

**Environmental
Product
Declaration**

ISO14025+EN15804+A2 Bepalingsmethode
'Milieuprestatie Bouwwerken' versie 1.2-januari 2025

This declaration is for:
CLT (Cross Laminated Timber) by Stora Enso

Provided by:
Stora Enso Oyj



MRPI® registration:

00091.2026.1.0

Program operator:

Stichting MRPI

Publisher:

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www.mrpi.nl

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COMPANY INFORMATION

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MRPI® REGISTRATION

00091.2026.1.0

DATE OF THIS ISSUE

06-10-2026

EXPIRY DATE

06-10-2031

SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Burgh, Fred van der, Agrodome B.V.. The LCA study has been done by Valtonen, Tuovi, Stora Enso Oyj. The certificate is based on a LCA-dossier According to ISO14025+EN15804+A2 Bepalingsmethode 'Milieuprestatie Bouwwerken' versie 1.2-januari 2025. It is verified according to the 'Verification protocol for MRPI LCA project report & EPD 16th of April 2026, V. 5.3'. EPDs of construction products may not be comparable if they do not comply with EN15804+A2.

PROGRAM OPERATOR

Stichting MRPI
Kingsfordweg 151
1043 GR
Amsterdam

PRODUCT

CLT (Cross Laminated Timber) by Stora Enso

DECLARED AND FUNCTIONAL UNIT

Volume (1 m3)

DESCRIPTION OF PRODUCT

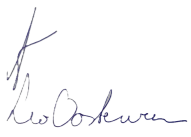
Solid wood construction product consisting of at least three bonded single-layer panels arranged at right angles to each other. Intended for internal and external walls as well as for roofs and floors.

VISUAL PRODUCT



MORE INFORMATION

https://www.storaenso.com/en/products/mass-timber-construction/building-products/clt?utm_campaign=WP%2FFlagship%20brochure%202023&utm_source=brochure&utm_medium=...

Ing. L. L. Oosterveen MSc. MBA Managing Director MRPI	Demonstration of verification
	CEN standard EN15804 serves as the core PCR [1]
	Independent verification of the declaration and data ISO14025+EN15804+A2 Bepalingsmethode 'Milieuprestatie Bouwwerken' versie 1.2-januari 2025 Internal: External: X
	Independent verifier: Burgh, Fred van der, Agrodome B.V..
	
	[1] PCR = Product Category Rules

DETAILED PRODUCT DESCRIPTION

Cross laminated timber (CLT) is a solid wood construction product consisting of at least three bonded single-layer panels arranged at right angles to each other. Sizes of up to 3,45 x 16 metres can be produced. CLT by Stora Enso solid wood panels are made up of several layers and are available in different panel thicknesses. The layers are bonded with carefully selected adhesives that are suitable for their respective purpose. CLT by Stora Enso products are long-lasting and safe to use and recycle. They are continuously tested to ensure that they meet the strictest requirements in terms of ambient air emissions. It is suitable for internal and external walls and for floors and roofs. CLT by Stora Enso is delivered by road to the Netherlands, and according to the Dutch default the reference service life is 75 years.

Component (> 1%)	(kg / %)
Wood	464,1 / 99
Polyurethane (PUR) resin	5,9 / 1,3

Biogenic carbon content	Unit	Amount of uptake per functional unit
Biogenic carbon content in product	Kg C	207,3
Biogenic carbon content in accompanying packaging	Kg C	<0,1
Note that 1 kg of biogenic carbon is equivalent to 44 / 12 kg of CO ₂ .		

SCOPE AND TYPE

Background database: Ecoinvent 3.9.1

Method: Cut-off, EN 15804+A2

Software: Simapro 10.5

Characterization factor: Environmental Footprint (EF) 3.1

CLT by Stora Enso is produced in Bad St. Leonhard (Austria), Ybbs (Austria) and Zdirec (Czech Republic). This EPD covers CLT by Stora Enso marketed in the Netherlands where the end-of-life takes place. The background database used to conduct the LCA study is ecoinvent 3.9.1 (December 2022) and the LCA tool used is SimaPro Desktop 10.5. The EPD type is average.

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport gate to site	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	x	x	x	x	x	x	x	x	x	x	x	x

X = Modules Assessed
ND = Not Declared

Modules declared and geographical scope.

	Product stage			Construction process stage		Use stage							End-of-life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-Landfill-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	EU	EU	AT, CZ	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL

REPRESENTATIVENESS (IF AVERAGE)

Due to the different background profiles for energy in the three CLT producing units, deviations of individual impact indicators can exceed 20% from the weighted average.

The LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks.

ENVIRONMENTAL IMPACT PER FUNCTIONAL UNIT OR DECLARED UNIT (CORE INDICATORS A2)

Unit		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq	-7.20E+02	7.74E00	1.20E+01	-7.00E+02	3.00E+01	2.92E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.92E+00	7.63E+00	6.85E+02	7.40E+01	-2.79E+01
GWP-fossil	kg CO ₂ eq	3.90E+01	7.74E00	1.15E+01	5.83E+01	2.97E+01	6.22E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.92E+00	7.60E+00	2.20E+01	2.99E-01	-2.73E+01
GWP-biogenic	kg CO ₂ eq	-7.60E+02	0.00E00	0.00E+00	-7.60E+02	0.00E+00	2.30E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.63E+02	7.37E+01	0.00E+00
GWP-luluc	kg CO ₂ eq	8.95E-01	5.46E-04	1.92E-01	1.09E+00	2.10E-01	2.61E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.60E-04	3.01E-02	6.43E-04	1.46E-05	-2.87E-01
ODP (A2)	kg CFC11 eq	2.48E-07	1.68E-07	2.15E-07	6.31E-07	8.95E-07	7.24E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.18E-08	1.28E-07	2.40E-07	3.66E-09	-6.38E-07
AP mol H+	mol H+ eq	1.06E-01	1.24E-02	1.99E-01	3.17E-01	2.35E-01	4.43E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.75E-02	3.36E-02	1.67E-01	2.19E-03	-9.89E-01
EP-freshwater	kg P eq	1.13E-02	2.16E-05	9.82E-04	1.23E-02	1.40E-04	4.93E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.35E-06	2.01E-05	2.33E-05	1.78E-06	-4.71E-03
EP-marine	kg N eq	3.71E-02	3.65E-03	5.75E-02	9.83E-02	1.01E-01	2.09E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-02	1.44E-02	8.01E-02	2.33E-03	-2.90E-01
EP-terrestrial	mol N eq	3.63E-01	3.69E-02	9.21E-01	1.32E+00	1.07E+00	2.28E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-01	1.53E-01	9.06E-01	1.11E-02	-4.88E+00
POCP kg NMVOC	kg NMVOC eq	3.27E-01	2.16E-02	1.71E-01	5.20E-01	3.31E-01	6.63E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.64E-02	4.73E-02	2.44E-01	3.28E-03	-8.37E-01
ADP-minerals & metals	kg Sb eq	4.98E-05	2.73E-07	5.72E-06	5.58E-05	3.59E-06	1.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-07	5.14E-07	5.68E-07	1.03E-08	-3.67E-06
ADP-fossil	MJ, net calorific value	7.74E+02	1.06E02	2.46E+02	1.13E+03	7.06E+02	5.64E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.16E+01	1.01E+02	8.48E+01	3.24E+00	-3.35E+02
WDP	m3 world eq. Deprived	2.23E+01	1.27E-01	7.36E+00	2.98E+01	1.66E+00	1.01E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.61E-02	2.37E-01	8.93E-01	5.52E-03	-1.96E+00

GWP-total = Global Warming Potential total
 GWP-fossil = Global Warming Potential fossil fuels
 GWP-biogenic = Global Warming Potential biogenic total
 GWP-LULUC = Global Warming Potential land use and land use change
 ODP = Depletion potential of the stratospheric ozone layer
 AP = Acidification Potential, Accumulated Exceedence
 AP-freshwater = Eutrophication Potential, fraction of nutrients reaching freshwater end compartment
 EP-marine = Eutrophication Potential, fraction of nutrients reaching marine end compartment
 EP-terrestrial = Eutrophication Potential, Accumulated Exceedence
 POCP = Formation potential of tropospheric ozone photochemical oxidants
 ADP-minerals & metals = Abiotic Depletion Potential for non-fossil resources [1]
 ADP-fossil = Abiotic Depletion for fossil resources potential [1]
 WDP = Water (user) deprivation potential, deprivation-weighted water consumption [1]

Disclaimer [1]:

- 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 experience with the indicator.

ENVIRONMENTAL IMPACT PER FUNCTIONAL UNIT OR DECLARED UNIT (ADDITIONAL INDICATORS A2)

Unit		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease incidence	3.23E-06	7.15E-07	2.77E-06	6.71E-06	4.61E-06	1.16E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.06E-06	6.59E-07	2.21E-06	6.14E-08	-1.36E-05
IRP	kBq U235 eq	4.83E-01	4.97E-02	1.37E+00	1.90E+00	7.33E-02	8.58E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.07E-03	1.05E-02	2.85E-02	6.76E-03	-5.77E-01
ETP-fw	CTUe	1.84E+03	4.76E+01	2.30E+02	2.12E+03	5.51E+02	2.90E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E+01	7.89E+01	7.68E+01	3.68E+00	-3.02E+02
HTP-c	CTUh	3.24E-07	4.71E-10	4.15E-08	3.66E-07	9.34E-09	3.85E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-10	1.34E-09	1.16E-07	2.37E-11	-7.83E-08
HTP-nc	CTUh	4.74E-07	7.67E-08	5.61E-07	1.11E-06	4.88E-07	1.55E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.50E-09	6.98E-08	2.34E-07	1.38E-09	-2.76E-06
SQP	-	3.68E+04	6.78E-01	3.08E+03	3.98E+04	6.99E+00	4.35E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.76E-02	1.00E+00	1.35E+00	8.00E+00	-2.11E+04

- PM = Potential incidence of disease due to particulate matter emissions
 IRP = Potential Human exposure efficiency relative to U235 [1]
 ETP-fw = Potential Comparative Toxic Unit for ecosystems [2]
 HTP-c = Potential Comparative Toxic Unit for humans, cancer [2]
 HTP-nc = Potential Comparative Toxic Unit for humans, non-cancer [2]
 SQP = Potential soil quality index [2]

Disclaimer [1]:

- 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.

Disclaimer [2]:

- 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 experience with the indicator.

OUTPUT FLOWS AND WASTE CATEGORIES PER FUNCTIONAL OR DECLARED UNIT (A1 AND A2)

Unit		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	1.07E-03	6.77E-04	5.16E-01	5.18E-01	4.76E-03	3.76E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.45E-04	6.81E-04	5.27E-04	2.02E-05	-1.70E-03
NHWD	kg	1.18E+00	9.08E-03	1.36E+00	2.55E+00	2.24E-01	3.82E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.80E-03	3.20E-02	1.85E+00	9.12E+01	-1.89E+00
RWD	kg	1.40E-02	3.58E-05	1.89E-03	1.59E-02	2.79E-05	4.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-06	4.00E-06	1.70E-05	3.58E-06	-4.25E-04
CRU	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	5.44E-06	0.00E+00	0.00E+00	5.44E-06	0.00E+00	2.82E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	kg	0.00E+00	0.00E+00	2.60E-04	2.60E-04	0.00E+00	1.27E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	MJ	1.76E-02	0.00E+00	9.97E+00	9.99E+00	0.00E+00	4.68E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.42E+03	0.00E+00	0.00E+00
ETE	MJ	3.32E-02	0.00E+00	2.92E+00	2.96E+00	0.00E+00	8.14E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E+03	0.00E+00	0.00E+00

HWD = Hazardous Waste Disposed
 NHWD = Non Hazardous Waste Disposed
 RWD = Radioactive Waste Disposed
 CRU = Components for reuse
 MFR = Materials for recycling
 MER = Materials for energy recovery
 EEE = Exported Electrical Energy
 ETE = Exported Thermal Energy

RESOURCE USE PER FUNCTIONAL OR DECLARED UNIT (A1 AND A2)

Unit		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	5.72E+01	9.56E-01	9.52E+02	1.01E+03	1.62E+00	1.70E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-01	2.31E-01	8.30E-01	2.86E-01	-5.02E+03
PERM	MJ	7.51E+03	0.00E+00	4.94E+00	7.52E+03	0.00E+00	-2.30E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-6.56E+03	-7.28E+02	0.00E+00
PERT	MJ	7.57E+03	9.56E-01	9.57E+02	8.53E+03	1.62E+00	-2.30E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-01	2.31E-01	-6.56E+03	-7.28E+02	-5.02E+03
PENRE	MJ	6.43E+02	1.06E+02	2.09E+02	9.58E+02	7.07E+02	5.64E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.16E+01	1.01E+02	8.48E+01	3.24E+00	-3.35E+02
PENRM	MJ	1.33E+02	0.00E+00	2.60E+01	1.59E+02	0.00E+00	-3.00E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.16E+02	-1.29E+01	0.00E+00
PENRT	MJ	7.76E+02	1.06E+02	2.35E+02	1.12E+03	7.07E+02	2.63E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.16E+01	1.01E+02	-3.13E+01	-9.66E+00	-3.35E+02
SM	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m3	1.57E+00	6.89E-03	2.78E+00	4.35E+00	1.26E-01	9.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-03	1.80E-02	1.84E-01	9.80E-04	-9.36E-02

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials
 PERM = Use of renewable primary energy resources used as raw materials
 PERT = Total use of renewable primary energy resources
 PENRE = Use of non-renewable primary energy resources excluding non-renewable energy resources used as raw materials
 PENRM = Use of non-renewable primary energy resources used as raw materials
 PENRT = 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
 FW = Use of net fresh water

CALCULATION RULES

Cut-off rule 1 % has been applied. This rule is based on the assumption that the input flows do not have a major impact on the environmental impacts as a whole. In insufficient data cases for such material flows known to have the potential to cause significant emissions into air and water or soil related to the environmental indicators, conservative “worst case” assumptions have been used when filling the data gaps.

Data quality is assessed as good.

Data collection for this EPD was conducted in 2024.

Environmental impact from forestry operations is allocated to the roundwood only and nothing to forestry residues such as branches and tops.

The production of sawn timber and further processed CLT by Stora Enso results in several valuable by-products like wood chips used for example in cellulose pulp production, as well as sawdust, bark and dry wood chips that can be used as biofuels.

The environmental impact allocation from the sawmill and further processing have been done between sawn timber and by-products as well as the main product and by-products based on economic revenue in accordance with EN 15804.

DATA QUALITY

The data quality assessment follows the scheme outlined in EN 15804:2012+A2:2019, Annex E, Table E.2 and in accordance with EN 15941:2024, which supports the overall reliability and representativeness of the EPD. Two generic datasets are rated as poor quality by geography. They have been used since better quality alternatives were not available. The overall quality of the other generic datasets is rated good.

The collection of year 2023 data for this EPD was conducted in 2024 and is based on a consistent and systematic approach across Stora Enso, Wood Products. Supplier-specific data were requested regularly to ensure accuracy and completeness. For each unit process within the system boundaries, measured, calculated input and output data were gathered. This includes data on raw materials, ancillary materials, fuels, energy, water, packaging, waste, and associated transport processes. The data quality of the specific data is rated as very good or good.

The data quality assessment was carried out considering several dimensions: Data were measured, calculated, or estimated, with a preference for measured values where available. All relevant flows and processes were included, and no significant emissions or inputs were omitted. A consistent methodology was applied across all life cycle stages. Regarding representativeness, the specific data reflect the production year 2023, ensuring temporal relevance. The data are specific to the production sites in Bad St. Leonhard (Austria), Ybbs (Austria) and Zdirec (Czech Republic), and were adjusted where necessary to reflect conditions for distribution in the Netherlands. Technologically, the data correspond to the actual processes and equipment used in the production of CLT by Stora Enso. Where specific data were not available, generic datasets from the ecoinvent 3.9.1 database (December 2022) were used. The use of proxy data is documented in the project report and considered to have minimal influence on the results.

POWER MIX

Generation of electricity or heat from primary energy resources are counted. Renewable biomass is in use for on-site heat generation. Market-based fossil-free electricity used at Stora Enso's production sites is purchased and verified through Guarantees of Origin, resulting in a climate impact of GWP-total: 0,0119 kg CO₂-eq./kWh.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

A1: This stage covers the extraction and processing of raw materials, such as forestry operations as well as glue production. All Stora Enso's wood raw material is sourced through a third-party certified wood traceability system. Stora Enso traceability system is certified according to FSC® and PEFC Chain of Custody systems.

A2: This stage covers the transportation of raw materials to the mill and the fuels needed for on-site transportation. The wood supply operations cover procurement of softwood from Austria, Czech Republic and their neighboring countries. Purchased logs are spruce logs transported by trucks and trains.

A3: This stage covers the production of CLT by Stora Enso and by-products. Generation of electricity or heat from primary energy resources are counted. Renewable biomass is in use for on-site heat generation. Fossil-free electricity used at Stora Enso's production sites is purchased and verified through Guarantees of Origin. Also incoming packaging materials and the treatment of waste not leaving the factory with the product are counted.

A4: CLT product transport to the Dutch customers is modelled according to the product transport scenario given in the NMD assessment method. Weighted average distance from CLT production sites to Utrecht is 949 km.

A5: The construction process includes such packaging waste, which relates to the delivered product, and the CLT loss in the form of construction waste (standard value 3% for prefabricated product is applied). The construction waste processing scenario is applied in line with the NMD assessment method, and the standard scenario table "Verwerkingsscenario's Einde Leven (Mei 2024)".

Lifting of the CLT elements at the construction site is accounted. No assembly of the elements is considered because of the multiple application possibilities, meaning additional metal pieces (fittings, screws) or other materials possibly needed for the installation like glues, sealants, rubbers etc. are excluded from the product system.

Use stage:

B1–B7: There are no environmental impacts expected in the use phase, and at least no harmful substances are released to air, water or ground during the use of the product. The emission classification approval of CLT by Stora Enso can be accessed on https://www.storaenso.com/-/media/documents/download-center/certificates/wood-products-approvals-and-certificates/m1-clt/3874_stora-enso-oij_clt_m1_2025-04-11_en.pdf

End-of-life stage:

C1–C4: End-of-life processing scenario of CLT is applied in line with the NMD assessment method, and the standard scenario table "Verwerkingsscenario's Einde Leven (Mei 2024)".

Module D – benefits and loads beyond the system boundary:

In the NMD assessment method defined net efficiency of the Dutch waste incineration plants, as well as the defined replaced energy sources have been applied.

DECLARATION OF SVHC

The product does not contain >0,1% Substances of Very High Concern (SVHC).

REFERENCES

Bepalingsmethode Milieuprestatie Bouwwerken, Versie 2.0 (July 2026), and amendments, based on EN 15804+A2.

EN 15804:2012 + A2:2019 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products

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.