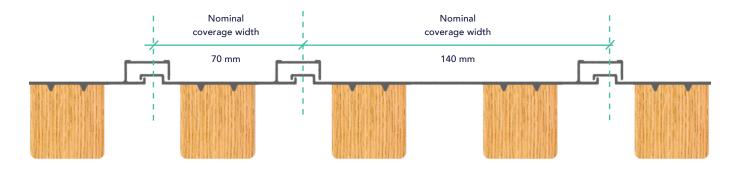


## **STEP 3 - CONTINUED**

## **COVERAGE WIDTHS**

Pay attention to the desired center-to-center (cc) spacing and the panels' coverage width to ensure a consistent appearance.

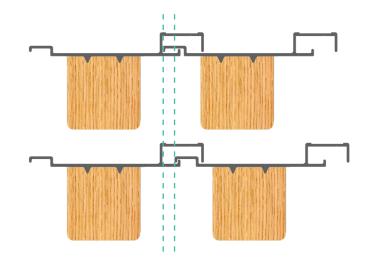
The panels' coverage width usually corresponds to the lamellae cc spacing. Thus, a system solution with a cc spacing of 70 mm will have a nominal coverage width of 70 mm for a single panel and 140 m m for a double panel.



## **ADJUSTMENTS**

Once the center-to-center spacing is set, it is possible to adjust the panels by up to 5.5 mm per joint.

This adjustment is done for each panel.

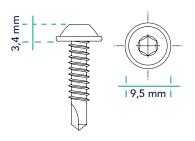


## **FASTENING**

When the panel is installed, it is secured with a stainless steel mounting screw.

The screw head must be a maximum of 9.5 mm in diameter and 3.4 mm in height.

Screws are not included with the delivery but can be purchased from Nordisk Profil.



## **FINISHING**

After all panels are installed, the section is finished with an end profile. See the dimensions of the end profiles on the next page.

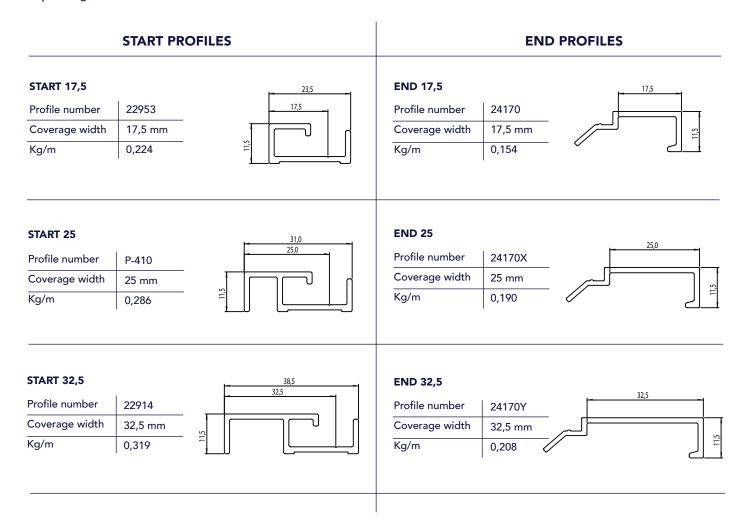
Before installing the end profile, the top, middle, and bottom are fixed with a metal adhesive.

Once the metal adhesive is applied, the end profile is mounted in the panel groove.

## START AND END PROFILES

## **VARIABLE ADJUSTMENTS**

For the facade systems, starter and end profiles are offered in three dimensions to accommodate possible tolerances – depending on the facade construction.





## **CORNERS AND TRANSITIONS**

## **CORNERS**

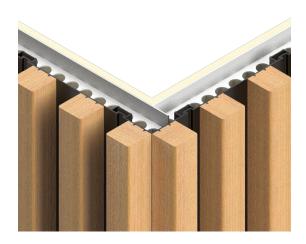
## **INTERNAL CORNER**

For each specific center-to-center (cc) spacing, a system-matched internal corner profile is available. This profile does not have lamellae.



## **EXTERNAL CORNER**

For each specific cc spacing, a system-matched corner profile with lamellae is available. The external corner features lamellae.



## **HORIZONTAL TRANSITIONS**

## **CONTINUOUS PANEL**

Aluminum panels can generally be delivered in the full height of the sections (up to 7.5 meters).



## **SPLIT PANEL**

Using the weather-resistant EPDM strip ensures a tight joint between the individual aluminum panels when they are divided.

Installation is done in step 1 – installation.



FITTINGS 17

## THE SYSTEM'S 'ZIPPER'

## **EASY SEPARATION**

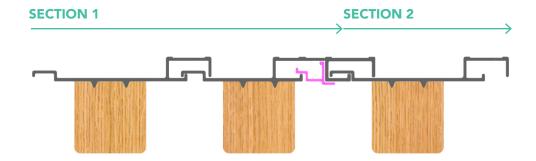
For large facade areas, it is possible to divide the facade sections so they can be separated quickly and easily.

## **INSTALLATION**

When dividing the facade, the customized single profile is inserted.

When section 2 begins with a starter profile, the zipper connection is then installed between section 1 and section 2.

This process continues for the following sections.





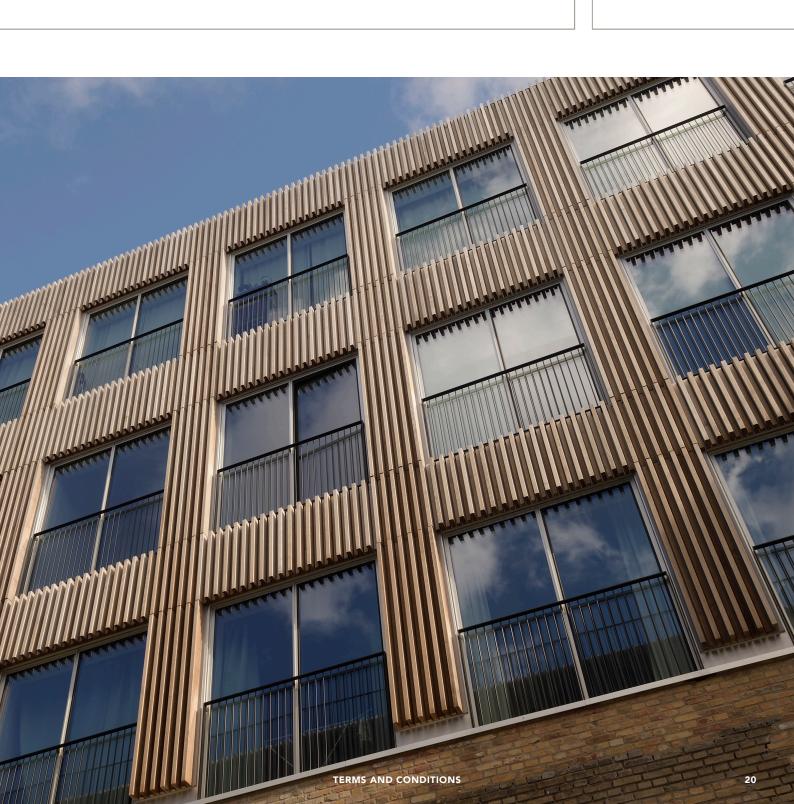
## **TERMS AND CONDITIONS**

## **GUARANTEE**

Nordisk Profil provides a 5-year product warranty on all facade systems.

However, the warranty is conditional upon correct handling and installation in accordance with our instructions in this handling and installation guide.

Reference is also made to our current terms of sale and delivery.



Nordisk Profil is a specialist in facade solutions and a supplier of patented Danish facade systems that enhance architectural freedom and set new standards for building facades.



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