epd-norway
Global Program Operator

ECO PLATFORM EPD VERIFIED

Environmental Product Declaration

In accordance with ISO 14025 and EN 15804 +A2

The Norwegian EPD Foundation

Owner of the declaration:
SCA Wood Scandinavia AB

Program holder and publisher:
The Norwegian EPD foundation

Declaration number:
NEPD-5772-5059-EN

Registration Number:
NEPD-5772-5059-EN

Issue date: 11.01.2024
Valid to: 11.01.2029

Cupper impregnated wood from pine, NTR AB

SCA Wood Scandinavia AB

851 88 Sundsvall

Sweden

General information

Product:
SCA Cupper impregnated wood; NTR AB

Program Operator:
The Norwegian EPD Foundation
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Declaration number:
NEPD-5772-5059-EN

This declaration is based on Product Category Rules:
EN 15804 A2 (Core PCR)
NPCR 015 v 3.0
EN 16485

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 evidence.

Declared unit:
1 m^3

Declared unit with option:
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Functional unit:
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Verification:
Independent verification of the declaration and data, according to ISO14025:2010

internal ☐ External ☒

Martin Erlandsson
Independent verifier approved by EPD Norway

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Place of production:
This EPD is valid for SCA Bollsta saw mill located in Bollstabruk, Sweden

Management system:
ISO 14001:
FSC certificate: BV-COC-023232
PEFC cetificate: BV-PEFC-COC-008613

Organisation no:
556302-0667

Issue date:
11.01.2024

Valid to:
11.01.2029

Year of study:
2019

Comparability:
EPDs for other construction products may not be comparable if not in compliance with EN 15804 and EN 16485 and seen in a building context.

The EPD has been worked out by:
Eva Lindström

Approved
Håkan Hauan. Manager of EPD Norway

Product

Product description:

Impregnated planed wood of pine of NTR class AB for use above ground. The product is manufactured in Bollsta saw mill, Sweden. The product is pressure impregnated with cupperbased impregnation liquid..

Product specification:

The products are used for various outdoor applications such as decking, cladding, railing and othter structural elements.

Densities of wood products varies depending on raw material species, mostiure content etc. The calculations in for this EPD is based on a density of 560 kg/m^3 and an average moisture content of 22% (moisture ratio 29%). This declaration represents an average of impregnation class A and AB. All dimenstions is represented by 1 m^3 in this LCA. A recalculation from m^3 to m^2 can be made with a factor 0,028 m^3/m^2 for a standard diemension of 28 mm x 120 mm.

Materials	kg	%
Wood dry weight, pine	435	78%
Water content	124	22%
Impregnation agent (cupper compounds, dry weight)*	0,7	0,1
Total product	**560**	**100**
Plastic packaging	0,1	
Wooden packaging	4,7	
Total with packaging	**565**	

*based on data from supplier EPD and an average use of 4.3 kg impregnation liquid/m^3

Technical data:

Impregnated wood from SCA is delivered in various dimensions depending on market requirements and is produced according to NTR – The wood durability quality system. The average dry mass of Swedish pine is 435 kg/m^3 which is used for the calculation of biogenic carbon.

Market:

Main markets are Sweden and Norway.

Reference service life, product:

The service life is typically set to 30 years when used as decking. For other applications (e.g. cladding) the service life is significantly higher. The service life depends on climate and other external influences. In this analysis the service life is not taken into account as the use phase is not declared.

Reference service life, building:

Not included.

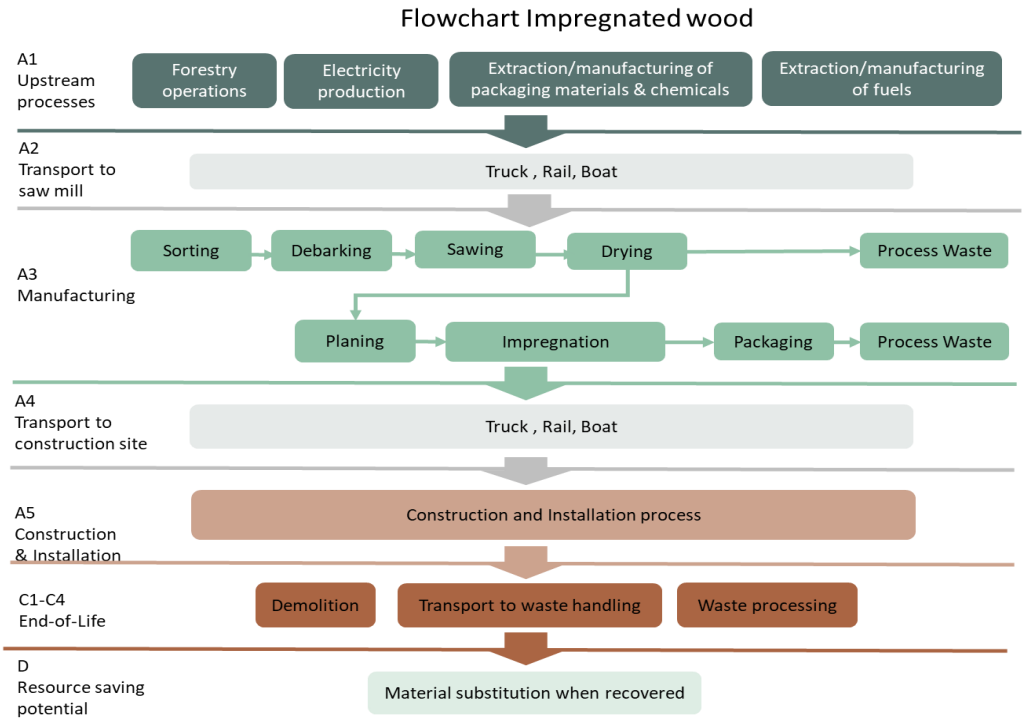
LCA: Calculation rules

Declared unit:

1 m^3

System boundary:

A flowchart showing the system boundary for planed and impregnated wood is shown below.



Data quality:

Primary production data is specific data based on actual consumption and emission data for the sawing, planing and impregnation processes collected from SCAs production site and represent production year 2019. Data for forestry are based on EcoInvent 3.6 data but modified with updated CO_2 data for Swedish Forestry publihsed by Ågren et. al (2021). Data for the impregnation chemical is supplier specific and taken from a published EPD.

All other upstream data and data for treatment of production waste is based on data from EcoInvent 3.6 and GaBi 10.0.0.7

GaBi Software System and databases for lifecycle engineering version 10.0.0.7 from Sphera Solutions has been utilised for modelling and calculations.

Allocation:

Environmental impact from forestry operations is allocated to roundwood only and nothin to forestry residues such as branches and tops. The prodcution of sawn timber results in a number of valuable by-products i.e. raw wood chips for cellulose pulp production as well as saw dust, bark and dry wood chips sold externally for use as biofuels.

Allocation of the environmental impact from the saw mill and planing processes has been allocated between sawn timber and by products based on economic revenue in accordance with EN 15804. The environmental impact from forestry operation including trnsport of round wood to the saw mill has been allocated between sawn timber and saw mill by-products based on physical relationship between them i.e. on a dry weight basis in accordance with EN 15804 and EN 16485. No allocation to by-products from the plaining process has been made. Wood residues from the impregnation process is handled as waste.

Cut-off criteria:

All major raw materials and energy flows are included. The production process for raw materials and energy flows that represent a very small amount (<1%) is not inlcuded. This cut-off rule does not apply to hazardous materials and dangerous substances.

Calculation of biogenic carbon content and stored carbon dioxide

Sequestration and emissions of biogeninc carbon dioxide are calculated according to EN 16485:2014 where the net biogenic carbon is zero in lifecycle A-C i.e. carbon dioxide neutral. Carbon dioxide neutrality is assumed for the wooden packaging used.

The content of biogenic carbon stored in the product is calculated and reported in accordance with EN 15804 and EN 16485 using a dry density of 435 kg/m^3 for planed and impregnated wood. This gives biogenic carbon content of **218 kg C/m^3** which correcpomds to a storage of **798 kg CO_2/m^3 .**

LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

Transport from production place to assembly/user (A4)

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance KM	Fuel/Energy consumption	value (l/t)
Truck	45% (90%+0%)	TT/AT 28-34 +34-40t	300	0,027 l/tonkm	8,2

The calculation is made with transport distance of 100 km which shall be used as a factor to estimate the impact for the actual distance to a specific location. The truck for delivering wood products to the contstructin is assumed to return empty.

Assembly (A5)

	Unit	Value
Electricity consumption	kWh	3,5E-02
Other energy carriers (diesel)	kWh	3,2E-01
Material loss (5%)	Kg	2.8E+01

Assumption used is 4 minutes of work with a frontloader at the construction site (Erlandsson 2013) and an average lift with electricity driven crane (Lundström 2016). A material loss of 5% at the construction site is assumed.

Use (B1)

	Unit	Value
MND		

Maintenance (B2)/Repair (B3)

	Unit	Value
MND		

Replacement (B4)/Refurbishment (B5)

	Unit	Value
MND		

Operational energy (B6) and water consumption (B7)

	Unit	Value
MND		

End of Life (C1, C3, C4)

	Unit	Value
C1: Demolition machine (diesel)	kWh	0,62
C3: Wood chipping (diesel)	kWh	3,4
C3: Reuse	kg	0
C3: Recycling	kg	0
C3: Energy recovery	kg	560
C4: To landfill	kg	0

Energy for demolition (C1) and chipping of discarded wood (C3) before energy recovery (Erlandsson 2015). 100% energy recovery is assumed at end-of-life which is reached in C3. Impregnated wood can be utilized for energy recovery in incineration facilties having permits to incinerate treated wood.

Transport to waste processing (C2)

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance KM	Fuel/Energy consumption l/tonkm	value (l/t)
Truck	45% (90%+ 0%)	TT/AT 14-30 + 20-28t	35	0,037	1,3

The calculation is made assuming transport to local waste treatment site from where it is sold as fuel for energy generation. The truck for transporting waste is assumed to return empty.

Benefits and loads beyond the system boundaries (D)

	Unit	Value
Chipped impregnated wood that substitute fuel in district heating facilities	kg DM	435
Chipped impregnated wood that substitute average fuel in district heating facilities	MJ	-8352

The discarded products are chipped and assumed to be used as fuel in district heating facilities replacing the average energy mix. 100% energy reovery is assumed. If the recovery rate is lower than 100% , the results in C and D must be adjusted for this by multiplying them with the actual recovery rate. The energy content of the impregnation chemicals is not included in this module as this constitutes less than 0,5% of the total energy.

Additional technical information

No additional information is given

LCA: Results

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

Product stage			Assembly stage		Use stage							End of life stage				Benefits & loads beoyond 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
SE	SE	SE	SE	SE								SE	SE	SE	SE	SE

Core environmental impact indicators according to EN 15408 +A2

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	-7,78E+02	9,86E+00	3,03E+00	1,33E-01	1,57E+00	8,27E+02	0,00E+00	6,20E+02
GWP-fossil	kg CO2 eq.	4,74E+01	9,77E+00	2,93E+00	1,32E-01	1,56E+00	7,17E-01	0,00E+00	-2,06E+02
GWP-biogenic	kg CO2 eq.	-8,26E+02	3,04E-02	6,92E-02	4,10E-04	4,85E-03	8,26E+02	0,00E+00	8,26E+02
GWP-LULUC	kg CO2 eq.	6,47E-01	5,46E-08	3,55E-02	7,37E-04	8,71E-03	4,01E-03	0,00E+00	-3,62E-03
GWP IOBC	kg CO2 eq.	5,06E+01	9,86E+00	3,10E+00	1,33E-01	1,57E+00	7,23E+01	0,00E+00	-1,85E+02
ODP	kg CFC11 eq.	7,81E-06	2,20E-07	4,03E-07	2,97E-09	3,52E-08	1,62E-08	0,00E+00	-1,32E-06
AP	mol H^+ eq.	5,29E-01	1,10E-01	3,27E-02	1,48E-03	1,75E-02	8,07E-03	0,00E+00	-4,41E-01
EP-freshwater	kg P eq.	7,66E-03	5,05E-04	4,12E-04	6,82E-06	8,06E-05	3,71E-05	0,00E+00	-4,04E-04
EP-marine	kg N eq.	1,60E-01	5,93E-02	1,14E-02	7,99E-04	9,45E-03	4,35E-03	0,00E+00	-6,77E-03
EP-terrestial	mol N eq.	1,59E+00	5,63E-01	1,11E-01	7,59E-03	8,98E-02	4,13E-02	0,00E+00	8,29E-02
POCP	kg NMVOC eq.	4,62E-01	7,69E-02	2,75E-02	1,04E-03	1,23E-02	5,64E-03	0,00E+00	-4,42E-02
ADP-M&M[1]	kg Sb eq.	1,37E-03	5,27E-06	6,90E-05	7,10E-08	8,40E-07	3,86E-07	0,00E+00	1,32E-05
ADP-fossil[1]	MJ	1,04E+03	1,49E+02	6,04E+01	2,01E+00	2,37E+01	1,09E+01	0,00E+00	-1,93E+03
WDP[1]	m^3	1,82E+02	1,75E+02	1,91E+01	1,36E-03	2,80E+01	1,29E+01	0,00E+00	-3,84E+03

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*

[1] **Disclaimer:** 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.

Additional environmental impact indicators[2]

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PM	Disease incidence	5,12E-06	5,90E-07	2,89E-07	7,96E-09	9,41E-08	4,33E-08	0,00E+00	1,74E-02
IRP[1]	kBq U235 eq.	1,72E+01	3,35E-01	8,87E-01	4,52E-03	5,35E-02	2,46E-02	0,00E+00	-3,08E+01
ETP-fw[2]	CTUe	3,09E+03	2,60E+02	1,69E+02	3,51E+00	4,15E+01	1,91E+01	0,00E+00	-6,78E+02
HTP-c[2]	CTUh	7,90E-08	5,20E-09	4,25E-09	7,02E-11	8,30E-10	3,82E-10	0,00E+00	-1,35E-08
HTP-nc[2]	CTUh	4,14E-06	3,18E-07	2,25E-07	4,29E-09	5,07E-08	2,33E-08	0,00E+00	-2,46E-06
SQP[2]	Dimensionless	1,15E+05	1,90E+02	5,75E+03	2,57E-00	3,04E+01	1,40E+01	0,00E+00	-3,92E+02

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.*

Environmental impact indicators according to EN 15408 +A1

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	-7,80E+02	9,60E+00	2,92E+00	1,30E-01	1,53E+00	8,29E+02	0,00E+00	6,20E+02
GWP IOBC	kg CO2 eq.	4,74E+01	9,60E+00	2,92E+00	1,30E-01	1,53E+00	7,04E-01	0,00E+00	-1,85E+02
ODP	kg CFC11 eq.	6,01E-06	1,99E-07	3,12E-07	2,68E-09	3,17E-08	1,46E-08	0,00E+00	-1,08E-06
AP	kg SO2 eq.	4,24E-01	7,08E-02	2,52E-02	9,55E-04	1,13E-02	5,19E-03	0,00E+00	-4,14E-01
EP	kg PO4 eq.	1,57E-01	2,74E-02	9,42E-03	3,70E-04	4,37E-03	2,01E-03	0,00E+00	-1,05E-02
POCP	kg C2H2 eq.	3,71E-02	-1,97E-02	7,27E-04	-2,66E-04	-3,15E-03	-1,45E-03	0,00E+00	1,11E-02
ADPM	kg Sb eq.	1,37E-03	5,27E-06	6,90E-06	7,11E-08	8,41E-07	3,87E-07	0,00E+00	-1,64E-05
ADPE	MJ	5,62E+02	1,45E+02	3,64E+01	1,95E+00	2,31E+01	1,06E+01	0,00E+00	-1,31E+03

GWP-total: *Global Warming Potential;* ***GWP-fossil:*** *Global Warming Potential fossil fuels;* ***GWP-biogenic:*** *Global Warming Potential biogenic;* ***ODP:*** *Depletion potential of the stratospheric ozone layer;* ***AP:*** *Acidification potential;* ***EP:*** *Eutrophication potential,* ***POCP****: Formation potential of tropospheric ozone;* ***ADPM****: Abiotic depletion potential for non-fossil resources;* ***ADPE:*** *Abiotic depletion potential for fossil resources.*

Resource use according to EN 15804 A1 + A2

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
RPEE	MJ	8,81E+03	5,11E+01	4,44E+02	6,90E-01	8,16E+00	3,75E+00	0,00E+00	7,37E+03
RPEM	MJ	8,35E+03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-8,35E+03	0,00E+00	0,00E+00
TPE	MJ	1,72E+04	5,11E+01	4,44E+02	6,90E-01	8,16E+00	8,36E+03	0,00E+00	7,37E+03
NRPE	MJ	1,19E+03	1,49E+01	6,81E+01	2,01E+00	2,38E+01	1,09E+01	0,00E+00	-1,30E+03
NRPM	MJ	2,37E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
TRPE	MJ	1,21E+03	1,49E+01	6,81E+01	2,01E+00	2,38E+01	1,09E+01	0,00E+00	-1,30E+03
SM	kg	-	-	-	-	-	-	-	-
RSF	MJ	-	-	-	-	-	-	-	-
NRSF	MJ	-	-	-	-	-	-	-	-5,24E+03
W	m³	5,71E+00	4,09E+00	5,19E-01	5,51E-02	6,25E-01	3,00E-01	0,00E+00	-1,47E+03

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.

[2] **Disclaimer:** 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.

End of life – Waste according to EN 15804 A1 + A2

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HW		8,89E-01	6,28E-10	4,45E-02	8,,47E-12	1,00E-10	4,61E-11	0,00E+00	-3,61E-08
NHW	KG	1,17E+02	1,88E-02	5,83E+00	2,54E-04	3,00E-03	1,38E-03	0,00E+00	-7,32E-01
RW	KG	1,25E-01	1,62E-04	6,29E-03	2,18E-06	2,58E-05	1,18E-05	0,00E+00	-2,46E-01

HW Hazardous waste disposed; NHW Non-hazardous waste disposed; RW Radioactive waste disposed.

End of life – output flow according to EN 15804 A1 + A2

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	7,24E-01	0,00E+00	1,46E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	9,69E-01	0,00E+00	3,27E+01	0,00E+00	0,00E+00	5,60E+02	0,00E+00	0,00E+00
EEE	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
ETE	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

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 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	218
Biogenic carbon content in the accompanying packaging	kg C	0

The content of biogenic carbon stored in the product is calculated and reported in accordance with EN 15804 and EN 16485. Biogenic carbon and energy stored in the wooden packaging is less than 5% and is balanced out directly in accordance with EN 15804.

Additional Norwegian requirements

Greenhous gas emission from the use of electricity in the manufacturing phase

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 (A3).

National electricity grid	Unit	Value
Swedish electricity mix 2020 (Datasource: GaBi Database v 10.0.0.7)	kg CO2 -eq/kWh	0,035

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 contains 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 (Avfallsforskriften, Annex III), see table.

Indoor environment

Not relevant since the product is intended for outdoor use.

Carbon footprint

The climate impact from the products including direct and indirect emissions of fossil CO_2 as well as sequestration of biogenic in product for 1 m^3 of impregnated wood is calculated and reported below

Indicator	Unit	A1-A3
GWP GHG	kg CO_2 eq.	5,06E+01
GWP biogenic sequestrated in product	kg CO_2 eq.	-7,98E+02
GWP tot	kg CO_2 eq.	-7,47E+02

Bibliography

ISO 14025:2010	Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ISO 14044:2006	Environmental management - Life cycle assessment - Requirements and guidelines
EN 15804:2012+A2:2019	Sustainability of construction works - Environmental product declaration - Core rules for the product category of construction products.
EN 15804:2012+A1:2013	Sustainability of construction works - Environmental product declaration - Core rules for the product category of construction products.
ISO 21930:2007	Sustainability in building construction - Environmental declaration of building products
NPCR 015 v 3.0	PCR Part B for wood and wood-based products for use in construction
EN 16485	Round and sawn timber – Environmental Product Declarations – Product category rules for wood and wood-based products for use in construction
Ågren et. al	Skogforsk arbetsrapport 1086-2021; datainsamling till underlag för livscykelanalyser (LCA)mav det svenska skogsbruket.
Erlandsson, M.	Miljödata för arbetsfordon IVL dokument BPI 13/1 (2013)
Erlandsson, M.	Klimatpåverkan för byggnader med olika energiprestanda
Lundström, J.	Energy consumption for diffferent frame materials during the production of an apartment building
Wolman GmbH	EPD S-P-05468; Envisonmental Product Declarattion Wolmanit® CX-8WB
Lindström, E.	Supplementary LCA report; Environmental footprints of SCA's solid wood products – A lifecycle analysis of impregnated wood.

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ECO PLATFORM EPD VERIFIED	**ECO Platform**		
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	ECO Portal	web	www.eco-platform.org/epd-data.html

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