GLOBAL TIMBER

EPD Hub

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Dried tropical sawn timber sourced from certified forests in Congo basin.
Global Timber A/S (DK)

EPD HUB, HUB-0367
Publishing date 31 March 2023, last updated date 31 March 2023, valid until 31 March 2028

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Global Timber A/S (DK)
Address	Michael Drewsens Vej 1, 8270 Højbjerg, Aarhus, Denmark.
Contact details	mail@globaltimber.dk
Website	https://europe.globaltimber.net/

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options A4, A5, modules C1-C4, and module D
EPD author	Petra Postolache, Krishnanunni Ravindran
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	S.B, as an authorized verifier acting for EPD Hub Limited

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name	Dried tropical sawn timber sourced from certified forests in Congo basin
Additional labels	-
Product reference	-
Place of production	Aarhus, Denmark
Period for data	2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	0 %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 m3
Declared unit mass	522 kg
GWP-fossil, A1-A3 (kgCO2e)	2,43E2
GWP-total, A1-A3 (kgCO2e)	-6,14E2
Secondary material, inputs (%)	0.361
Secondary material, outputs (%)	83.0
Total energy use, A1-A3 (kWh)	847.0
Total water use, A1-A3 (m3e)	1.11

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Global Timber is the largest stockist of hardwood in Northern Europe. From our warehouse in Aarhus, Denmark, we serve the wood-consuming industry in Scandinavia and large parts of Europe.

PRODUCT DESCRIPTION

Sawn timber is wood that is cut from logs into different thicknesses and widths, as well as crosscut to lengths. Common sawn timber products include solid timber beams and more rectangular timber sections. The tropical-sawn timber originates in the certified sustainable tropical forests of the Congo Basin and is imported into Europe after processing and packaging from selected manufacturers.

Further information can be found at https://europe.globaltimber.net/.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	-	-
Minerals	-	-
Fossil materials	-	-
Bio-based materials	100%	Dried tropical sawn timber sourced from certified forests in the Congo Basin

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	233
Biogenic carbon content in packaging, kg C	1.01

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 m3
Mass per declared unit	522 kg

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
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		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demol.	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

A1-A3 - Wood sourced from certified forests in the Congo basin undergoes debarking, sawing and thermal treatment in selected manufacturing units before being shipped to Denmark as packaged sawn timber. For this stage, private data set provided by the International Tropical Timber Technical Association (ATIBT) was used.
The packaged sawn timber received at a port in Denmark is brought to the Global Timber warehouse by road. It is then repackaged after removing all the incoming packaging (PET and metal tapes) with new PET tapes containing our company logo and joists.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

A4 - The average downstream distance to customers in Denmark is 200 km by road.

A5 - As dried tropical-sawn timber wood finds application in a wide range of products and services, only the electricity consumed by electric tools used during the installation was considered.

PRODUCT USE AND MAINTENANCE (B1-B7)

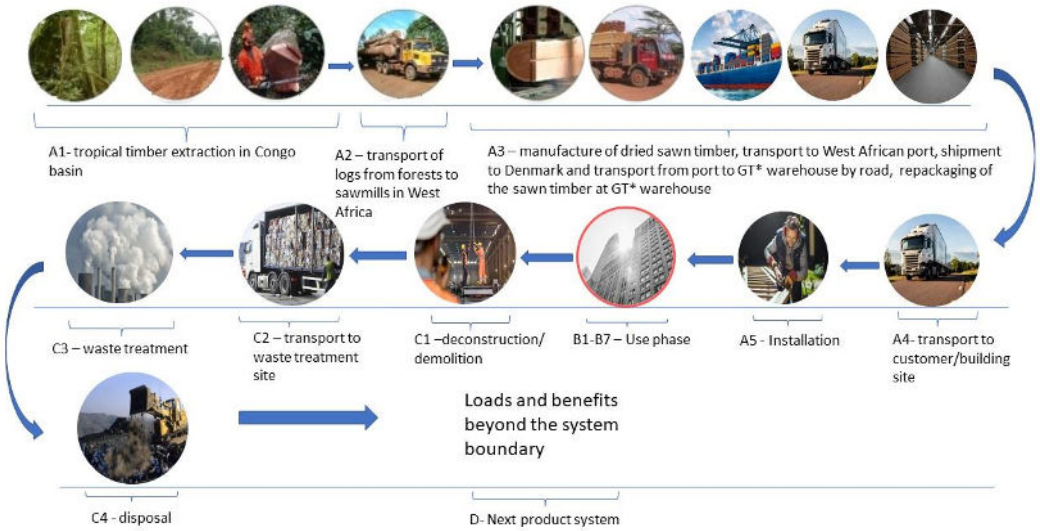
This EPD does not cover the use phase.
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

C1 - The deconstruction of wood was assumed to be done manually and therefore consumes zero energy.
C2- The distance to the nearest waste treatment unit was assumed as 50 km.
C3 - Based on the Danish Environmental Agency data on waste treatment in Denmark. We assume that all our wood waste treatments occur within Denmark.
C4 - Based on the Danish Environmental Agency data on waste treatment in Denmark, we assume 2% of our products end up in landfills.

D - Includes benefits of heat and energy generation from the incineration process and accounts the recycling potential of wood as well. By recycling wood, we save new wood from being burned for energy needs. Similarly, the benefits of recycling PET (packaging material) were also accounted in Module D. We also assume that at the end of life, the recycled wood is ground into mulch and used as mulch in farmlands or home gardens.

MANUFACTURING PROCESS



*Modules B1-B7 – not declared

*GT= Global Timber

LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging materials	Allocated by mass or volume
Ancillary materials	No allocation
Manufacturing energy and waste	No allocation

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	0 %

This EPD is product and factory specific and does not contain average calculations.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	-6,11E2	9,49E-2	-3,18E0	-6,14E2	9,43E0	5,53E0	MND	MND	MND	MND	MND	MND	MND	0E0	2,37E0	8,42E2	1,92E1	0E0
GWP – fossil	kg CO_2e	2,42E2	9,49E-2	5,23E-1	2,43E2	9,51E0	1,75E0	MND	MND	MND	MND	MND	MND	MND	0E0	2,37E0	4,93E0	1,12E-1	-7,2E1
GWP – biogenic	kg CO_2e	-8,54E2	-2,08E-5	-3,71E0	-8,58E2	6,91E-3	3,77E0	MND	MND	MND	MND	MND	MND	MND	0E0	1,72E-3	8,37E2	1,91E1	7,56E1
GWP – LULUC	kg CO_2e	3,52E-1	6,19E-5	1,69E-3	3,54E-1	2,86E-3	2,32E-3	MND	MND	MND	MND	MND	MND	MND	0E0	7,14E-4	8,75E-3	1,16E-4	-1,29E-1
Ozone depletion pot.	kg $CFC_{-11}e$	4,38E-5	1,93E-8	4,47E-8	4,39E-5	2,24E-6	6,18E-8	MND	MND	MND	MND	MND	MND	MND	0E0	5,58E-7	4,09E-7	3,34E-8	-4,94E-6
Acidification potential	mol H^+e	2,9E0	2,86E-3	3,15E-3	2,91E0	4E-2	6,65E-3	MND	MND	MND	MND	MND	MND	MND	0E0	9,96E-3	3,38E-2	9,45E-4	-5,34E-1
EP-freshwater[2)]	kg Pe	2,14E-2	4,55E-7	2,91E-5	2,14E-2	7,74E-5	1,5E-4	MND	MND	MND	MND	MND	MND	MND	0E0	1,93E-5	4,11E-4	2,16E-6	-3,34E-3
EP-marine	kg Ne	1,29E0	7,05E-4	8,22E-4	1,29E0	1,2E-2	1,26E-3	MND	MND	MND	MND	MND	MND	MND	0E0	3E-3	8,88E-3	6,24E-4	-6,2E-2
EP-terrestrial	mol Ne	1,4E1	7,83E-3	9,07E-3	1,41E1	1,33E-1	1,76E-2	MND	MND	MND	MND	MND	MND	MND	0E0	3,32E-2	9,89E-2	3,51E-3	-7,32E-1
POCP ("smog")[3)]	kg NMVOCe	5,44E0	2,04E-3	2,87E-3	5,45E0	4,28E-2	3,77E-3	MND	MND	MND	MND	MND	MND	MND	0E0	1,07E-2	2,48E-2	1,26E-3	-2,02E-1
ADP-minerals & metals[4)]	kg Sbe	7,69E-4	7,96E-7	4,29E-5	8,12E-4	1,62E-4	7,81E-6	MND	MND	MND	MND	MND	MND	MND	0E0	4,05E-5	2,97E-5	3,65E-7	-5,25E-5
ADP-fossil resources	MJ	2,98E3	1,23E0	9,85E0	2,99E3	1,48E2	2,27E1	MND	MND	MND	MND	MND	MND	MND	0E0	3,69E1	8,66E1	2,56E0	-9,26E2
Water use[5)]	m^3e depr.	3,56E1	2,78E-3	2,93E-1	3,59E1	5,5E-1	2,47E-1	MND	MND	MND	MND	MND	MND	MND	0E0	1,37E-1	7,4E-2	1,53E-2	-6,97E0

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy[8)]	MJ	4,61E1	9,06E-3	1,32E1	5,94E1	1,86E0	1,85E1	MND	MND	MND	MND	MND	MND	MND	0E0	4,64E-1	1,31E1	-1,45E2	-2,53E2
Renew. PER as material	MJ	8,49E3	0E0	3,38E1	8,52E3	0E0	-3,38E1	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	-8,32E3	-1,69E2	7,03E3
Total use of renew. PER	MJ	8,53E3	9,06E-3	4,71E1	8,58E3	1,86E0	-1,53E1	MND	MND	MND	MND	MND	MND	MND	0E0	4,64E-1	-8,3E3	-3,15E2	6,78E3
Non-re. PER as energy	MJ	2,98E3	1,23E0	6,62E0	2,99E3	1,48E2	2,27E1	MND	MND	MND	MND	MND	MND	MND	0E0	3,69E1	8,66E1	2,56E0	-9,22E2
Non-re. PER as material	MJ	0E0	0E0	3,23E0	3,23E0	0E0	-3,23E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-1,21E0
Total use of non-re. PER	MJ	2,98E3	1,23E0	9,85E0	2,99E3	1,48E2	1,95E1	MND	MND	MND	MND	MND	MND	MND	0E0	3,69E1	8,66E1	2,56E0	-9,23E2
Secondary materials	kg	1,88E0	0E0	9,83E-4	1,89E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	9,15E-4	-4,33E2
Renew. secondary fuels	MJ	1,39E-2	0E0	0E0	1,39E-2	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	3,51E-5	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

Use of net fresh water	m^3	1,11E0	1,29E-4	2,48E-3	1.11	3,08E-2	5,41E-3	MND	MND	MND	MND	MND	MND	MND	0E0	7,68E-3	4,4E-2	2,74E-3	-1,91E-1

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	8,09E0	1,42E-3	2,73E-2	8,12E0	1,44E-1	1,78E-1	MND	MND	MND	MND	MND	MND	MND	0E0	3,59E-2	0E0	0E0	-5,57E0
Non-hazardous waste	kg	3,25E2	2,87E-2	8,48E-1	3,26E2	1,59E1	7,12E0	MND	MND	MND	MND	MND	MND	MND	0E0	3,97E0	0E0	1,04E1	-1,24E2
Radioactive waste	kg	1,97E-2	8,64E-6	2,22E-5	1,97E-2	1,02E-3	6,74E-5	MND	MND	MND	MND	MND	MND	MND	0E0	2,53E-4	0E0	0E0	-4,94E-3

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	9,39E-2	0E0	0E0	9,39E-2	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	4,33E2	0E0	0E0
Materials for energy rec	kg	4,37E2	0E0	0E0	4,37E2	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	9,85E0	0E0	0E0	9,85E0	0E0	3,26E1	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	9,29E2	0E0	0E0

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO_2e	-6,11E2	9,43E-2	5,02E-1	-6,11E2	9,43E0	1,72E0	MND	MND	MND	MND	MND	MND	MND	0E0	2,35E0	4,84E0	7,83E-1	-7,01E1
Ozone depletion Pot.	kg $CFC_{-11}e$	4,38E-5	1,53E-8	3,81E-8	4,39E-5	1,78E-6	6,4E-8	MND	MND	MND	MND	MND	MND	MND	0E0	4,43E-7	4,5E-7	2,65E-8	-4,79E-6
Acidification	kg SO_2e	2,9E0	2,28E-3	2,31E-3	2,91E0	1,94E-2	5,23E-3	MND	MND	MND	MND	MND	MND	MND	0E0	4,83E-3	2,68E-2	7,16E-4	-4,65E-1
Eutrophication	kg PO_4^3e	2,14E-2	2,55E-4	9,66E-4	2,26E-2	3,91E-3	4,52E-3	MND	MND	MND	MND	MND	MND	MND	0E0	9,75E-4	2,25E-2	2,99E-2	-1,01E-1
POCP (“smog”)	kg C_2H_4e	4,38E-5	5,99E-5	1,54E-4	2,58E-4	1,23E-3	2,13E-4	MND	MND	MND	MND	MND	MND	MND	0E0	3,06E-4	9,22E-4	1,74E-4	-1,91E-2
ADP-elements	kg Sbe	7,69E-4	7,96E-7	4,29E-5	8,12E-4	1,62E-4	7,81E-6	MND	MND	MND	MND	MND	MND	MND	0E0	4,05E-5	2,97E-5	3,65E-7	-5,25E-5
ADP-fossil	MJ	2,98E3	1,23E0	9,85E0	2,99E3	1,48E2	2,27E1	MND	MND	MND	MND	MND	MND	MND	0E0	3,69E1	8,66E1	2,56E0	-9,26E2

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Sergio Ballén, as an authorized verifier acting for EPD Hub Limited
31.03.2023

VERIFIED ISO 14025