

# Environmental Product Declaration

In accordance with ISO 14025 and EN 15804 +A2



**Owner of the declaration:**  
Superwood A/S

**Program holder and publisher:**  
The Norwegian EPD foundation

**Declaration number:**  
NEPD-6471-5734-EN

**Registration Number:**  
NEPD-6471-5734-EN

**Issue date:** 24.04.2024  
**Valid to:** 24.04.2029

**PRODUCT NAME:**  
Glulam made by  
Lilleheden, made of fully  
impregnated spruce by  
Superwood.

**MANUFACTURER:**  
Lilleheden A/S  
Superwood A/S

# General information

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## Product:

Glulam made by Lilleheden, made of fully impregnated spruce by Superwood

## Program Operator:

The Norwegian EPD Foundation  
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## Declaration Number:

NEPD-6471-5734-EN

## This declaration is based on Product Category Rules:

NPCR Part A:2021 Construction products and services Ver 2  
NPCR 015 Part B for wood and wood-based products 4.0

## Statements:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer, life cycle assessment data and evidences.


## Declared unit:

1 m<sup>3</sup> glulam, made of fully impregnated spruce by Superwood

## Verification:

Independent verification of the declaration and data, according to ISO14025:2010

Internal  External



**Julie Lyslo Skullestad**

Independent verifier approved by EPD Norway

## Owner of the declaration:

Superwood A/S

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## Manufacturer:

Glulam: Lilleheden A/S, Hovedvejen 114, DK-9850, Hirtshals, Denmark

Superwood: Superwood A/S, Palsgaardvej 3, DK-7362 Hampen, Denmark

## Place of production:

Glulam: Hirtshals, Denmark

## Management system:

PEFC (SA-PEFC/COC-007725) valid 11.09.20-10.09.25

## Organisation no:

Lilleheden A/S: 24077713

Superwood A/A: 26434602

## Issue date:

24.04.2024

## Valid to:

24.04.2029

## Year of study:

Consumption data: 2021, LCA 2023.

## Comparability:

EPD of construction products may not be comparable if they do not comply with EN 15804:A2 and seen in a building context.

## The EPD has been worked out by:

Oddbjørn Dahlstrøm Andvik

Asplan Viak AS

asplan  
viak 



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Approved (Manager of EPD Norway)

## Product

### Product description:

Superwood is impregnated, planed wood from PEFC certified spruce (*Picea abies*), from Norway, Sweden and Finland, for outdoor use above the ground. The wood is impregnated without the use of heavy metals and organic solvents. The impregnation protects the tree completely into the core so that the tree is protected against rot and wood-decomposing fungus. The process takes place without the use of water, so the wood is dry and can be used immediately after impregnation.

Impregnated Superwood is transported to Lilleheden A/S for production of glulam wood products of Superwood.

### Product specification:

Products are used as outdoor construction and facade cladding in many different types of construction and is often load bearing.

The EPD encompasses all dimensions and profiles of glulam made of fully impregnated spruce by Superwood.

Materials	kg/m <sup>3</sup>	%
Woody of spruce, dry weight	370,0	83%
Water, in wood, 18%	66,8	15 %
Glue	8,91	2 %
<b>Total (without packaging)</b>	<b>445,7</b>	<b>100 %</b>
Plastic foil (sales packaging)	0,94	

### Technical data:

Superwood has a density of 436,8 kg / m<sup>3</sup>, with moisture content of 16-18% +2%. With glue the density is 445,7 kg / m<sup>3</sup>. Superwood is protected from rot and wood-decomposing fungus according to EN 335 Use Class 3: above ground contact. For Declaration of Performance (DoP) see lilleheden.dk, PEFC Certificate and complementary information, see superwood.dk.

### Market:

The EPD includes transport to and sales in Denmark, Norway, Sweden and Germany.

### Reference service life, product:

Reference service life is 60 years according to PCR. The actual service life depends on climatic conditions and external impacts, such as construction and maintenance.

### Reference service life, building:

Reference service life is 60 years according to PCR. The actual service life depends on climatic conditions and external impacts.

## LCA: Calculation rules

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### Declared unit:

1 m<sup>3</sup> glulam, made of fully impregnated spruce by Superwood.

### Data quality:

Wood is splitted, impregnated and profiled by Superwood in Denmark. Production of glulam wood products is by Lilleheden in Denmark.

Production data is based on consumption data from 2021 for both Superwood and Lilleheden

For production of Superwood EPD *Exterior cladding of Superwood, fully impregnated* (NEPD-3703-2649-EN) is used. Wood from Superwood is transported 198 km by lorry to Lilleheden for production of glulam products.

For production of glulam by Lilleheden EPD *Glulam construction wood products of spruce* (MD-22038-EN) is used, where production of raw materials (A1) and transportation (A2) is replaced with LCA results from the Superwood EPD.

Remaining data (in Superwood EPD) is based on Ecoinvent v3.8, allocation, cut-off by classification (Nov 2021) and SimaPro v 9.3.0.3.

The LCA modelling software (in Lilleheden EPD) is Gabi program version 10.6.0.110 and database version 2021.2.

Characterization factors have been used from EN15804:2012 + A2: 2019. Ecoinvent processes are adjusted to improve representativeness (change of electricity mix).

### Allocation:

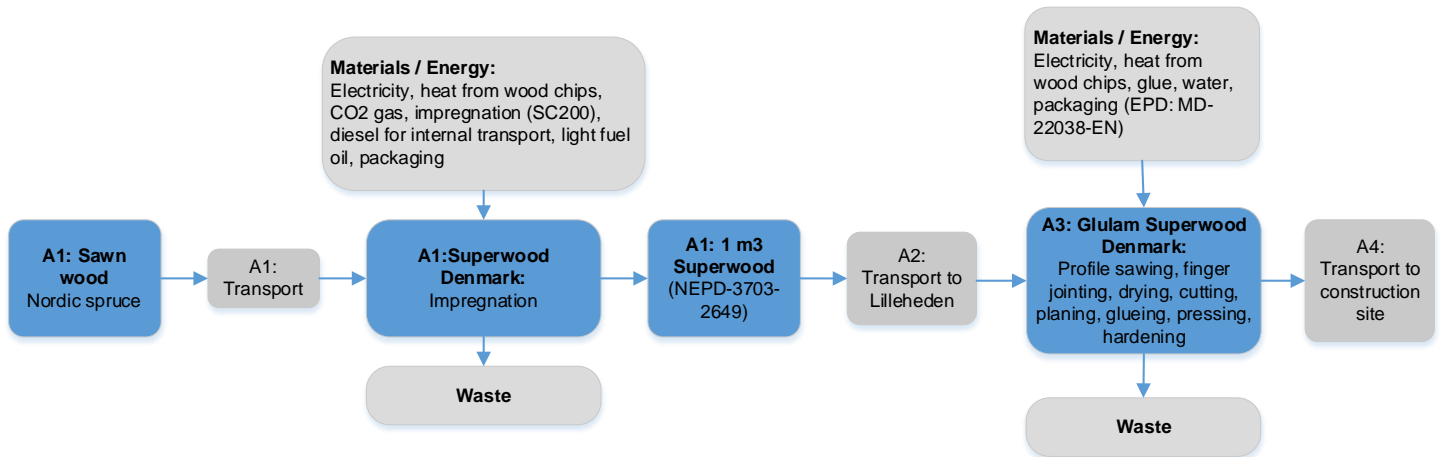
Allocation has been made according to EN15804:2012 + A2: 2019. For sawn wood, economic allocation has been used. For the production of glulam Superwood, all consumption and waste are mass-allocated for the production of impregnated glulam wood product. Primary production of recycled materials is allocated to the main product where the material was used.

### Cut-off criteria:

All major raw materials and all the essential energy is included. The production process for raw materials and energy flows that are included with very small amounts (<1%) are not included. This cut-off rule does not apply for hazardous materials or substances.

### System boundary:

Flow sheet for manufacturing (A1-A3) and transport (A4) of glulam, made of fully impregnated spruce by Superwood, is shown below.



### Calculation of biogenic carbon content:

Sequestration and emissions of biogenic carbon is calculated according to NS-EN 16485: 2014. This approach is based on the modularity principle of EN 15804: emissions should be counted in the module in which it actually occurs. The calculation of biogenic carbon content and conversion to carbon dioxide is done according to the NS-EN 16449: 2014. The contribution to GWP from biogenic carbon is shown for each module under *core environmental impact indicators GWP-biogenic*.

370 kg / m<sup>3</sup> dry weight for Superwood has a carbon content converted to carbon dioxide of 678 kg CO<sub>2</sub> per m<sup>3</sup> wood. The wood is from sustainable forestry and is PEFC certified.

## LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD. All numbers are pr m<sup>3</sup> glulam Superwood.

### Transport from production place to assembly/user (A4)

All production normally takes place directly from Hirtshals to construction site or via retail. It is considered a scenario of 200 km on a truck > 32 t. The A4 distance is calculated as average distance for the Danish market. Additional distances estimated for other markets are given in the table below.

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance KM	Fuel/Energy consumption	value (l/t)
Truck	53%	Lorry, >32t, EURO 6	200	0,017 l/tkm	3,4 l/t

Type	Distance truck	Distance boat	A4, GWP fossil, kg CO <sub>2</sub> -eq/m <sup>3</sup>
Denmark	200	0	6,29
Norway (Oslo)	340	160	11,3
Sweeden (Örebro)	590	160	19,1
Germany (Berlin)	500	0	15,7

### Assembly (A5)

It is assumed 5% spill at installation and 1 MJ/m<sup>3</sup> energy consumption at construction site. Waste treatment of the packaging is included in A5.

	Unit	Value
Auxiliary (paint)	Kg	0
Water consumption	m <sup>3</sup>	0
Electricity consumption	kWh	0,278
Other energy carriers	MJ	0
Material loss	Kg	5%
Plastic packaging	Kg	0,94
Dust in the air	kg	0

### End of Life (C1, C3, C4)

The product is without heavy metals. The waste processing is assumed as wood waste treated with incineration with energy recovery.

Waste scenario incineration from EPD Glulam construction wood products of spruce (MD-22038-EN).

	Unit	Value
Hazardous waste disposed	Kg	0
Collected as mixed construction waste	Kg	445,7
Reuse	Kg	0
Recycling	Kg	0
Energy recovery	Kg	445,7
To landfill	Kg	0

### Transport to waste processing (C2)

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance km	Fuel consumption	Value (l/t)
Truck	27t payload capacity	Truck-trailer, Euro 5, 34 - 40t gross weight	100	N/A	N/A

Waste scenario incineration from EPD Glulam construction wood products of spruce (MD-22038-EN).

### Benefits and loads beyond the system boundaries (D)

The benefits of exported energy from energy recovery in a treatment facility is calculated with substitution of Norwegian electricity market mix and Norwegian district heating mix (SSB 2020). Conversion factors for efficiencies and losses from waste to delivered energy are included.

	Unit	Value
Substitution of electrical energy	MJ	172
Substitution of thermal energy	MJ	5 297
Substitution of raw materials	kg	0

## LCA: Results

For the manufacturing of Superwood 100% renewable electricity from Danish wind power is used in calculations (Guarantee of Origin certificates). LCA results (GWP) calculated without the use of Guarantee of Origin is provided under *Additional Norwegian requirements*.

System boundaries (X=included, MND= module not declared, MNR=module not relevant)

Product stage			Assembly stage		Use stage								End of life stage				Benefits & loads beyond system boundary
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X	

### Core environmental impact indicators

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	-4,22E+02	6,31E+00	1,44E+01	0,0E+00	2,57E+00	6,91E+02	0,0E+00	-5,09E+01
GWP-fossil	kg CO2 eq.	2,46E+02	6,29E+00	1,39E+01	0,0E+00	2,56E+00	1,24E+01	0,0E+00	-3,21E+01
GWP-biogenic	kg CO2 eq.	-6,70E+02	1,71E-02	4,32E-01	0,0E+00	2,72E-02	6,78E+02	0,0E+00	-1,87E+01
GWP-LULUC	kg CO2 eq.	1,86E+00	2,78E-03	9,49E-02	0,0E+00	2,09E-02	1,04E-02	0,0E+00	-1,16E-01
ODP	kg CFC11 eq.	8,74E-06	1,51E-06	5,29E-07	0,0E+00	3,26E-16	1,08E-13	0,0E+00	-3,32E-06
AP	mol H <sup>+</sup> eq.	1,49E+00	2,13E-02	9,08E-02	0,0E+00	8,22E-03	1,41E-01	0,0E+00	-2,94E-01
EP-freshwater	kg P eq.	7,45E-02	4,76E-04	3,95E-03	0,0E+00	7,58E-06	2,29E-05	0,0E+00	-9,36E-03
EP-marine	kg N eq.	4,66E-01	5,06E-03	2,91E-02	0,0E+00	3,79E-03	3,55E-02	0,0E+00	-1,06E-01
EP-terrestrial	mol N eq.	5,05E+00	5,53E-02	3,26E-01	0,0E+00	4,24E-02	6,06E-01	0,0E+00	-1,19E+00
POCP	kg NMVO C eq.	1,78E+00	2,17E-02	1,06E-01	0,0E+00	7,40E-03	9,42E-02	0,0E+00	-3,08E-01
ADP-M&M	kg Sb eq.	2,48E-03	1,79E-05	1,28E-04	0,0E+00	1,94E-07	1,68E-06	0,0E+00	-8,85E-04
ADP-fossil	MJ	3,36E+03	1,00E+02	1,89E+02	0,0E+00	3,40E+01	1,56E+02	0,0E+00	-4,79E+02
WDP	m <sup>3</sup>	7,68E+01	4,08E-01	7,76E+00	0,0E+00	2,22E-02	7,66E+01	0,0E+00	-1,16E+01

**GWP-total:** Global Warming Potential; **GWP-fossil:** Global Warming Potential fossil fuels; **GWP-biogenic:** Global Warming Potential biogenic; **GWP-LULUC:** Global Warming Potential land use and land use change;



**ODP:** Depletion potential of the stratospheric ozone layer; **AP:** Acidification potential, Accumulated Exceedance; **EP-freshwater:** Eutrophication potential, fraction of nutrients reaching freshwater end compartment; See “additional Norwegian requirements” for indicator given as PO4 eq. **EP-marine:** Eutrophication potential, fraction of nutrients reaching freshwater end compartment; **EP-terrestrial:** Eutrophication potential, Accumulated Exceedance; **POCP:** Formation potential of tropospheric ozone; **ADP-M&M:** Abiotic depletion potential for non-fossil resources (minerals and metals); **ADP-fossil:** Abiotic depletion potential for fossil resources; **WDP:** Water deprivation potential, deprivation weighted water consumption

### Additional environmental impact indicators

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PM	Disease incidence	5,91E-05	6,48E-07	3,11E-06	0,00E+00	4,44E-08	9,42E-07	0,00E+00	-1,97E-05
IRP	kBq U235 eq.	2,30E+01	5,21E-01	1,23E+00	0,00E+00	5,89E-03	3,60E-01	0,00E+00	-8,49E+00
ETP-fw	CTUe	2,47E+03	8,42E+01	1,37E+02	0,00E+00	2,46E+01	3,65E+01	0,00E+00	-2,49E+03
HTP-c	CTUh	8,37E-07	2,53E-09	1,27E-07	0,00E+00	4,95E-10	6,01E-09	0,00E+00	-5,42E-08
HTP-nc	CTUh	8,52E-06	9,87E-08	4,75E-07	0,00E+00	2,92E-08	3,59E-07	0,00E+00	-1,80E-06
SQP	Dimensionless	1,27E+05	1,38E+02	6,38E+03	0,00E+00	1,17E+01	6,70E+01	0,00E+00	-8,25E+03

**PM:** Particulate matter emissions; **IRP:** Ionising radiation, human health; **ETP-fw:** Ecotoxicity (freshwater); **ETP-c:** Human toxicity, cancer effects; **HTP-nc:** Human toxicity, non-cancer effects; **SQP:** Land use related impacts / soil quality

### Classification of disclaimers to the declaration of core and additional environmental impact indicators

ILCD classification	Indicator	Disclaimer
ILCD type / level 1	Global warming potential (GWP)	None
	Depletion potential of the stratospheric ozone layer (ODP)	None
	Potential incidence of disease due to PM emissions (PM)	None
	Acidification potential, Accumulated Exceedance (AP)	None
	Eutrophication potential, Fraction of nutrients reaching freshwater end compartment (EP-freshwater)	None
ILCD type / level 2	Eutrophication potential, Fraction of nutrients reaching marine end compartment (EP-marine)	None
	Eutrophication potential, Accumulated Exceedance (EP-terrestrial)	None
	Formation potential of tropospheric ozone (POCP)	None
	Potential Human exposure efficiency relative to U235 (IRP)	1
ILCD type / level 3	Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)	2
	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	2
	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	2
	Potential Comparative Toxic Unit for humans (HTP-c)	2
	Potential Comparative Toxic Unit for humans (HTP-nc)	2



Potential Soil quality index (SQP)	2
<p><b>Disclaimer 1</b> – This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.</p>	
<p><b>Disclaimer 2</b> – The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator</p>	

## Resource use

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
RPEE	MJ	2,55E+04	1,51E+00	1,28E+03	0,00E+00	1,90E+00	5,96E+01	0,00E+00	-3,33E+03
RPEM	MJ	9,25E+03	0,00E+00	9,71E+01	0,00E+00	0,00E+00	-7,31E+03	0,00E+00	0,00E+00
TPE	MJ	2,55E+04	1,51E+00	9,15E+02	0,00E+00	1,90E+00	-7,25E+03	0,00E+00	-3,33E+03
NRPE	MJ	3,37E+03	1,00E+02	1,89E+02	0,00E+00	3,40E+01	1,56E+02	0,00E+00	-4,79E+02
NRPM	MJ	1,82E+03	0,00E+00	9,12E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
TRPE	MJ	3,37E+03	1,00E+02	1,89E+02	0,00E+00	3,40E+01	1,56E+02	0,00E+00	-4,79E+02
SM	kg	7,18E-02	0,00E+00	3,59E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	8,40E+02	0,00E+00	4,20E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
W	m <sup>3</sup>	2,62E+00	1,33E-02	2,34E-01	0,00E+00	2,17E-03	1,80E+00	0,00E+00	-1,17E+01

*RPEE Renewable primary energy resources used as energy carrier; RPEM Renewable primary energy resources used as raw materials; TPE Total use of renewable primary energy resources; NRPE Non renewable primary energy resources used as energy carrier; NRPM Non renewable primary energy resources used as materials; TRPE Total use of non renewable primary energy resources; SM Use of secondary materials; RSF Use of renewable secondary fuels; NRSF Use of non renewable secondary fuels; W Use of net fresh water*

## End of life - Waste

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HW	KG	1,22E+00	6,38E-03	1,81E-01	0,00E+00	1,71E-09	6,36E-08	0,00E+00	-2,93E-01
NHW	KG	9,07E+01	1,15E+01	5,97E+00	0,00E+00	5,05E-03	1,01E+01	0,00E+00	-1,36E+01
RW	KG	2,91E-02	6,71E-04	1,67E-03	0,00E+00	4,12E-05	3,44E-03	0,00E+00	-2,56E-03

*HW Hazardous waste disposed; NHW Non hazardous waste disposed; RW Radioactive waste disposed*

## End of life – output flow

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
CR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MR	kg	1,05E-01	0,00E+00	9,45E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	4,33E+01	0,00E+00	0,00E+00	4,30E+02	0,00E+00	0,00E+00
EEE	MJ	1,48E-01	0,00E+00	7,38E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ETE	MJ	1,26E+00	0,00E+00	6,29E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

*CR Components for reuse; MR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exported thermal energy*

Reading example:  $9,0 \text{ E-03} = 9,0 * 10^{-3} = 0,009$

### Information describing the biogenic carbon content at the factory gate

Biogenic carbon content	Unit	Value
Biogenic carbon content in product	kg C	185
Biogenic carbon content in the accompanying packaging	kg C	0

1 kg biogenic carbon is equivalent to 44/12 kg of CO<sub>2</sub>.

## Additional Norwegian requirements

### Location based electricity mix from the use of electricity in manufacturing

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process.

National electricity grid	Data source	Foreground / core [kWh]	GWP <sub>fossil</sub> [kg CO <sub>2</sub> -eq/kWh]	SUM kg CO <sub>2</sub> -eq]
Electricity, low voltage {DK}   market for   Cut-off, U	Ecoinvent	302,7 kWh/m <sup>3</sup>	0,246	74,5 kg CO <sub>2</sub>

Additional GWP results calculations using the physical national electricity grid mix (energy sources without a Guarantee of Origin)

Indicator	Unit	A1-A3
GWP-total	kg CO <sub>2</sub> eq.	-4,00E+02
GWP-fossil	kg CO <sub>2</sub> eq.	2,68E+02
GWP-biogenic	kg CO <sub>2</sub> eq.	-6,70E+02
GWP-LULUC	kg CO <sub>2</sub> eq.	1,86E+00

### Guarantees of origin from the use of electricity in the manufacturing phase

For the manufacturing process at Superwood, 100% renewable electricity from Danish wind power is used in calculations. The guarantee of origin utilized in this EPD is provided by Miljøvenlig EI, Energi Danmark. Guarantee of Origin is valid throughout 2024 and will be updated throughout the validity period of the EPD. Documentation on certificate is provided upon request to Superwood A/S.

The residual mix is calculated using the following methodology: AIB 2022

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) for wind power electricity production of applied electricity for the manufacturing process.

For the manufacturing process of Lilleheden Danish residual mix is used.

Electricity source	Foreground / core [kWh]	GWP <sub>fossil</sub> [kg CO <sub>2</sub> -eq/kWh]	SUM kg CO <sub>2</sub> -eq]
Guarantee of origin electricity used in the foreground (Superwood A/S)	210,0 kWh/m <sup>3</sup>	0,022	4,77
Residual mix electricity used in the foreground (Lilleheden A/S)	85,7 kWh/m <sup>3</sup>	0,557	47,7

### Additional environmental impact indicators required in NPCR Part A for construction products

In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-IOBC	kg CO2 eq.	2,56E+02	6,31E+00	1,44E+01	0,0E+00	2,57E+00	1,30E+01	0,0E+00	-5,09E+01

**GWP-IOBC** Global warming potential calculated according to the principle of instantaneous oxidation

### Hazardous substances

The declaration is based upon reference to threshold values and/or test results and/or material safety data sheets provided to EPD verifiers. Documentation available upon request to EPD owner.

- The product contains no substances given by the REACH Candidate list or the Norwegian priority list.
- The product contains substances given by the REACH Candidate list or the Norwegian priority list that are less than 0,1 % by weight.
- The product contain dangerous substances, more then 0,1% by weight, given by the REACH Candidate List or the Norwegian Priority list, see table.
- The product contains no substances given by the REACH Candidate list or the Norwegian priority list. The product is classified as hazardous waste (Avfallsforkiften, Annex III), see table.

Name	CAS no.	Amount

### Indoor environment





Superwood is intended for external use and will not affect indoor environment.

### Carbon footprint

While a carbon footprint analysis has not been conducted for the product separately, the results section does include an evaluation of Global Warming Potential (GWP) with such an analysis. The GWP total results presented in this EPD document represents the carbon footprint of the product studied.

## Bibliography

ISO 14025:2010	Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ISO 14044:2006	Environmental management - LCA - Requirements and guidelines
EN 15804:2012+A2:2019	Sustainability of construction works - EPD- Core rules for the product category of construction products
ISO 21930:2007	Sustainability in building construction - EPD of building products
Andvik Dahlstrøm, Oddbjørn	LCA-report for Superwood A/S. LCA-report nr 632284-26 EPD Superwood from Asplan Viak AS, Sandvika, Norway, 2024
EPD-Norge 2021	NPCR Part A:2021 Construction products and services Ver 2
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SSB (2020) Table 04727	District Heating Balance (GWh)
SSB (2020) Table 04730	Consumption of fuel for gross production of district heating, by source of energy
SSB (2020) Table 09469	Net production of district heating, by heating system
AIB 2022	Association of Issuing Bodies IVZW, 2022

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