



## Portfolio WFX and PRO

Sustainably made flame retardant wood with long-lasting properties for interior and exterior use.

Made in Sweden by Woodsafe Timber Protection AB



### Let's get in touch

Woodsafe Timber Protection AB

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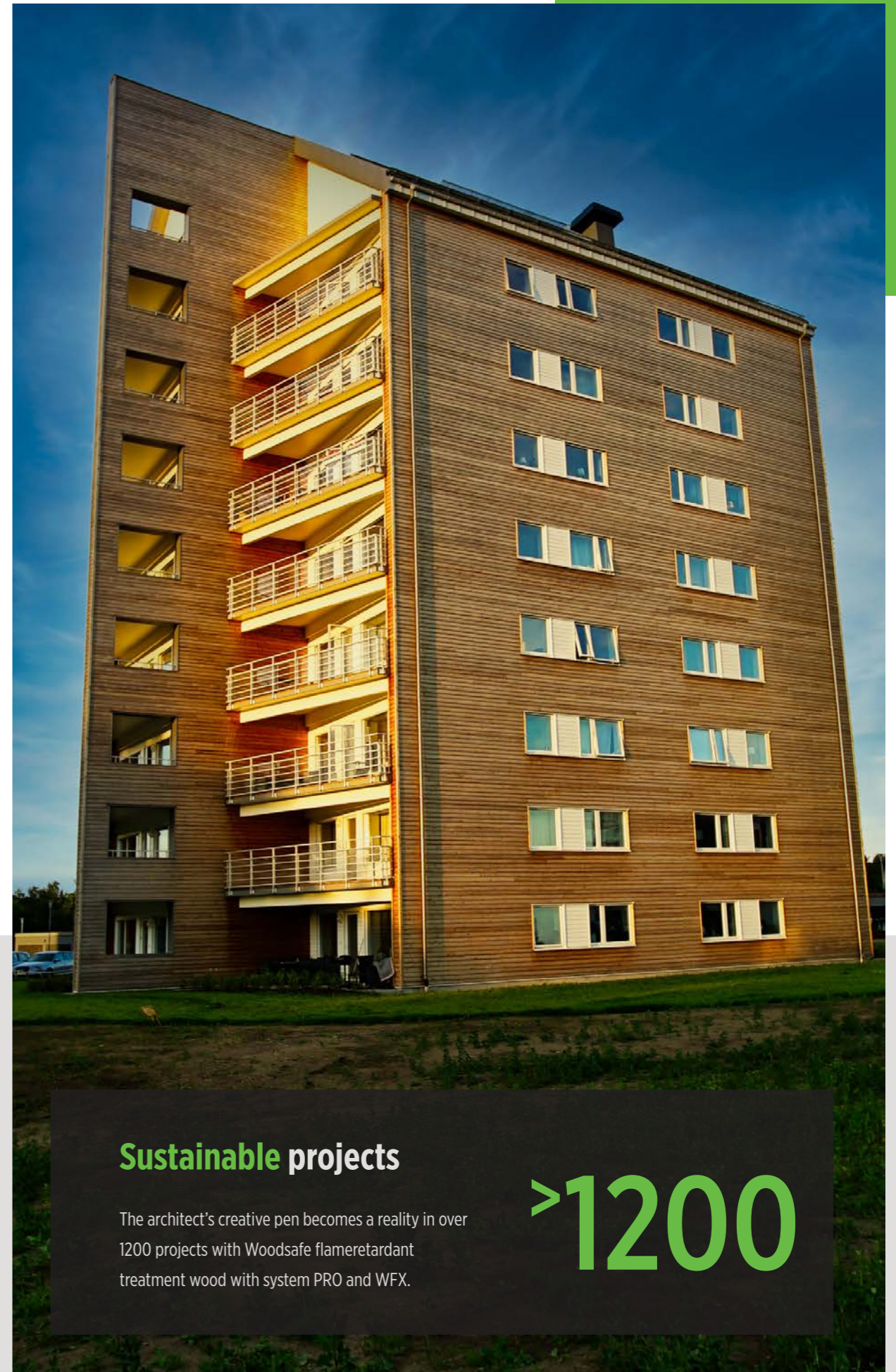
Welcome to a world of  
flameretardant treated wood projects

# This is our latest portfolio

We believe in sustainable wood products with fire protection properties.

Woodsafe's mission is to add value to wood's natural fire resistance properties. Our processing technology delivers the maximum fire protection performance that wood can achieve without adversely affecting people's health and the wood's natural properties.

We know that ordinary wood does not meet society's fire safety requirements, and this is something we intend to change in order to benefit people who want to live surrounded by wood. In the long run, our mission contributes to a lower carbon footprint by reducing the number of fires that emit toxic fumes and minimising the need to restore buildings using new material inputs.



## Sustainable projects

The architect's creative pen becomes a reality in over 1200 projects with Woodsafe flameretardant treatment wood with system PRO and WFX.

>1200



### Sustainable schoolbuilding made of wood.

A school lays the foundation for children and young people's development. To invest in the school is therefore to invest in the development of the whole society. Minnebergsskolan is characterized by wood, which is environmentally wise and linked to Värmland's strong wooden building tradition.



### Fire performance

Heat modified cladding of pine with approved properties SP-Fire 105 and EN16755 EXT.



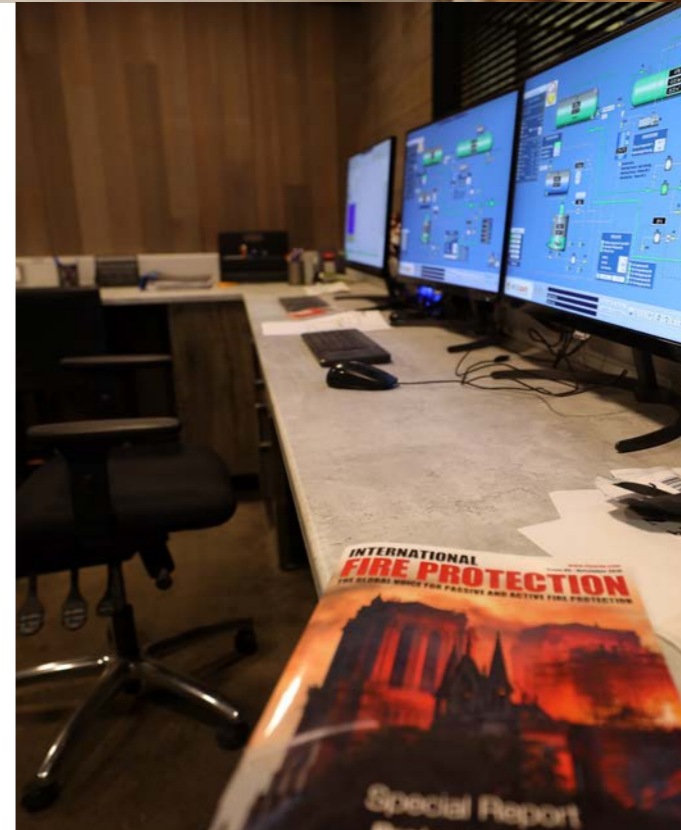
### Availability

Heat modified is available in most different systems and types of wood, e.g. Abodo, Pine, Spruce, Poplar, Frake, radiata Pine.




### Industrial process

Woodsafe's technology for refining fire protection wood properties is done by industrial design via vacuum pressure impregnation process according to our manufacturing manual (ISO 9001), which was reviewed and certified by RISE (No.body 0402).



### WQS quality system

Our industrial processing takes place according to a control schedule with over 100 control points in our unique WQS system, approved by Wood Protection Association (UK), RISE (SE) and Treteknisk institute (NO).

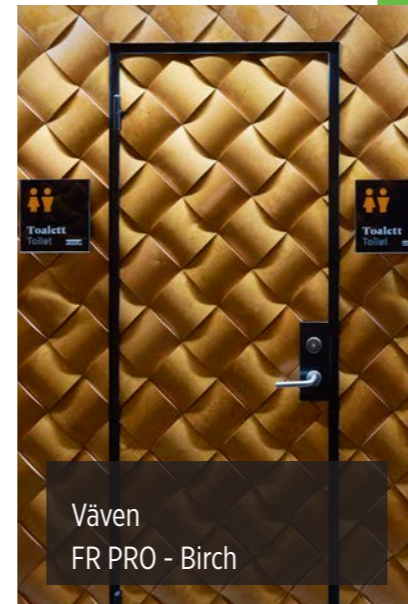
Woodsafe services is certified according to European Construction Product Regulation 305/2011 and harmonized standard EN14915 since 2009.

# Awesome Woodsafe PRO design

Fire protection is often associated with surface layers and ugly surfaces. But it does not have to be that way. With Woodsafe PRO, feeling, structure and nuances are retained with an impressive result.



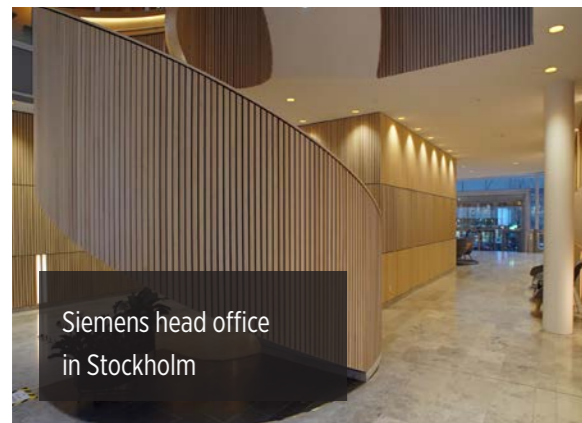
Väven is a culture house in Umeå.



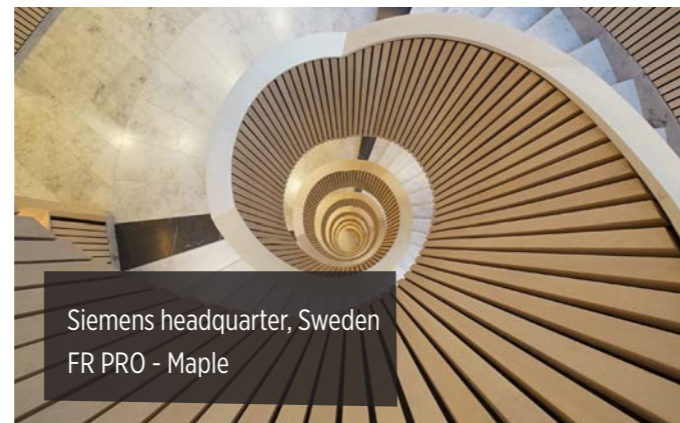
Väven  
FR PRO - Birch



Credits for photo: Stylt Trampoli



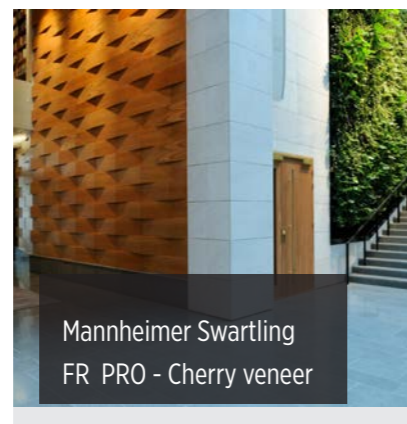
Siemens head office in Stockholm



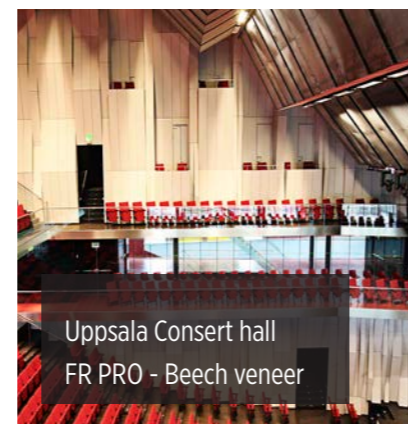
Siemens headquarter, Sweden  
FR PRO - Maple



Stockholm Waterfront  
FR PRO - Ash

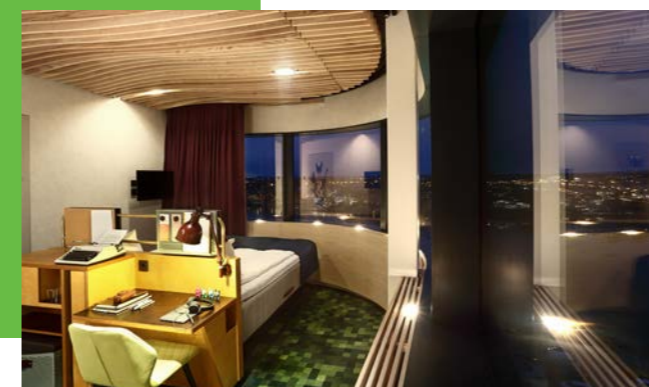


Mannheimer Swartling  
FR PRO - Cherry veneer



Uppsala Concert hall  
FR PRO - Beech veneer

Oak ceiling in a restaurant environment at U&ME hotel creates peace and harmony with perfect acoustics. Oak ceiling is provided in a unique All-In-One (AIO) concept that is tailored completely according to conditions and vision. Woodsafe Pro is available in several different types of wood via AIO concepts such as white oak, maple, ash, red smoke and can be surface treated in most variants of paint and varnish systems.



## Unique properties that add value.

- Four sides of deep impregnation fire protection.
- The impregnation does not form a film-forming layer.
- Preserves the texture, feel and shade of the wood.
- The wood becomes the fire class following impregnation.
- Approval in several variants such as air gaps, secondary spaced boarding.
- Not impacted by the natural movements of the wood.
- Long-lasting properties.
- Non-hygroscopic properties EN16755 INT1, INT2.
- Humidity resistance (WPA, HR)

# Sustainable Production



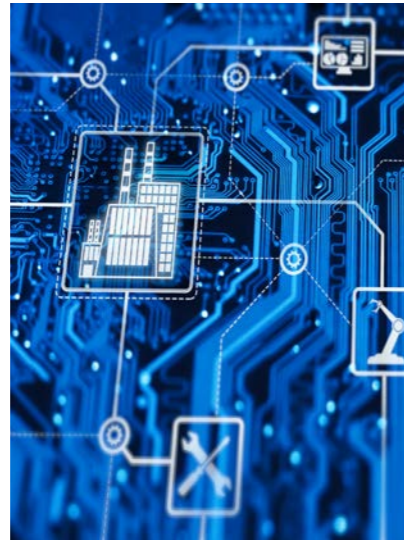
## We Add Sustainability

Sustainable flame protection requires sustainable production. Woodsafe has a carbon dioxide neutral footprint during impregnation, fixing and drying. Sustainability and well-thought-out resource utilization of energy and heat are at the heart of our conscious sustainability work. All loading and internal handling of wood products is electrified and charged from our own solar power plant. Lighting and all other energy-consuming sources have been replaced by LEDs that are controlled by motion and energy-efficient motors where maximum performance for such a small energy requirement is possible.



### Energy efficiency

To a great extent, the transition to a sustainable society involves electrification. Woodsafe has vast roof surfaces that we don't believe should be left empty, but instead should make way for solar energy. Woodsafe contributes to this goal by selling its surplus electricity to the grid, with guarantees of origin.



### Digitalisation

Woodsafe is far ahead in digitalisation where most informative knowledge websites are available and within team Woodsafe we work efficiently with our own developed cloud solutions and quality systems.



### Recycling

Woodsafe has a common thread in source sorting and recycling with successful key figures in our sustainability work. We continuously measure our results and are constantly on the lookout for improve-

# World Expo Dubai 2020



## On behalf of the Ministry for Foreign Affairs

Woodsafe is hired by Sweden to secure the representation of sustainable wood construction where The Forest is displayed in the Dubai desert. The World Expo Dubai 2020 is the greatest show ever.



## A different project

At the turn of the year 2019-2020, more than 250m<sup>3</sup> of tree trunks will arrive at Woodsafe to be refined to be able to achieve one of the world's strictest fire requirements in Dubai, a country that does not allow wooden buildings. Woodsafe accepted the challenge and fire-proofed all the tree trunks, joists and panels for this by far the most unique project we have ever undertaken.



## The challenge

The Forest challenged us in time pressure, handling large materials and well documented process and certification. In dialogue and discussion, The Forest is accepted in Dubai, something no one could believe when the idea was born to showcase Sweden's green gold in the desert.

[www.expo2020.se](http://www.expo2020.se) | [www.expoupdate.se](http://www.expoupdate.se)

## Woodsafe Exterior WFX is the original.

Flame protected wood without surface treatment is popular. Woodsafe WFX is the original when other players claim equivalent properties. Third party accredited documentation confirms Woodsafe Exterior WFX unique features and sets the bar for other players to present at least equivalent documentation from notified bodies.

%  
**100**



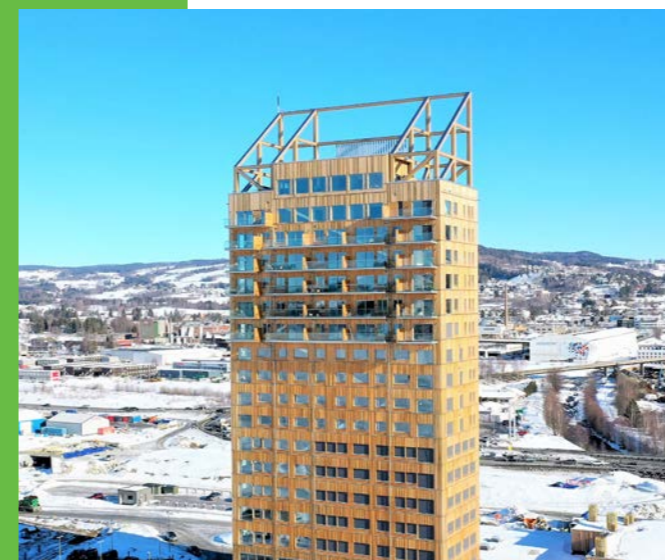
## Gardemoen, PirNord. World largest oak roof.

The airport's new Pir Nord is 300 meters long and have an area of 63,000 square meters. Gardemoen airport has sustainable solutions that make OSL the world's most climate-friendly airport, and the only one that is classified as BREEAM Excellent. Oak panels are flame retardant treated with Exterior WFX.



## Frostaliden. Largest residential area in wood.

At Frostaliden in the Swedish city of Skövde, a new neighbourhood is growing, where timber is the predominant material. This garden city will be one of the largest wood-clad boroughs in the country with 1.200 housing units for 4.000 residents. Cladding is WFX impregnated.



## Mjøstårnet. World highest wooden skyscraper.

At 85,4 metres tall, Mjøstårnet, design by Voll architect, is the worlds highest wood building. Mjøstårnet has a combined floor area of 11,300m<sup>2</sup>. The building has 18 storeys that include apartments, a hotel, offices, a restaurant, a rooftop terrace and common areas. Cladding is WFX impregnated.

# Cedar Shingles

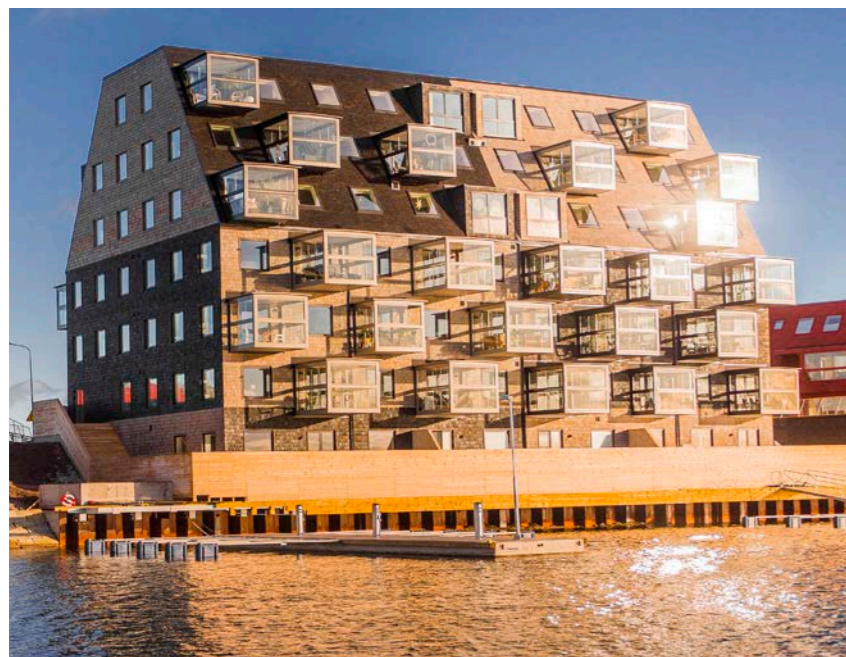


## Universum, Gothenburg

December 2021, Universeum's visualization dome and public visualization lab will be ready. Here, science must be explained and explored so that it is felt in the stomach, tickles along the nerve pathways and gets stuck in the head. The WRC shingle cladding is flameretardant impregnated with WoodSafe Exterior WFX®.

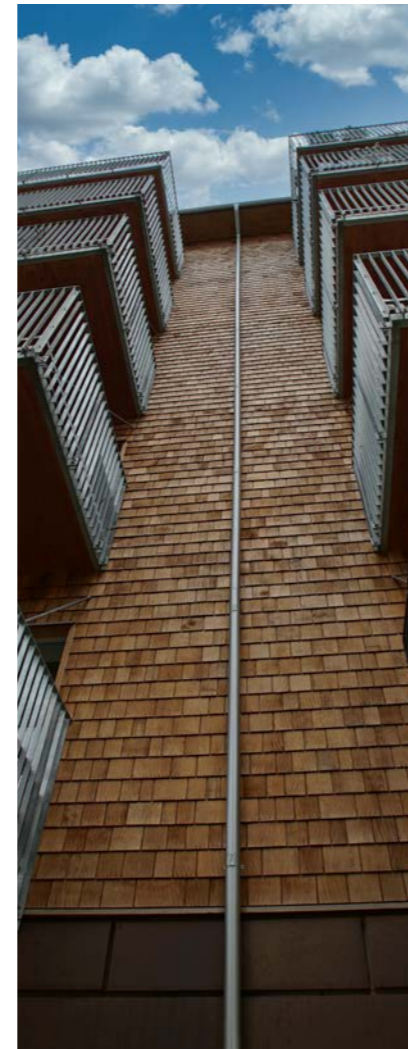
## Cederhusen, Stockholm

This unique project is a showcase for the industry of how far the technology has come. Timber accounts for roughly 20 percent of new multistory buildings in Sweden, but that figure is on the rise. The facade cladding consists of yellow thuja, fire tested and approved according to SP-Fire 105 with flameretardant system Woodsafe Exterior WFX®.



## Kilströms kaj, Karlskrona.

Where land meets sea in the world heritage city Karlskrona which is built on islands in the middle of the Blekinge archipelago, three unique wooden buildings boast character traits from Karlskrona's landmarks and where the facade cladding consists of Western Red Cedar Shingles, colored in red, silver gray and black fire impregnated with Woodsafe Exterior WFX.



## Kajstaden, Västerås.

Western Red Cedar Shingles flame retardant treated with Woodsafe Exterior WFX is the only system approved according to SP-Fire 105.



## Illustrationen, Linköping.

Facade // Exterior WFX

Siberian larch mounted on facade for natural aging process. Flame retardant treated with Woodsafe Exterior WFX.



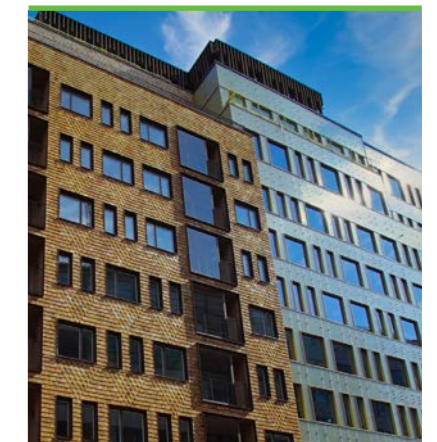
Unique design projects



## Universum, Gothenburg.

Public area // Exterior WFX

Woodsafe Exterior WFX treated cedar shingle adorns this science center and the digitalization of the future.



## Sergelhuset, Stockholm.

Leed Platinum winner // Exterior WFX

Sergelhuset is a unique example of a harmonious and integrated approach to social and environmental sustainability with a superb design in the middle of central Stockholm.

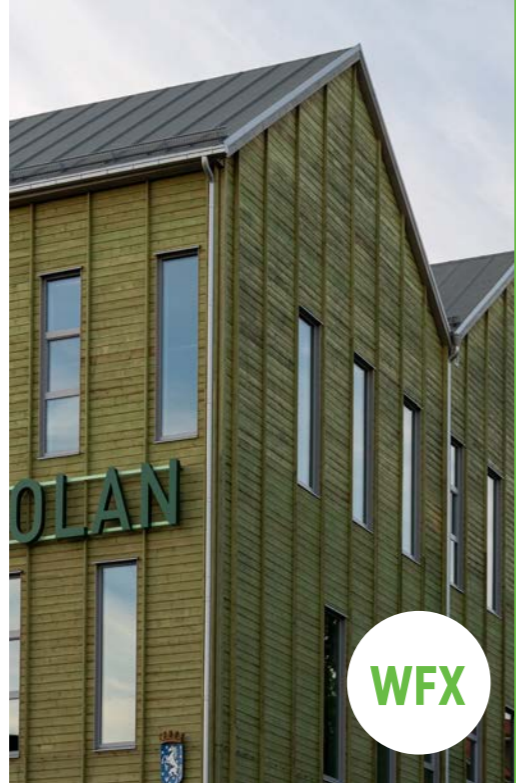
# Colored Cladding



Woodsafe Exterior WFX and Woodsafe PRO is manufactured with 100 percent own green energy and products handled by electric loaders. There are opportunities to paint, laser or paint exterior facade claddings.

Having a sustainable flame protection based on a sustainable composition of chemicals that can withstand the environment in which the product is placed is a matter of course, but it is also very important and what is often forgotten in the footsteps of talk about sustainability is that the entire chain must be green and sustainable.

Woodsafe is the only manufacturer that is carbon dioxide neutral in its production of fire-impregnated wood.



## Widenska highschool, Västerås.

HIGHSCHOOL // Exterior WFX

With an inspired fire-impregnated facade with Exterior WFX, Widenska high school programs focus on sports while you get full eligibility for all higher education.



## Colored wooden facade, Linköping.

GREY HEAD MODIFIED CLADDING // Exterior WFX

With an inspired fire-impregnated facade with Exterior WFX, Widenska high school programs focus on sports while you get full eligibility for all higher education.



## Three different facades

Woodsafe PRO // Woodsafe Exterior WFX

Woodsafe gives you the freedom to choose different types of wood as facade cladding, with or without surface treatment with documented properties.



## Natural aging, Netherland.

VARIANTS OF HEAT MODIFIED WOOD // Exterior WFX

Variants of heat-treated wood such as pine, spruce, radiata pine, ayous, frake, poplar, nobelwood give you the freedom to create creative buildings and facade solutions



One of Woodsafe's many unique projects.  
Here is the story from Greenland.



Credits to: Adam Mörk

### Ilulissat Icefjord Center

For most things in life, it is best to start with an overview, and the Ilulissat Icefjord is no different. This icefjord, one of the northernmost UNESCO World Heritage Sites, is a massive collection of icebergs that have calved from the Sermeq Kujalleq glacier one by one. It is necessary to first get a bird's eye view so you know exactly how grand of a scale the Ilulissat Icefjord has. Unless you arrive to Ilulissat on the coastal ferry, your first sight of the Ilulissat Icefjord will actually be from the window of an airplane. It's a nice view, but get an even

better look by flightseeing with a helicopter or fixed-wing plane. These smaller aircraft fly slower and lower all the way to the glacier wall, and with only a handful of seats, everyone has the best view in the cabin. You might even feel the rumble of the glacier calving beneath you, and then it really feels like an adventurous ride. In this project, more than 50 cubic Woodsafe PRO flameretardant treated oakwood has been used for interior ceiling mounting in an All-In-One collaboration. (www.allinoneconcept.com)

### Intresting facts.

- Ilulissat means 'icebergs'.
- Ilulissat was founded in 1741 as Jakobshavn. With approximately 4530 residents, it is the third largest town in Greenland.
- The iceberg that sank Titanic was probably born in Ilulissat.
- Icebergs in Disko Bay come from the Ilulissat glacier, Sermeq Kujalleq, the world's fastest glacier. It advances 40 meters daily and creates 46 cubic kilometers of icebergs annually.

Source: <https://visitgreenland.com/destinations/ilulissat/>

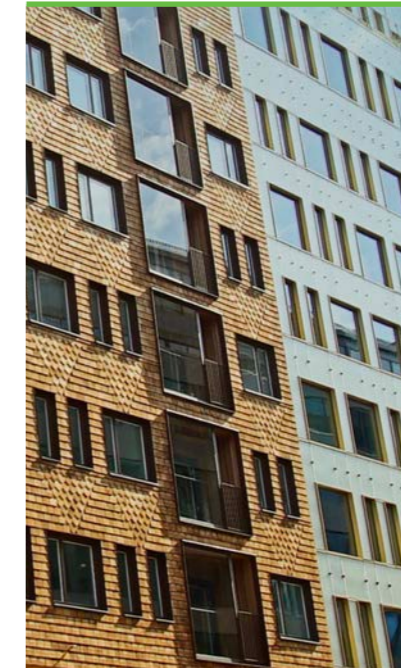
# Project winner of the year

New



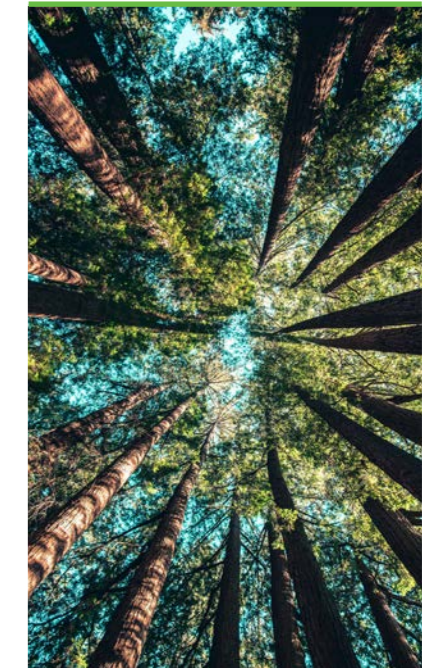
**ILULISSAT ICEFJORD CENTRE.**  
Greenland // Architect Dorte Mandrup

On the border of the UNESCO-listed Ilulissat Icefjord lies Kangiata Illorsua – Ilulissat Icefjord Centre. Woodsafe PRO oak ceiling.



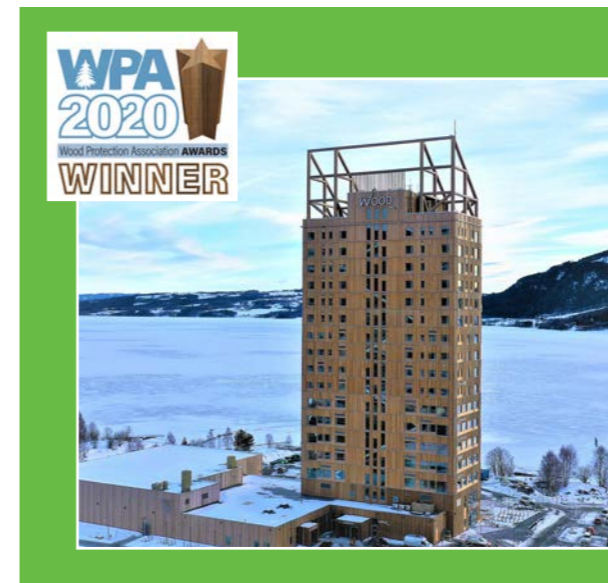
**SERGELHUSEN**  
SWEDEN // Vasakronan. Marge arkitekter.

This is the fourth LEED V4 BD + C certified project in Sweden and the second Swedish project to reach Platinum. Woodsafe Exterior WFX WRC Single.



**LIDL FOOD STORE**  
SWEDEN // Link arkitektur.

Lidl's store in Visby will be the first to be certified in both Sweden Green Building Councils (SGBC) Zero CO2 and Bream SE 2017, a model for other industries and store buildings in the country.



### MJØSTÅRNET AT LAKE MJØSA, NORWAY.

Wooden skyscraper // Voll Arkitekter

Woodsafe named winner of the "Wood Protection Project of the Year" award at the Wood Protection Association (WPA) Award Event 2020. The winning project is Mjøstårnet at lake Mjøsa (Norway's biggest lake) where this fantastic skyscraper extends 85.4 meters into the sky.

*"This Award recognises the important role that wood protection technology plays in enhancing the durability or fire performance of wood used in a construction, engineering or landscaping application. Projects of any size in the UK or further afield must demonstrate how factory applied pre-treatments allow designers to confidently select wood as a sustainable, low environmental impact, material of choice."*



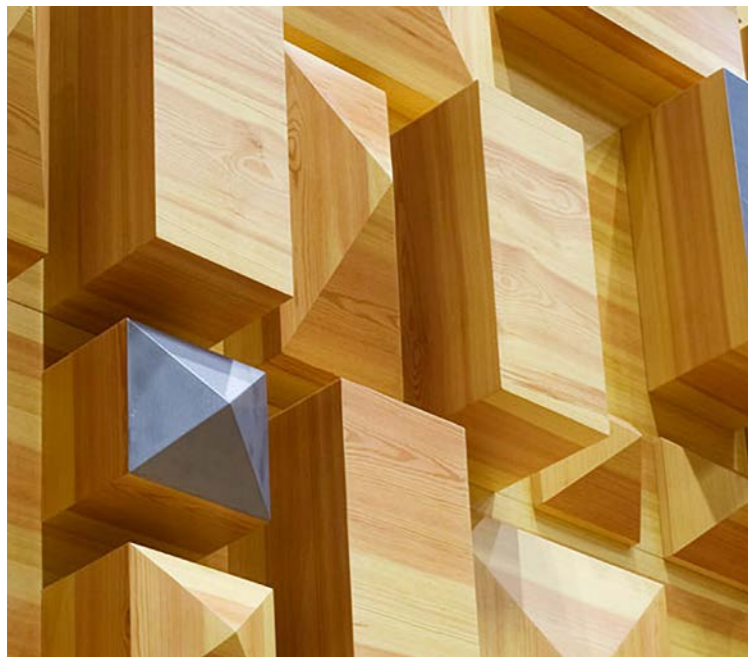
Credits to: SSC



Credits to: SSC



Credits to: Michael Perlmutter



**Culture house, Luleå.**

The facility is 14,000 m<sup>2</sup> large, and houses the city library, art gallery, conference rooms, large and small concert hall, multifunctional foyers on three floors and a café and restaurant. The large concert hall can accommodate about 1,000 people and the small concert hall can accommodate up to 300 people. In this project Woodsafe PRO been used for flameretardant treated birch plywood, solid pine, spruce and birch.

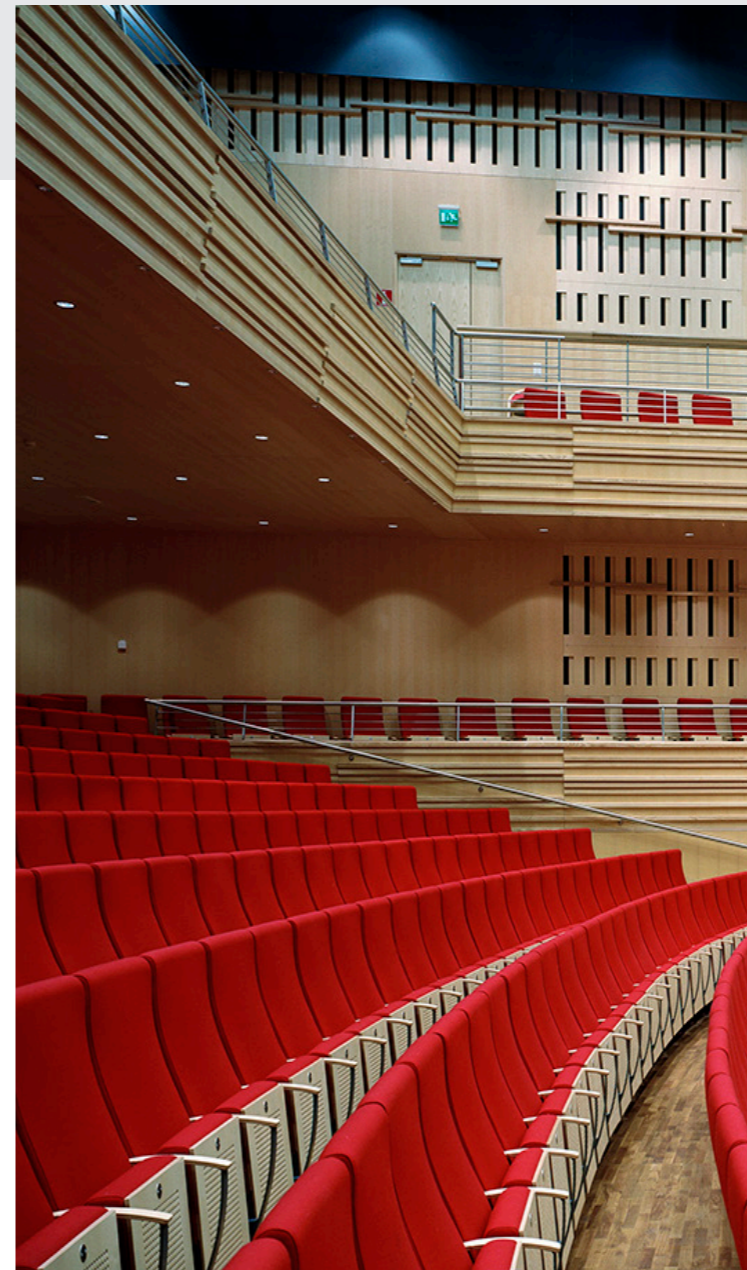
**Västerås concert hall**

Västerås concert hall was inaugurated on September 7, 2002 by King Carl XVI Gustaf. In the first year of operation, the concert hall had about 86,000 visitors. The large hall has 912 seats and the small hall about 200 seats. In this project Woodsafe PRO been used for flameretardant treated plywood and pine.

**Perfect acoustic with Woodsafe PRO**

Wood is a living material where the natural properties of each individual wood generate a unique sound in environments such as auditorium, concert hall, auditorium, arenas and more. Woodsafe PRO is the solution that provides the opportunity for the perfect fireproof sound. The range of Woodsafe PRO via All-In-One concept includes plywood, oak, ash, maple, birch and others.

Some of our reference: Stockholm Waterfront, Aula Medica, Louis De Geer, Oskaria music hall, Malmö music hall, Tele2 arena, The Globe, Studio Acusticum, Wallenbergsalen, Västerås conserthall.



Credits to: SSC

## Tried, Trusted and Tested worldwide for more than 60 years

Wood as a facade cladding for a natural aging, ie no surface treatment, places high demands on the composition and properties of the flame protection agent to be suitable in an external environment. Fire class is a property that does not require durability, while durability requires suitable properties to ensure overtime the fire class.

Woodsafe Exterior WFX is unique in its kind and the only flame retardant system that has the property of being able to be used in an outdoor environment, completely without requirements for surface treatment.

Woodsafe Exterior WFX has been proven worldwide since the 1960's and should not be equated with simple ammonium solutions better known as simple salt solutions.



### We are a certified manufacturer accredited by a reputable and credibly accredited notified body

- Third party manufacturing control
- Certified according to 2011/305
- Certified according to EN14915
- Certified according to EN16755 INT1, INT 2, EXT
- Certified according to WPA as LR (Leach resistance)
- Certificate quality and management system ISO 9001:2015
- Certificate Environmental management system ISO 14001:2015
- Reference: 0402-CPR-SC0260-15, TG 0263-08, 5859, 5859M



# Durable flame protection from a sustainable CO2 neutral production

## The 2030 Agenda for Sustainable Development

Woodsafe has great opportunities to contribute to several of the UN's global development goals as part of Agenda 2030 for sustainable development. Since 2020, we have mapped how our operations contribute to the global goals, and there are six selected goals in particular where our impact is greatest.

To make the 2030 Agenda for Sustainable Development Woodsafe's agenda, the entire value chain must be included in our sustainability work.

Woodsafe has identified that we have the greatest impact on the following goals:



Woodsafe consumes energy in our processes. We see a negative impact in the external environment where unloading is performed with a fossil-powered loader due to lifting capacity. What we can influence is other equipment, fuels, trucks and electricity, which we also do and where we switch to our own sustainable solar energy plant with the capacity to be self-sufficient and to sell the surplus earmarked as solar energy. Our internal consumption is converted to low-energy lighting, engines and that all trucks are charged with our own solar energy. The heat we need is created in our biofuel plant where the fuel comes from nearby sawmills in the form of pellets.



Woodsafe cares for our employees and offers a workplace where all employees can achieve a balance between work and spare time. We carry out ongoing and systematic work environment management to minimize risks in the workplace such as noise volume, monotonous tasks and heavy lifting. Financial stability in the company enables us to be a long-term sustainable employer. Woodsafe has an uneven composition of women and men in our business. There is therefore a risk that we do not yet capture all the work environment improvements and growth opportunities that a more mixed working group could contribute to.



Woodsafe contributes to the goal of sustainable cities and communities by enabling fireproof construction in wood. This means reduced emissions from the construction sector and creates safe housing and jobs for more people. Wooden buildings have a naturally improved indoor climate and can create increased mental well-being. As cities grow, new opportunities for growth are often created, but it can also increase the gaps between people, reduce habitats for plants and animals and cause increased emissions. Woodsafe's contribution to urbanization in society can thus have a negative environmental impact.



Our core business is to fire-impregnate wood so that it can be used as a building material in homes as well as in public buildings and workplaces. By offering the market products that give wooden buildings a long service life with good fire protection, we contribute to a more climate-smart construction that also increases the quality of life for people who live in the buildings and safeguard economic values. In our value chain, there is a negative climate impact in terms of transport, energy consumption and waste. We constantly strive to improve this, among other things by switching to solar, and bioenergy, low energy in all lighting, fans, ventilation, internal handling by truck.



By working together with our partners to ensure that one hundred percent of all wood raw material that passes through Woodsafe's factory is certified, we contribute to preserving ecosystems and maintaining biodiversity. Together with our partners, we also contribute to reforestation to ensure the regrowth of forests as well as biodiversity. Modern forestry is often dominated by monocultures, which has a negative impact on biological diversity. Woodsafe's operations thus run the risk of, in the long run, pushing for unsustainable forestry where biological diversity is threatened.



The construction industry accounts for 21 percent of greenhouse gas emissions. Wood binds carbon and is therefore a climate-smart building material that binds carbon dioxide both while the tree is growing in the forest and as long as the completed building is in place.

Woodsafe offers the market fire impregnation of wood which refines the properties of the wood and makes it possible to build safely in wood to a greater extent. In this way, we contribute to combating climate change. Through our value chain, we have a negative impact on climate change in the form of, for example, carbon dioxide emissions, mainly from transports located in our scope 3.

We have already reduced our negative impact and continue the work to improve our climate footprint, with the goal of becoming completely climate neutral within scope 1, 2 and 3 by the year 2025.



*"We can still improve – and we will. I remain unwavering in my belief that wood will be the building material of choice in the future" Thomas Bengtsson Founder and CEO*

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