

CAR PARKSFACADE SOLUTIONS

EN





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ELEGANT FACADE SOLUTIONS FOR CAR PARKS

FACADE SOLUTIONS WITH BESPOKE DESIGN

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

With 30 years of experience, we take pride in creating tailored and unique facades that break the urban landscape and meet today's requirements for sustainable, environmentally friendly, and, not least, fire-safe construction.

Facade solutions for car parks are delivered with full documentation regarding fire safety (End Use Classification Test), sustainability (EPD, VOC), and durability (EN 16755).

We specialise in facade solutions for parking houses and offer a flexible concept that allows adapting the facade solution to the parking house, not the other way around. This means that all preferences for a facade can be fulfilled and executed with a facade system from Nordisk Profil.

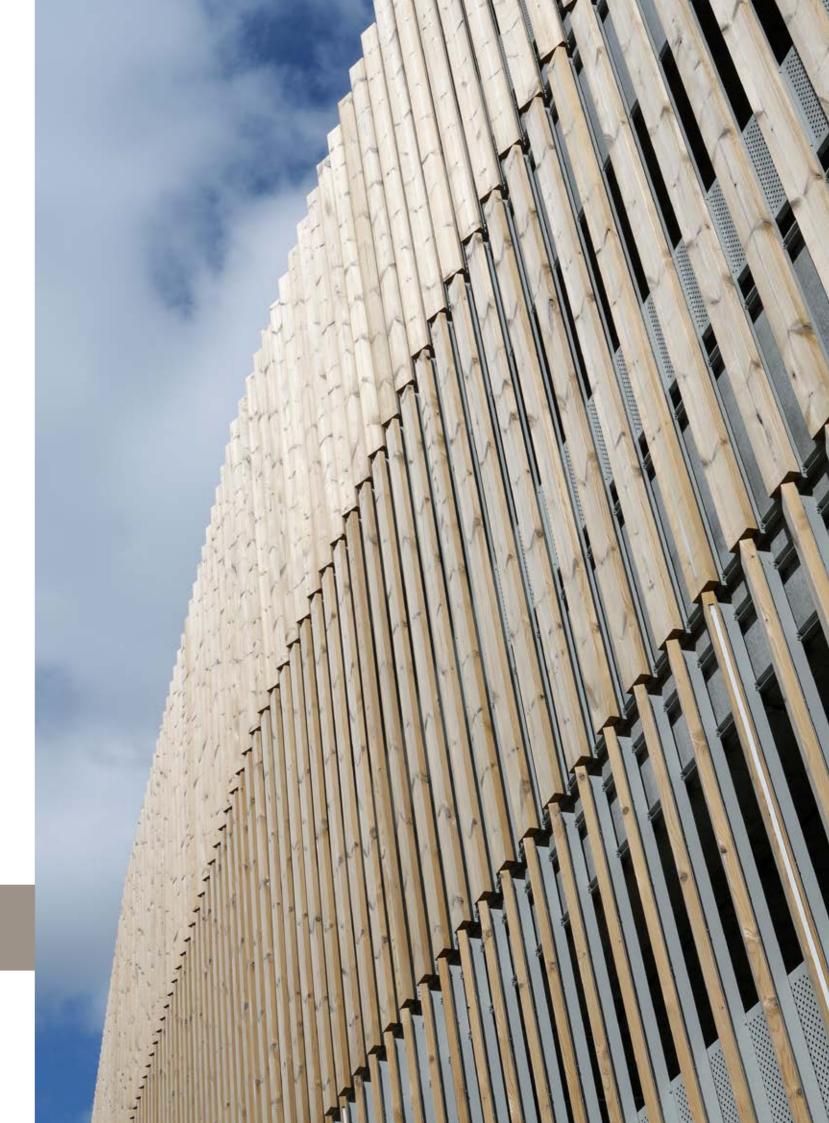
Facade solutions can be implemented with both wooden and aluminium lamellae, or as a combination facade with, for example, perforated panels, solar cells, green walls, etc.

There are no limitations to combinations, and regardless of the design choice, the solution is tailored to the specific project.

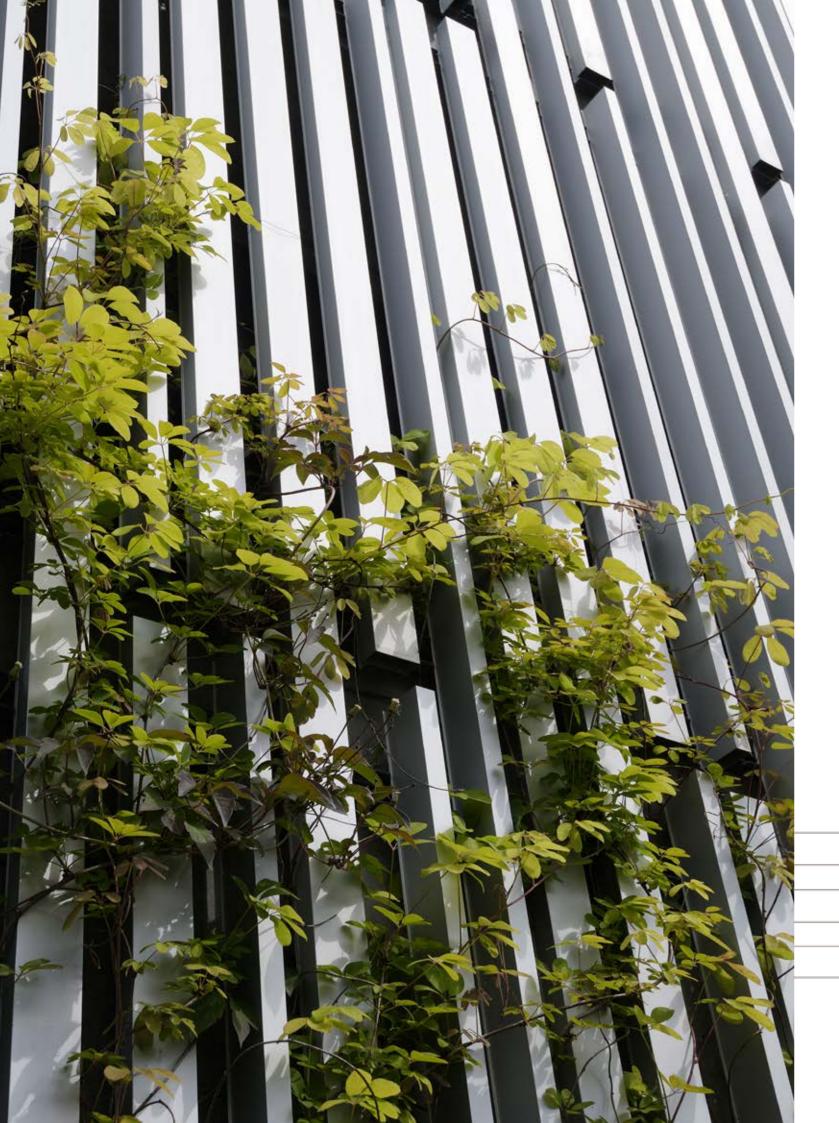
OUR MOTTO IS SIMPLE

Freedom to choose

Let your imagination be your guide to create something extraordinary







SET NEW STANDARDS FOR CAR PARKS

THE FUTURE FACADE CHOICE

Nordisk Profil offers facade systems that have the ability to transform practical parking houses into beautiful architectural structures that enrich the urban landscape, and the environment around it.

With tailored solutions, new standards for aesthetics and functionality are set, making it possible to unite form and function and create impressive architectural expressions.

OUR PURPOSE

The fundamental idea behind Nordisk Profils facades is clean, simple, and modular systems of exclusive quality that contribute to sustainable, environmentally friendly, and firesafe construction.

All facade systems are unique, tailored solutions with 'freedom to choose.'

A facade from Nordisk Profil is optimal for the construction of new parking structures, or as a solution for renovating existing ones. They are all future-proof and can be extended without visible transitions.

Fire End Use classification tested and approved according to European standards

100% collected and recycled aluminium

Maintenance-free

Modular and optional design

No visible screws or transitions

Built-in thermal movement

Quick and easy installation

FACADE SUPPLIER 10





FACADE SYSTEM WITH LAMELLAE IN WOOD OR ALUMINIUM

PATENTED DANISH FACADE SYSTEMS

Nordisk Profil offers two systems as facade solutions for parking structures: Woodfac Click and Napsu.

With a focus on delivering exclusive facade solutions, we prioritise the highest quality with full control over the entire value chain from raw material procurement to delivery to the customer.

The solutions provide an attractive view of the building's load-bearing facade, making it possible to create a vibrant architecture through light, shadows, materials, and design.

The design is optional, and with lamellae that can be mounted horizontally, vertically, and with the desired center-to-center distance, creativity is the only limitation for the creation of unique and architectural car parks.

WOODFAC CLICK

Woodfac Click is an open facade solution consisting of wooden lamellae on an aluminium structure.

With lamellae in optional wood types, a beautiful, natural, and inviting facade is achieved, elegantly adapting to its surroundings.

Woodfac Click has undergone fire safety system testing, is a safe, and is an advantageous choice for a unique and future-proof facade.

The lamellae fire impregnation consists of 100% natural substances, is 100% biodegradable, as well as non-toxic and VOC emission-free.





NAPSU

Napsu is an 'open' facade solution consisting of aluminium lamellae on an aluminium structure.

A facade with aluminium lamellae in an optional colour and gloss, appears sharp and creates a striking construction, capturing attention with its refined finish and level of detail.

Napsu is the 'right' choice if there are requirements for the building's facade to use non-combustible class A materials, while also achieving the best EPD values.

Nordisk Profil exclusively uses Greenline Aluminium, which is 100% collected and recycled.

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COMBINE FACADE MATERIALS

DESIGN AND COMBINE AS YOU WISH

At Nordisk Profil, we don't just offer 'clean' lamellae solutions, but we offer the oppertunity to play, design, and combine with a variety of materials.

Woodfac Click and Napsu can be combined with partial solutions, for example, perforated plates, stretched metal, trapeziodal plates, profile places, solar panels, green walls etc.

We don't deliver standard solutions
We deliver your solutions

COMPLETE SUPPLIER AND SPECIALIST

Nordisk Profil is the supplier of Woodfac and Napsu and delivers all components.

We are also your specialist and advisors in regards to solution, design, installation and fire-techinal requirements, etc.

We offer no standard solutions, but strive to work closely with our clients in order to ensure that you get the full potential out of your project with the ideal solution – both now and in the future.

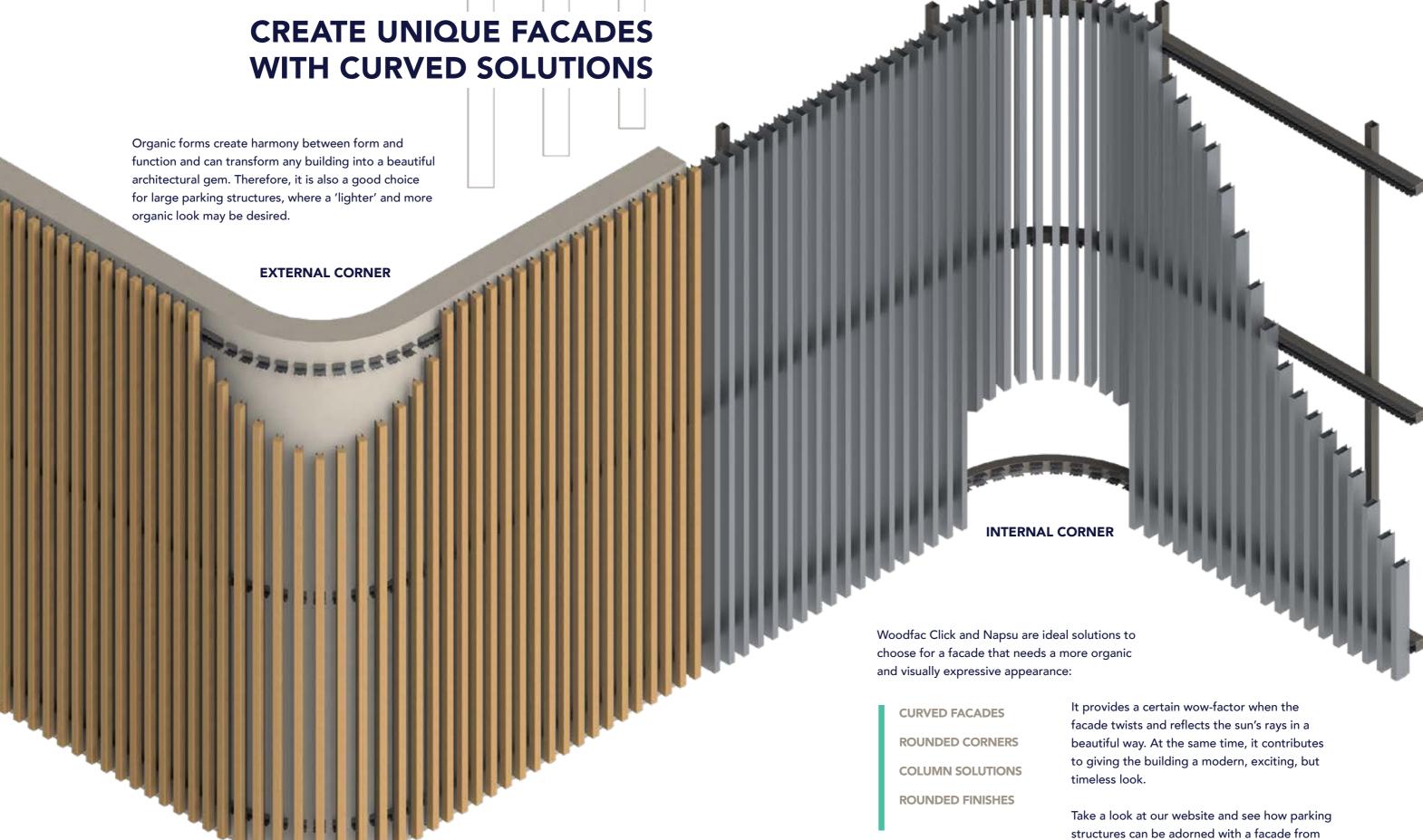




FACADE SOLUTIONS







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Nordisk Profil.



OPTIONAL WOOD LAMELLAE

WHAT IS YOUR DESIRED LOOK?

The natural beauty and unique grain of wood create an aesthetically warm and inviting look, naturally integrating the building with its surroundings.

Wood is a versatile material that can be adapted to various architectural styles depending on the choice of wood.

Nordisk Profil recommends five wood species based on longevity, dimensional stability, and fire resistance:

THERMO ASH

THERMO PINE

WESTERN RED CEDAR

THERMO AYOUS

ACCOYA

See table about the different wood types.

Nordisk Profil has fire technical documentation on different wood species that have all been end-use classification tested and passed in regards to EN 14915.

Contact us if you want to fire test other wood species installed with our facade solutions.

GREEN QUALITY

Nordisk Profil does not compromise on materials or quality, and continuously strives to make a positive environmental impact by selecting documented components that ensure the best conditions for the climate and environment.

This ensures that, regardless of your choice of wood for the facade, you receive FSC[®] or PEFC[™] certified wood with traceability and legality throughout the entire value chain.

Additionally, only the most sustainable fire retardant is used for wood impregnation. You can read more about this on page 57.

Average Shape **Duration** Minimum life **System** density stability expectancy** fire-class class* **EN 335** (end-use) THERMO ASH 617 50 High B-s1,d0 kg/m³ years **THERMO PINE** 432 30 Very 2 B-s2,d0 kg/m high years THERMO PINE PREMIUM 432 30 Very B-s2,d0 2 kg/m high years **WESTERN RED CEDAR** 465 30 Very B-s2,d0 2 kg/m³ high years **THERMO AYOUS** 30 323 Very B-s2,d0 2 kg/m³ high years ACCOYA*** +50 525 Very D-s2,d2 kg/m³ high years

- * Durability classes for wood are graded from 1-5. Durability class 1 is the highest, with class 5 being the lowest.
- ** Minimum expected lifetimes for vertically mounted lamellae, installed with Nordisk Profil's system solution.
- *** Accoya® is FSC® and Cradle to Cradle Gold certified, as well as holding a Nordic Swan Ecolabel. Accoya has a guaranteed durability for +50 years above ground and 25 years in soil/underwater. The Accoya wood is from sustainable sources, CO2 neutral, and 100% recyclable.

7 FACADE SOLUTIONS FACADE SOLUTIONS



OPTIONAL ALUMINIUM LAMELLAE

CREATE AN IMPRESSIVE FACADE WITHOUT LIMITATIONS

Facades should create a visual impact and impress. They should appear sharp and adapt to their surroundings. Therefore, it is important to choose a facade solution that offers opportunities rather than limitations – in terms of form, structure, colours, and materials.

ANODIZING

Anodizing, as a surface treatment, is highly suitable as it is the material itself that seals and forms the surface. In this process, the protective surface remains UV-resistant, as well as hard, corrosion-resistant, mechanically durable, and long-lasting with excellent weather resistance.

It is possible to choose different anodizing colours and design the lamellae in a glossy, matte, or brushed finish – exactly as desired.

Anodized lamellae retain their metallic and decorative appearance for decades and are maintenance-free.

POWDER COATING

Powder coating is a surface treatment process that provides aluminium surfaces with a range of positive properties while also giving them a decorative appearance.

The result is a strong, even, and durable layer that protects against corrosion, wear, weathering, and is UV-resistant.

If you want to create unique and creative facades, powder coating is an excellent choice. With a wide selection of colours, patterns, and finishes, the possibilities are many.

Here is a selection of the most commonly used finishes and colours. Aluminium lamellae can be supplied in all RAL colours.





29 FACADE CLADDING





INSTALLATION OF THE FACADE

UNIQUE AND SIMPLE PLUG AND PLAY SYSTEMS

Choosing a facade solution from Nordisk Profil should be cost-effective, both now and in the future.

Without compromising on a robust and durable end product, we ensure, with our unique plug and play system, easy installation that contributes to economical benefits and confidence in the construction project from the setup of the first lamellae to potential future expansion.

The modular facade systems consist of three components and are assembled in three steps. It's simple and fast, providing a detailed result without visible screws in the lamellae.

THE SYSTEMS THREE STEPS

1. MOUNT

The mounting profile is attached to the load-bearing facade with a maximum distance of 400 mm between fixing points.

2. CLICK

The lamella is pushed into the click groove, and the wide base is pushed into place. When the lamella foot is in the click groove, the lamella is tilted in one complete motion into place - 'Click'

3. FIX

When a lamella is clicked into place, fix-plates are mounted in all cross joints between the mounting profile and the lamella.

THE SYSTEMS THREE COMPONENTS

1. ALU MOUNTING RAIL

Aluminium mounting rail with punched holes.



2. LAMELLAE

Lamellae in optional lengths and variable ctc distances. and locked with fix-plates.

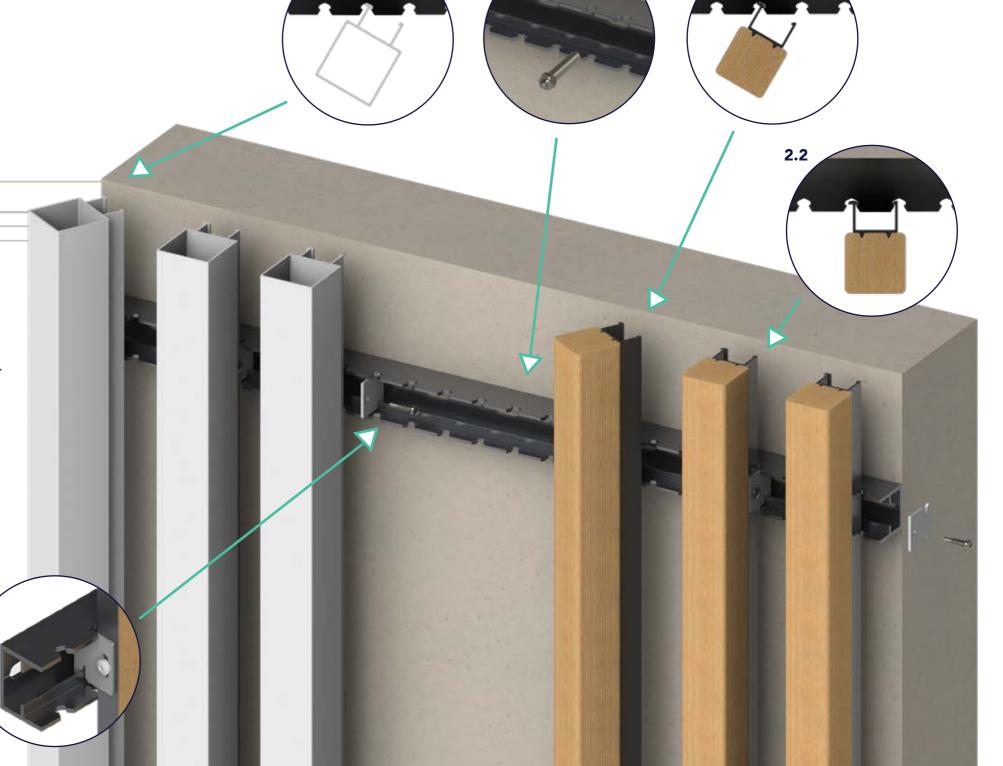
3. FIX-PLATE

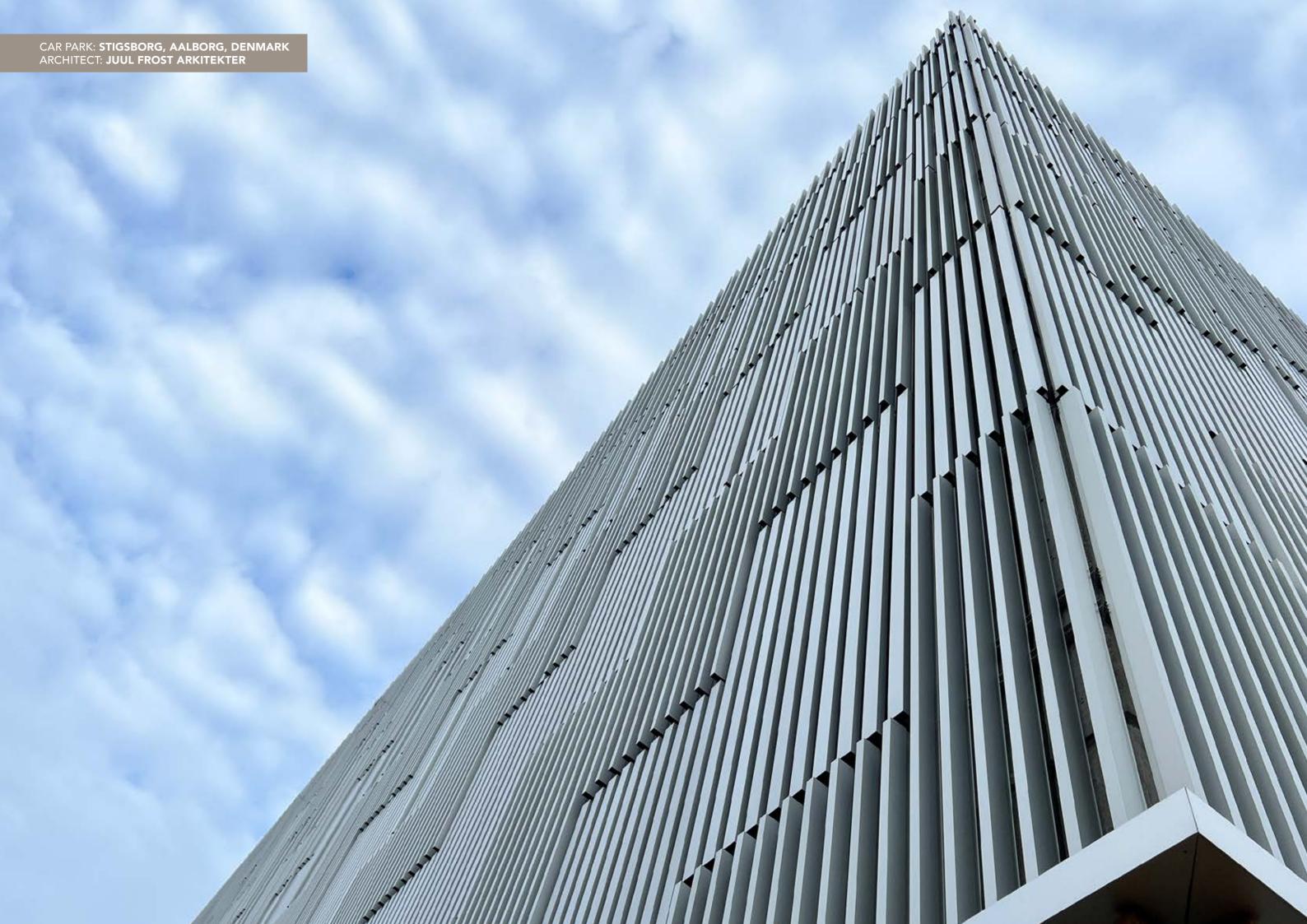
The system is mounted





The mounting rail, lamellae and fix-plates are prepared for thermal movement with full control over all components of the construction.









INTEGRA-pw

INNOVATIVE SAFETY BARRIERS FOR PARKING STRUCTURES

ACHIEVE OPTIMAL PROTECTION WITH JUST ONE SOLUTION

INTEGRA-pw is a patented and recognised safety barrier primarily designed for parking structures.

With just one solution, it is possible to set up a system that protects both people and prevents collisions between vehicles.

In practice, this means there is no need for conventional protection such as guardrails or similar structures.

Uniquely, INTEGRA-pw offers a free span between posts of up to 7806 mm, eliminating the need for additional protection. In the event of a collision, the system ensures that the resulting loads are transferred to the supporting structure.

To protect the parking structure's facade in case of car accidents, the optional 4-point attachment can be used to minimize the deformation of the INTEGRA-pw safety barrier.

With a load capacity of up to 3.5 tons, INTEGRApw is suitable for logistics centers and provides effective protection.

PROJECT-CUSTOMISED SYSTEM

INTEGRA-pw is the innovative and optimal choice, when safety and protection need to be top-notch.

With great design flexibility, the system is adapted and tailored to each individual parking garage. It is installed horizontally without drilling into the surface and is also suitable for sloped areas.

In many ways, it is the innovative and optimal choice when top-notch safety and protection are essential.

Two systems in one solution

Modular and tailored system

Simple installation

Adjustable joints

System height of 943 mm and 1143 mm

Individual elements up to a maximum of 5506 mm

Absorbs a load of 1.5 kN/m

Meets requirements according to EN 1991-1-7 and

FN1991-1-1

DIBt - general technical approval

WHY CHOOSE INTEGRA-pw?

The innovative safety system has several advantages of a technical, economic, and environmentally friendly nature.

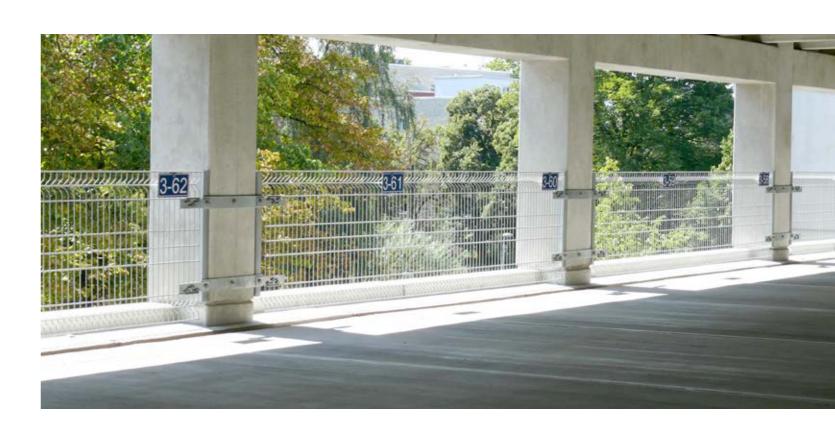
First and foremost, it complies with DIBt, which is a general technical approval with approval number Z-14.7-882. Additionally, it meets all European standards for impact loads according to EN 1991-1-7/EN 1991-1-1.

It is straightforward to install, and as a modular system, it is easy to expand and adjust, making it seamless to adapt to future needs. Similarly, (side) connections can be handled without additional ceiling fastening, and drilling into concrete ceilings is not necessary.

The system boasts a high level of security as it is not mounted with horizontal profiles. This means that the possibility of climbing or any other form of unauthorized access is significantly complicated.

Regarding maintenance, INTEGRA-pw has minimal maintenance requirements due to the use of threaded locks and the system's round bars, galvanized according to DIN EN ISO 1461, contribute to a minimum of maintenance.

INTEGRA-pw is a customized, efficient, and secure system that complies with European standards for parking structures.



SAFETY BARRIERS NORDISK PROFIL IN COOPERATION WITH projekt w



DIFFERENT INTEGRA-pw SOLUTIONS

CHOOSE THE RIGHT SOLUTION

Pay attention to the load requirements of the structure.

INTEGRA-pw 0.1

Safety barrier for railing with a load capacity of up to 100 kg.

INTEGRA-pw 2.5

Safety barrier for people and cars up to 2.5 tons.

INTEGRA-pw 3.0

Safety barrier for people and cars up to 3 tons.

INTEGRA-pw 3.5

Safety barrier for people, cars, and vans up to 3.5 tons.

INTEGRA-pw X-long

Safety barrier for people and cars up to 3 tons with supporting spans of up to 7806 mm.

INTEGRA-pw Lock

Protection against vandalism and foundation (base) for green facades.

EXTRA COMPONENTS

For INTEGRA-pw, various (additional) elements are offered that can enhance both function and appearance.

Optional handrails are available in galvanised or stainless steel, contributing to increased safety in a parking structure.

As protection against glare and as an additional stylish design element, it is advantageous to complement INTEGRA-pw with our facade lamellae. Similarly, various types of smooth or perforated panels can also contribute to protection.

Data sheets can be downloaded on our website www.nordisk-profil.dk on page INTEGRA-pw.

COMBINE AN ELEGANT FACADE SYSTEM WITH INTEGRA-pw

Facade systems from Nordisk Profil can be advantageously combined with INTEGRA-pw. Instead of having the safety barrier visible, a parking structure's architectural expression will be enhanced if the facade is clad, for instance, with a Woodfac Click or Napsu facade solution.

Regardless of the choice of facade solution, all systems are mounted directly on the safety barrier. The installation requires no substructure but is set up directly on the barrier. The straightforward installation and absence of extra elements contribute to keeping costs down.



DYNAMIC IMPACT TEST

Nordisk Profil has conducted and successfully passed tests with INTEGRA-pw in accordance with EN 1991-1-7.

All our facade components, whether in wood or aluminum, which were mounted on the safety barrier using U-shaped fastening profiles in the test, remained intact and did not detach during the simulation of a vehicle collision.

Thus, Nordisk Profil has provided documented evidence that our facade solutions can be combined with INTEGRA-pw and withstand the impact of a worst-case collision.

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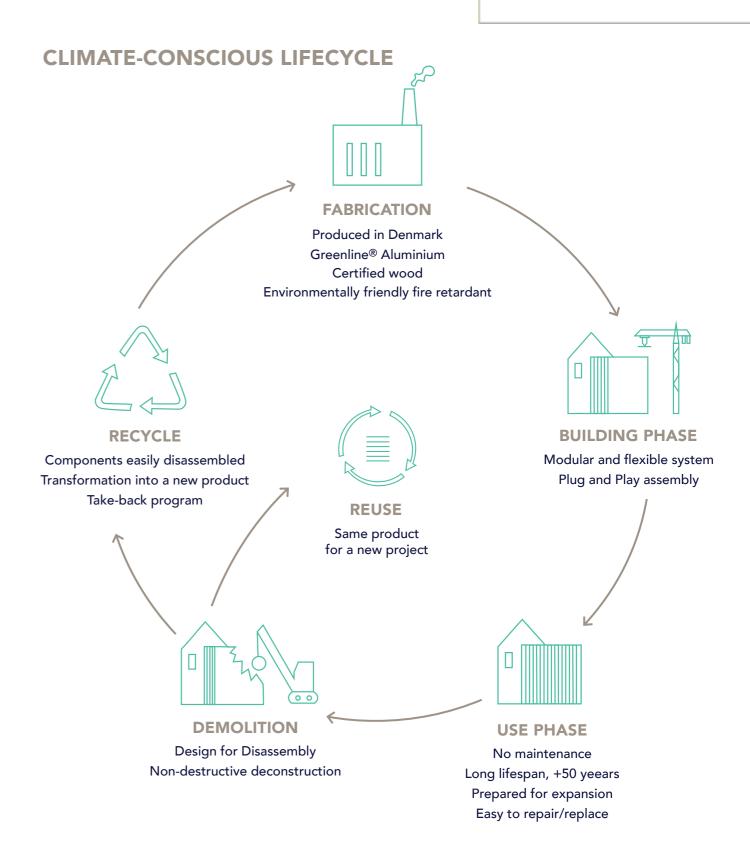


OUR GREEN FOOTPRINT

As a producer and supplier of facade solutions, it is our responsibility to contribute to a responsible development in the construction industry, with a focus on the environment.

We strive to consistently stay ahead with responsible and environmentally conscious facade solutions, placing significant emphasis on the lifecycle of our products. This means that we gaurentee CE marked products that are flexible, modular, reusable and have the oppertunity to be transformed for other use. Just like we are recycle products and document their properties.





Read about the individual phases on the following pages.

45 UNIQUE PROPERTIES UNIQUE PROPERTIES 40

NORD SK PROF L

THE PRODUCTS CLIMATE **CONSCIOUS LIFE CYCLE**

FABRICATION

All production and preparation takes place in Denmark.

All facades are manufactured from top-quality materials with a strong focus on environmental and climate considerations.

The systems construction, profiles, and lamellae are made exclusively from Greenline aluminium, which is 100% collected and recycled. Greenline has a very low CO₂ footprint of only 1.8 CO₂eq/kg. compared to primary aluminium at 11.1.

Wood lamellae are made solely from FSC® or PEFC™ certified wood, ensuring responsible and sustainable forestry.

For fireproofing the wood lamellae, we use a Cradle to Cradle-certified flame retardant, which is made from 100% natural substances. free from toxins and VOC emissions, and is 100% biodegradable.

BUILDING PHASE

The facade solution is custom made and designed to be adapted to every projects to avoid waste.

It is designed as a modular system with large design freedom and flexibility. Modular elements are easy to expade and adapt the facade for future use.

Key features of the facade system includes easy, fast, and quality-assured installation thanks to the unique Plug and Play mounting system, which ensures a high level of detail.



The facade system requires minimal maintenance and has a lifespan of at least +30-50 years.

The thermal treatment of the wood lamellae helps ensure dimensional stability and long lifespan. Aluminium is renowned for its exceptional durability, with 70% still in its original form.

The modular facade system is designed to handle facade repairs without visible transitions and allows for the addition of extra lamellae cladding from Nordisk Profil.

Nordisk Profil deliver Greenline certification and EPD reports that document a low climate footprint and the markets best EPD values.

DEMOLITION **REUSE RECYCLING**

It is essential for Nordisk Profil to offer products that can easily be disassembled and reused to other projects or uses.

With focus on 'Design for Disassembly' we offer facade systems where each component is designed and composed with the purpose of being able to be seperated and transformed.

All components can be dismantled and reused to new products in their original form or after adjustments. Just like it is possible to disassemble and reuse the facade cladding one-to-one for a new project.

If the facade needs to be disassembled, Nordisk Profil offers a take-back-scheme with collection and recycling.



GREENLINE ALUMINIUM CO₂ footprint is only 1,8 kg CO₂ eq/kg.

UNIQUE PROPERTIES UNIQUE PROPERTIES





YOUR FIRE TECHNICIAL SPARRING PARTNER

GET CONTROL OF PASSIVE FIRE PROTECTION

Nordisk Profil offer professional advice about choices regarding a facade right from the inital idea to the installed facade, and ensures that you operate in accordance with legislation and fire safety requirements.

We know how important it is to have control of the fire technical requirements, as they often determine material choice, dimensions, design and budget.

That is why we are more than just your facade supplier!

We are also available as your fire technical sparring partner that advises on fire strategy for a facade project, and help ensure the passive fire protection in the initial phase.

Facade solutions from Nordisk Profil are delivered with full documentation according to fire (end-use classification test), sustainability (EPD, VOC) and durability (EN 16755).

We assist in identifying opportunities and variables for facade cladding in relation to applicable building regulations and provide guidance on necessary fire safety documentation including pre-accepted solutions, comparative analysis, fire safety dimensioning, and preliminary fire testing.

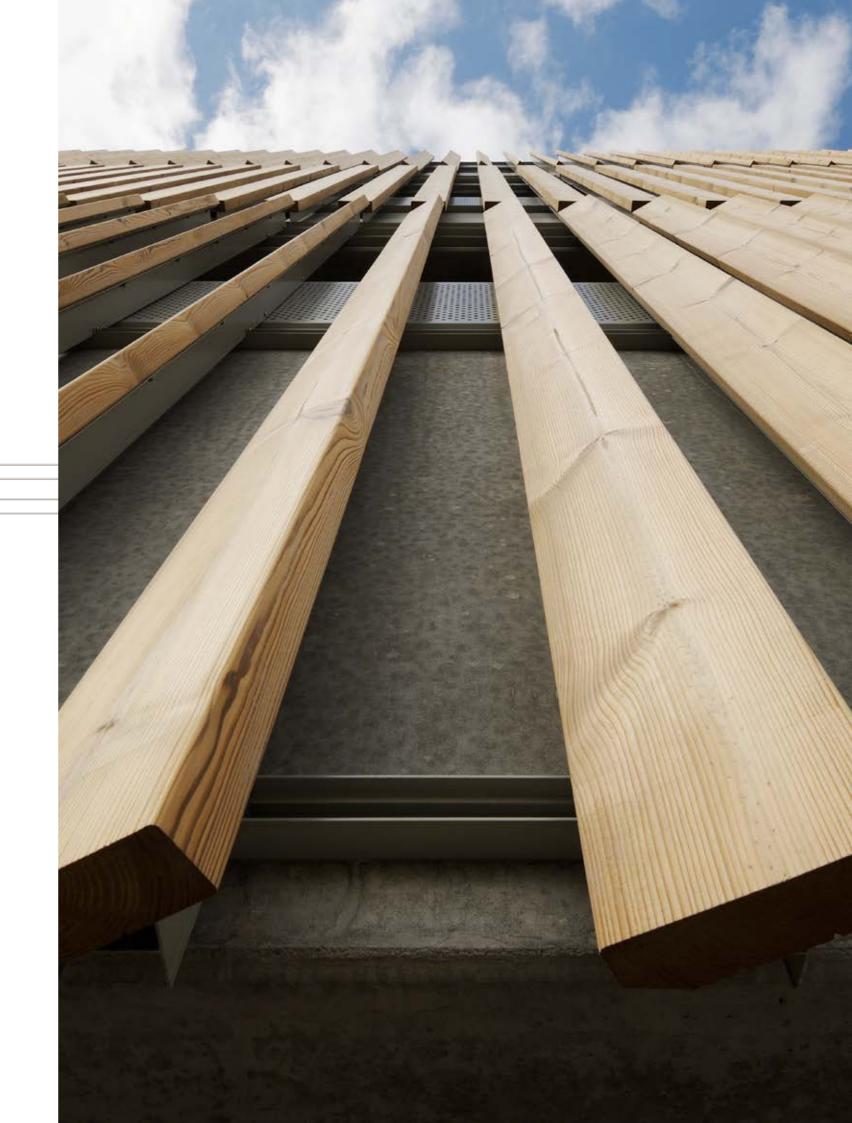
GET ADVICE AND GUIDANCE ON

Fire strategy report

Material selection and design with regard to fire class requirement

Fire technical rules and options for the main facade and climate shield.

Facade cladding options and cariables with regard to European Standards EN 14915



NORD SK PROF L

FIRE-APPROVED FACADE SOLUTIONS

YOUR GUARANTEE FOR QUALITY AND SAFETY

As the leading producer and supplier of wood facades, Nordisk Profil fulfills the requirements of Europeans standards in regards to EN 14915.

This means that our wooden facades comply with all necessary harmonised standards and meet the requirements and regulations for external facade cladding, which include:

THIRD-PARTY SAMPLING

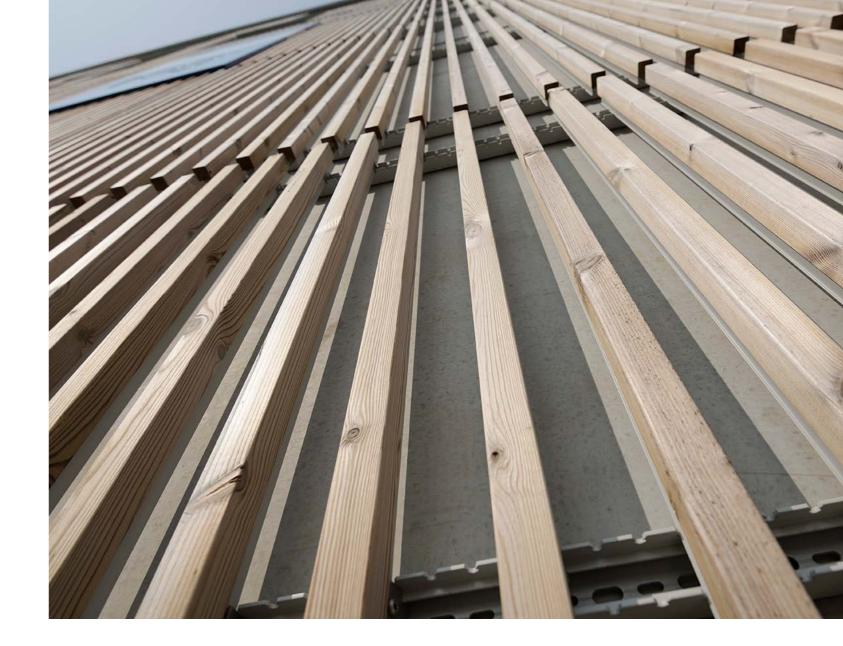
Independent sampling to ensure consistent quality

CLASSIFICATION REPORT

Documentation of products' performace

MONITORING AND CONTROL

Continious monitoring of products conducted by a notified third-party organisation







FIRE-SAFE FACADE CLADDING

At Nordisk Profil you get a facade system fully fire-technically approved and documented that coheres with international standards.

Lamellae cladding that is end-use tested and documented in regards to EN 13501-1 after standard EN 13823.

Woodfac is therefore a facade solution that lives up to the fire technical requirements EN 14915 and is the only facade system on the market to be classication tested and passed, according to B-s1,d0, and B-s2,d0.

We have also tested and passed reaction-tofire facade test according to ISO 13785-1 with a guarantee and quality stamp for fire safe materials.

Read more about the wood lamellae durability and how this is tested on the following pages.

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NORD SK PROF L

FIRE TECHNICAL DURABILITY

FIRE IMPREGNATION THAT LIVES UP TO EN 16755

The EN 16755 standard for fire-retardant wood is your guarantee for long-term fire safety.

It is not a fire safety requirement but rather a method to measure and document fire-retardant properties over time, as the wood lamellae are exposed to different weather conditions.

To ensure the best and safest conditions for our wood cladding, we exclusively use Burnblock's fire retardant, which is the only product on the market to have achieved full accreditation, approval, and complete classification according to EN 16755.



The fire retardant provides complete protection, maintaining the fire-resistant properties for the lifespan of the wood (ISO 5660-1) – both before and after accelerated aging tests according to test method EN 927-6, which is part of the EN 16755:2017 testing process.

Additionally, it meets the hygroscopic requirements specified in EN 16755:2017. This ensures a healthy and durable facade, as the wood retains its strength and shape when exposed to moisture.





CLIMATE-CONSCIOUS THINKING

In addition to fire safety requirements, the sustainability of a fire retardant is, of course, also crucial for Nordisk Profil.

An important factor for sustainability is the standard for VOC emissions and material health, which Burnblock's fire retardant fully satisfies.



The fire retardant is made of 100% natural substances, is 100% biodegradable, non-toxic, and free from VOC emissions.

With these excellent sustainable qualities, the fire retardant has achieved Cradle to Cradle Gold certification and has earned Platinum status in material health.

UNIQUE PROPERTIES 5





DESIGN AND PROJECT MANAGEMENT

GET OFF TO A GOOD START

At Nordisk Profil, we highly value close collaboration, working together to find the optimal facade solution.

We offer professional and comprehensive project planning, where the architect's visions are realised, and the client's or authorities' requirements are met – all with thorough review and assessment, as well as full control over material specifications.

SPECIALISED PROJECT PLANNING FOR A COMPLETE RESULT

TECHNICAL DRAWINGS AND ILLUSTRATIONS

We prepare facade drawings, facade sections, and technical details that describe and illustrate the design and geometry of the facade solution. These drawings serve as a basis for collaboration with the architect, contractor, and installer to ensure consensus regarding the final solution, aesthetic expression, and installation process.

STATIC CALCULATIONS

When Nordisk Profil is part of the project planning, we handle the facade solutions static calculations while taking into consideration all safety and performance standards. The calculations ensure that the facade withstands the forces it is exposed to while maintaining aesthetic and functional quality. The work includes factors such as self-weight, wind load, temperature effects, material strength, load-bearing capacity, connections, and fire safety assessment.

MATERIAL SPECIFICATIONS

Based on collaboration with the project stakeholders, facade drawings, technical details, and structural calculations, we prepare the final material specification for all facade components. From then on you are ready to place an order for materials without suprises or cutting corners.



LEAVE THE PROJECT PLANNING TO US

Project planning needs to be prioritised. Lead this to Nordisk Profil and get off to a good start, and leave the risks behind.



EFFECTIVENESS

Leave the whole process to Nordisk Profil and save valuable time and resources.



RISK FREE

Avoid the risk of having to create material specifications and detailed design solutions for corners, transitions, doors, windows, etc., on your own.



IMPLEMENTATION SUPPORT

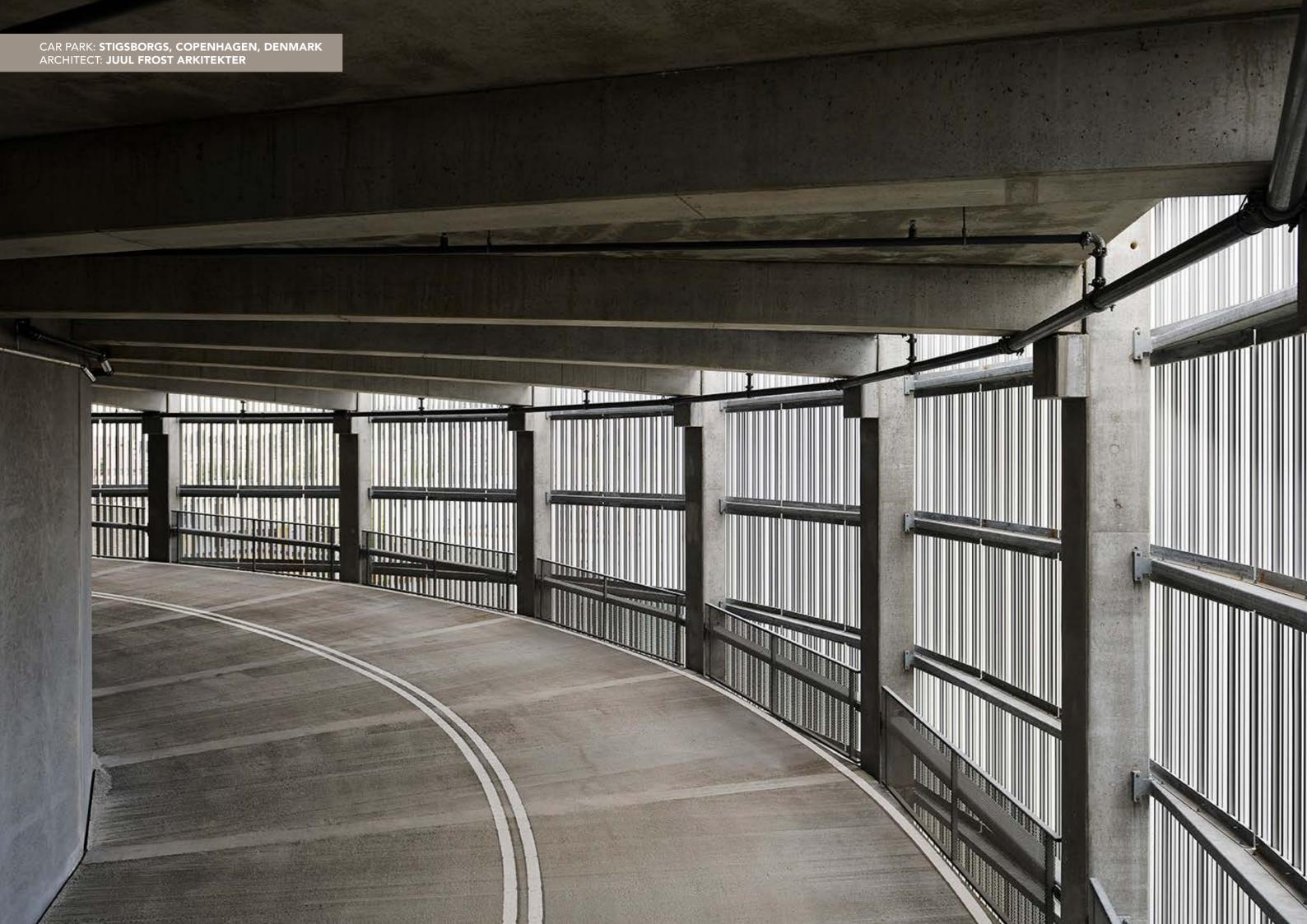
Our expertise is available from start to finish, supporting you throughout the entire implementation process.

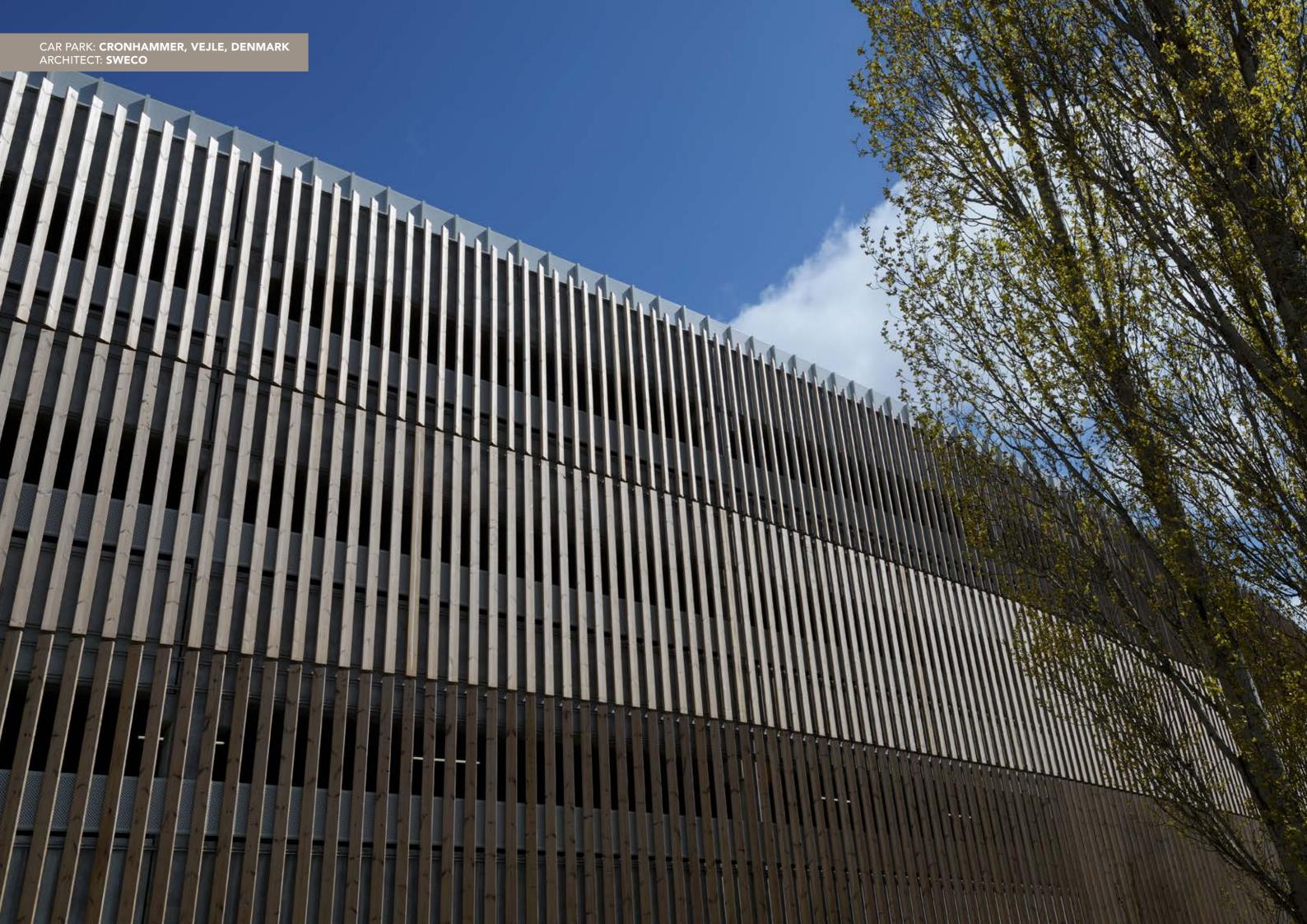


COLLABORATION

We don't expect ourselves to just deliver the expected, but also to be a reliable sparring partner that optimises wishes and needs for the facade for the benefit of you as a client.

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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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