

Owner: DEKO p|s
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3rd PARTY VERIFIED

EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | ISO 14025 & EN 15804



Owner of declaration

DEKO p/s
 Mårkærvej 11, DK-2630 Taastrup
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www.deko.dk



Issued:
03-10-2025

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Programme

EPD Danmark
www.epddanmark.dk



- | | |
|---|--|
| <input type="checkbox"/> Industry EPD | <input type="checkbox"/> Product specific |
| <input checked="" type="checkbox"/> Product EPD | <input type="checkbox"/> Average |
| | <input checked="" type="checkbox"/> Worst Case |

Basis of calculation

This EPD is developed and verified in accordance with the European standard EN 15804+A2 and the cPCRs EN17074:2019 and EN16485:2014.

Comparability

EPDs of construction products may not be comparable if they do not comply with the requirements in EN 15804. EPD data may not be comparable if the datasets used are not developed in accordance with EN 15804 and if the background systems are not based on the same database.

Validity

This EPD has been verified in accordance with ISO 14025 and is valid for 5 years from the date of issue.

Use

The intended use of an EPD is to communicate scientifically based environmental information for construction products, for the purpose of assessing the environmental performance of buildings.

EPD type

- Cradle-to-gate with modules C1-C4 and D
- Cradle-to-gate with options, modules C1-C4 and D
- Cradle-to-grave and module D
- Cradle-to-gate
- Cradle-to-gate with options

Declared product(s)

TRÉ Wall Unclassified 10-12.76
 TRÉ Wall Unclassified 16.76-17.52
 TRÉ Wall Unclassified 21.52
 TRÉ Wall Unclassified 42.76

The EPD covers declared products above with the wooden profiles in the species; douglas fir, white oak and european ash. The EPD is modelled with douglas fir as a worst-case scenario representing all three species of wood. Dependent on the impact category, the LCIA results will vary between the softwood and hardwood species. For the majority of impact categories the variation is below +/- 1%.

Number of declared datasets/product variations: 4

Production site

Mårkærvej 11, DK-2630 Taastrup

Use of Guarantees of Origin

- No certificates used
- Electricity covered by GoO
- Biogas covered by GoO

Functional unit

1 m² of soundproofed glazed wall partition system, including associated fixing components with a reference service life of 30 years.

Year of production site data (A3)

2023

EPD version

[Vers. 1], [October 2025]

CEN standard EN 15804 serves as the core PCR
Independent verification of the declaration and data, according to EN ISO 14025 <input type="checkbox"/> internal <input checked="" type="checkbox"/> external
Third party verifier: Linda Højbye Life Cycle Assessment Consulting

Martha Katrine Sørensen
 EPD Danmark

Life cycle stages and modules (MND = module not declared)

Product			Construction process		Use								End of life				Beyond the system boundary
Raw material supply	Transport	Manufacturing	Transport	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Re-use, recovery and 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	

Product information

Product description

The main product components are shown in the table below.

Material	Weight-% of declared products
Glass (incl. PVB): 10-12.76, 16.76-17.52, 21.52	90-94
Insulating glass unit (IGU): 42.76	
Varnished wood profiles ¹	5-10
Steel	<0.1
Plastic	<0.1

Product packaging:

The composition of the sales- and transport packaging of the product is shown in the table below.

Material	Weight of packaging material (kg)	Weight-% of packaging
Plastic (LDPE, PP)	0.19	4
Wood (pallet, masonite, cork)	4.29	91
Cardboard	0.18	4
Steel straps	0.07	1
Total	4.73	100

Representativity

This declaration, including data collection and the modelled foreground system including results, represents the production of 1 m² glazed wall system at the production site located in Taastrup, DK. Product specific data are based on average values collected for 2023. Background data are based on 'LCA for Experts' (MLC Professional Database, 2024) and EcoInvent (v3.10) database and are less than 10 years old. Generally, the used background datasets are of high quality, and the majority of the datasets are only a couple of years old. The representativity of the datasets has been assessed using the table E.1 described in EN15804+A2, Annex E.

¹ Douglas fir, white oak or european ash

Hazardous substances

The wall systems in the series of TRÉ does not contain substances listed on the "Candidate List of Substances of Very High Concern for authorisation"

(<http://echa.europa.eu/candidate-list-table>)

Product(s) use

The function of the product is division of indoor spaces.

Essential characteristics

TRÉ Wall Unclassified compose of either laminated glass or an IGU. The IGU consist of PVB lamination, silicone sealing, aluminium spacer and argon gas.

All system variations compose of varnished wood profiles and minor fractions of plastic and steel.

The wood used in TRÉ wall unclassified is FSC certified.

The systems offer sound insulation and fireproofing according to the standards; (DS/EN ISO 10140-2).

Technical information and certificates can be obtained by contacting DEKO.

Reference Service Life (RSL)

The reference service life is 30 years which is determined according to the guarantee DEKO p|s provides on their systems.

Geographical scope

The geographical scope of this study is Europe.

Picture of product(s)²



² Variants of TRÉ Wall Unclassified look identical meaning that only one picture of the products is included.

LCA background

Declared unit

The LCI and LCIA results in this EPD relates to 1 m² glazed wall system.

TRÉ Wall Unclassified	10-12.76	16.76-17.52	21.52	42.76	Unit
Declared unit	1 m ² glazed wall				-
Density	32.98	43.47	53.17	62.60	kg/m ²
Conversion factor to 1 kg	0.030	0.023	0.019	0.016	m ² /kg

Functional unit

1 m² of glazed wall partition system, including associated fixing components with a reference service life of 30 years.

Allocation

Allocation is made in accordance with EN 15804 + A2 and EN 16485. Waste in module A3 is allocated to the system of TRÉ Wall Unclassified based on the total amount of bought glass panes (m²). Energy consumption for production in A3 is allocated to the system based on the total amount of energy used at DEKO and the total amount of bought glass panes (m²) at DEKO. Since the declared products are not yet at full scale production, the allocation of energy consumption in A3 is based on an extrapolation of the existing production data of a reference product manufactured by DEKO³. This extrapolation is deemed acceptable as the production flow for TRÉ wall is very similar to this wall system.

All the materials in TRÉ Wall Unclassified are modelled as primary materials.

PCR

This EPD is developed according to the core rules for the product category of construction products in EN 15804. In addition to this it follows the cPCR for glass in buildings EN 17074:2019 and the cPCR EN16485:2014 for wood and wood-based products for use in construction.

Energy modelling principles

Foreground system:

The products are produced without purchase of green certificates (GO). Therefore, the energy consumption in module A3 is modelled using residual electricity mix (DK). Remaining energy processes are modelled using consumption mix (grid mix).

Information about the energy mix in the foreground system:

Energy mix	EF	Unit
Electricity grid mix, CN, 2020	0.786	kg CO ₂ -eq/kWh
Electricity grid mix, DK, 2020	0.156	kg CO ₂ -eq/kWh
Electricity grid mix, Europe, 2020	0.289	kg CO ₂ -eq/kWh
Residual grid mix, DK, 2023	0.647	kg CO ₂ -eq/kWh
Thermal energy from natural gas, DK, 2020	0.062	kg CO ₂ -eq/MJ

Background system:

Upstream and downstream processes are modelled using datasets representing average supply mixes (grid mix) for the specific country or region.

³ DEKO FG 2023 (EPD no.: MD-24067-EN)

Flowdiagram



System boundary

This EPD is based on a cradle-to-grave and module D LCA, in which 100 weight-% has been accounted for.

The general rules apply for the exclusion of inputs and outputs in the LCA, which is in compliance with the rules in EN 15804:2012+A2:2019, 6.3.6, in case of insufficient input data gaps for unit process, the cut-off criteria shall be 1% of renewable and non-renewable primary energy usage and 1% of the total mass input of that unit process. The total of neglected input flows per module, e.g. per module A1-A3, A4-A5, B1-B5, B6-B7, C1-C4 and module D shall be a maximum of 5% of energy usage and mass.

Excluded processes in the system include energy use of electric screwdriver during installation and disassembly in module A5 and C1, respectively. In addition to this, the energy use for adjustment of wooden profiles in module A5 is excluded as this is deemed negligible.

Product stage (A1-A3) includes:

- A1 – Extraction and processing of raw materials
- A2 – Transport to the production site
- A3 – Manufacturing processes

The product stage comprises the acquisition of all raw materials, products and energy, transport to the production site, losses from production, packaging and waste processing up to the “end-of-waste” state or final disposal. The LCA results are declared in aggregated form for the product stage, which means, that the sub-modules A1, A2 and A3 are declared as one module A1-A3.

The TRÉ Wall Unclassified system compose of either regular glass⁴ with PVB laminate or an IGU⁵. In addition to this, the system also consists of varnished wood profiles, steel and plastic.

The glass panes are customised in specific measurement before arriving at DEKO, hence no

adjustment is needed. The IGU compose of glass, PVB lamination, silicone, argon gas and a spacer consisting of aluminium.

The wood arrives at DEKO as pre-manufactured profiles. At DEKO the wood profiles are varnished, and minor adjustments are done as the profiles are delivered in standard length at DEKO. The transport and treatment of wood cut-offs are handled in module A3 but are not credited in module D.

The TRÉ Wall Unclassified system is produced, stored, and packed in Taastrup DK. The energy used for production and storage is included in module A3.

Construction process stage (A4-A5) includes:

The installation of the TRÉ Wall Unclassified system is done using electric screw drivers and a glass vacuum lifter. The energy use of the glass vacuum lifter is included.

At the installation site, the wooden profiles are adjusted for the wall system. The wood cut-off is assumed to be incinerated and the energy recovery is credited in module D.

Regarding the packaging, the steel straps are assumed recycled in A5 and credited in module D.

The plastic fraction of the packaging is assumed incinerated with energy recovery and credited in module D. The modified wooden pallet⁶ used for transporting the glass panes is assumed reused 10 times. Therefore, 1/10 of the pallet is assumed incinerated and the energy recovery is credited in module D. Cardboard and other wooden packaging components are assumed incinerated together with the pallet.

⁴ Variant: 10-12.76, 16.76-17.52 & 21.52

⁵ Variant: 42.76

⁶ This is not a standard EUR-pallet, but rather a modified pallet used for transporting glass. This type of pallet is used 10 times, not 25 times like a standard EUR-pallet.

Use stage (B1-B7) includes:

The environmental impacts occurring in the use stage can exclusively be attributed to the cleaning of the glass panes. No replacements are expected during the RSL. It is assumed that the glass panes are cleaned three times per year with the use of 0.2 l water and 0.001kg cleaning agent per m² throughout the 30 years (RSL). Subsequently, the used cleaning water and cleaning agent is treated as wastewater.

End of Life (C1-C4) includes:

It is assumed that 100% of the wall system is collected at the demolition site and sent to waste treatment.

The waste is transported to waste treatment facilities. For recycling the distance is set to 230-550 km depending on the material whereas the waste going to incineration is transported 50 km and waste to landfill is transported 70 km.

The waste treatment for the specific material fractions follows the guidelines in cPCR EN17074:2019 and literature. The following waste treatment rates are applied: 15% loss ending up on landfill is assumed for waste treatment of steel. 100% of the plastic is incinerated. 30% of the glass and IGU is assumed recycled. 100% of the varnished wood profiles are assumed incinerated.

Materials	Recycling (%)	Incineration (%)	Landfill (%)
<i>TRÉ Wall Unclassified: 10-12.76, 16.76-17.52 & 21.52</i>			
Glass	30	0	70
PVB	0	30	70

<i>TRÉ Wall Unclassified: 42.76</i>			
IGU	30	0	70
<i>All systems</i>			
Varnished wood profiles	0	100	0
Steel	85	0	15
Plastic	0	100	0

Re-use, recovery and recycling potential (D) includes:

In module D the potential benefits from recovery and recycling of materials from the product and packaging is modelled.

LCA results

ENVIRONMENTAL IMPACTS PER 1 m ² TRÉ Wall Unclassified (10-12.76 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	3.49E+01	1.36E+00	8.59E+00	0.00E+00	3.13E-01	0.00E+00	3.35E-01	6.83E-01	6.29E+00	3.76E-01	-1.06E+01
GWP-fossil	[kg CO ₂ eq.]	4.69E+01	1.33E+00	7.90E-01	0.00E+00	2.92E-01	0.00E+00	3.32E-01	6.72E-01	1.15E+00	3.76E-01	-1.05E+01
GWP-biogenic	[kg CO ₂ eq.]	-1.16E+01	0.00E+00*	7.59E+00	0.00E+00	0.00E+00*	0.00E+00	2.99E-03	0.00E+00*	4.00E+00	0.00E+00*	-2.81E-02
GWP-luluc	[kg CO ₂ eq.]	5.00E-02	2.20E-02	1.19E-03	0.00E+00	2.12E-02	0.00E+00	5.06E-05	1.12E-02	6.03E-03	2.22E-03	-2.33E-03
ODP	[kg CFC 11 eq.]	6.20E-08	1.94E-13	5.26E-12	0.00E+00	2.42E-08	0.00E+00	7.54E-12	9.78E-14	3.42E-12	1.02E-12	-3.89E-11
AP	[mol H ⁺ eq.]	3.71E-01	5.79E-03	1.20E-03	0.00E+00	2.06E-03	0.00E+00	6.41E-04	4.00E-03	2.03E-03	2.65E-03	-5.84E-02
EP-freshwater	[kg P eq.]	1.49E-03	5.58E-06	1.27E-06	0.00E+00	1.14E-04	0.00E+00	1.39E-06	2.83E-06	2.16E-06	1.01E-05	-1.49E-05
EP-marine	[kg N eq.]	8.37E-02	2.60E-03	4.14E-04	0.00E+00	6.90E-04	0.00E+00	1.60E-04	1.95E-03	8.34E-04	6.79E-04	-1.74E-02
EP-terrestrial	[mol N eq.]	9.54E-01	2.91E-02	4.91E-03	0.00E+00	4.37E-03	0.00E+00	1.68E-03	2.17E-02	1.03E-02	7.48E-03	-1.97E-01
POCP	[kg NMVOC eq.]	1.79E-01	5.35E-03	9.74E-04	0.00E+00	1.23E-03	0.00E+00	4.23E-04	3.90E-03	1.81E-03	2.08E-03	-3.55E-02
ADPm ¹	[kg Sb eq.]	2.28E-05	1.14E-07	4.97E-08	0.00E+00	3.21E-06	0.00E+00	6.22E-08	5.78E-08	5.19E-08	2.44E-08	-6.12E-07
ADPf ¹	[MJ]	6.04E+02	1.74E+01	6.09E+00	0.00E+00	5.34E+00	0.00E+00	6.96E+00	8.74E+00	6.02E+00	5.02E+00	-1.57E+02
WDP ¹	[m ³ world eq. deprived]	8.30E+00	2.03E-02	3.06E-01	0.00E+00	4.16E-01	0.00E+00	9.05E-02	1.03E-02	6.91E-01	4.33E-02	-9.35E-01
Caption	GWP-total = Globale Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.											

* According to EN15804, the uptake of biogenic carbon from datasets describing transport, energy, detergent and water in module A2, A3, A4, B2, C2 and C4 is balanced out as it represents less than 5 weight% of the biogenic carbon in the declared product.

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 m ² TRÉ Wall Unclassified (10-12.76 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
PM	[Disease incidence]	2.80E-06	4.42E-08	8.06E-09	0.00E+00	2.04E-08	0.00E+00	5.35E-09	1.86E-08	9.53E-09	3.31E-08	-4.00E-07
IRP ²	[kBq U235 eq.]	1.95E+00	4.58E-03	1.25E-01	0.00E+00	2.14E-02	0.00E+00	1.83E-01	2.31E-03	7.59E-02	6.29E-03	-9.37E-01
ETP-fw ¹	[CTUe]	7.30E+02	1.29E+01	2.30E+00	0.00E+00	5.42E+00	0.00E+00	2.02E+00	6.49E+00	5.07E+00	3.33E+00	-1.27E+02
HTP-c ¹	[CTUh]	8.14E-07	2.61E-10	1.13E-10	0.00E+00	3.72E-10	0.00E+00	1.13E-10	1.31E-10	8.12E-13	7.34E-11	-1.37E-09
HTP-nc ¹	[CTUh]	3.20E-07	1.17E-08	3.29E-09	0.00E+00	1.04E-08	0.00E+00	1.74E-09	5.89E-09	7.44E-09	2.68E-09	-7.12E-08
SQP ¹	-	1.47E+03	8.47E+00	2.56E+00	0.00E+00	3.97E+00	0.00E+00	2.95E+00	4.30E+00	3.82E+00	1.35E+00	-4.43E+01
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.											
	² 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.											

RESOURCE USE PER 1 m ² TRÉ Wall Unclassified (10-12.76 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
PERE	[MJ]	1.66E+01	1.48E+00	7.36E+00	0.00E+00	1.78E+00	0.00E+00	5.03E+00	7.53E-01	4.50E+01	8.69E-01	-3.65E+01
PERM	[MJ]	1.14E+02	0.00E+00	-7.11E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-4.27E+01	0.00E+00	0.00E+00
PERT	[MJ]	1.30E+02	1.48E+00	-6.37E+01	0.00E+00	1.78E+00	0.00E+00	5.03E+00	7.53E-01	2.27E+00	8.69E-01	-3.65E+01
PENRE	[MJ]	6.01E+02	1.74E+01	2.13E+01	0.00E+00	5.34E+00	0.00E+00	6.96E+00	8.74E+00	3.52E+01	5.02E+00	-1.57E+02
PENRM	[MJ]	3.73E+01	0.00E+00	-7.60E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-2.92E+01	0.00E+00	0.00E+00
PENRT	[MJ]	6.38E+02	1.74E+01	1.37E+01	0.00E+00	5.34E+00	0.00E+00	6.96E+00	8.74E+00	6.02E+00	5.02E+00	-1.57E+02
SM	[kg]	3.80E+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
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
FW	[m ³]	2.16E-01	1.65E-03	8.39E-03	0.00E+00	9.70E-03	0.00E+00	3.84E-03	8.39E-04	1.71E-02	1.32E-03	-4.43E-03
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources 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 excluding non renewable primary 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 material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 m ² TRÉ Wall Unclassified (10-12.76 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
HWD	[kg]	2.17E-01	6.65E-10	7.01E-09	0.00E+00	1.08E-10	0.00E+00	1.00E-08	3.35E-10	4.59E-09	1.25E-09	-5.48E-08
NHWD	[kg]	4.82E+00	2.83E-03	7.94E-02	0.00E+00	1.75E-02	0.00E+00	5.75E-03	1.43E-03	3.07E-01	2.46E+01	-2.07E+00
RWD	[kg]	9.36E-03	3.16E-05	7.61E-04	0.00E+00	1.04E-05	0.00E+00	1.11E-03	1.59E-05	4.48E-04	5.36E-05	-5.74E-03

CRU	[kg]	0.00E+00	0.00E+00	3.80E+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]	2.08E+00	0.00E+00	8.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E+01	0.00E+00	0.00E+00
MER	[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
EEE	[MJ]	3.43E+00	0.00E+00	3.40E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.19E+00	0.00E+00	0.00E+00
EET	[MJ]	6.42E+00	0.00E+00	6.11E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E+01	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											

BIOGENIC CARBON CONTENT PER 1 m ² TRÉ Wall Unclassified (10-12.76 mm)		
Parameter	Unit	At the factory gate
Biogenic carbon content in product	[kg C]	1.33
Biogenic carbon content in accompanying packaging	[kg C]	1.95
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

ENVIRONMENTAL IMPACTS PER 1 m² TRÉ Wall Unclassified (16.76-17.52 mm)

Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	4.88E+01	1.73E+00	8.59E+00	0.00E+00	3.13E-01	0.00E+00	3.37E-01	9.05E-01	7.07E+00	5.14E-01	-1.34E+01
GWP-fossil	[kg CO ₂ eq.]	6.08E+01	1.70E+00	7.90E-01	0.00E+00	2.92E-01	0.00E+00	3.34E-01	8.90E-01	1.82E+00	5.14E-01	-1.34E+01
GWP-biogenic	[kg CO ₂ eq.]	-1.17E+01	0.00E+00*	7.59E+00	0.00E+00	0.00E+00*	0.00E+00	3.01E-03	0.00E+00*	4.10E+00	0.00E+00*	-3.30E-02
GWP-luluc	[kg CO ₂ eq.]	6.25E-02	2.79E-02	1.19E-03	0.00E+00	2.12E-02	0.00E+00	5.08E-05	1.48E-02	8.12E-03	3.01E-03	-3.00E-03
ODP	[kg CFC 11 eq.]	6.20E-08	2.47E-13	5.26E-12	0.00E+00	2.42E-08	0.00E+00	7.57E-12	1.30E-13	4.61E-12	1.41E-12	-4.58E-11
AP	[mol H ⁺ eq.]	4.92E-01	7.37E-03	1.20E-03	0.00E+00	2.06E-03	0.00E+00	6.43E-04	5.30E-03	2.51E-03	3.62E-03	-7.70E-02
EP-freshwater	[kg P eq.]	1.52E-03	7.11E-06	1.27E-06	0.00E+00	1.14E-04	0.00E+00	1.39E-06	3.76E-06	2.90E-06	1.99E-05	-1.67E-05
EP-marine	[kg N eq.]	1.11E-01	3.31E-03	4.14E-04	0.00E+00	6.90E-04	0.00E+00	1.61E-04	2.59E-03	1.06E-03	9.22E-04	-2.29E-02
EP-terrestrial	[mol N eq.]	1.26E+00	3.71E-02	4.91E-03	0.00E+00	4.37E-03	0.00E+00	1.68E-03	2.88E-02	1.29E-02	1.02E-02	-2.60E-01
POCP	[kg NMVOC eq.]	2.35E-01	6.81E-03	9.74E-04	0.00E+00	1.23E-03	0.00E+00	4.25E-04	5.17E-03	2.27E-03	2.83E-03	-4.66E-02
ADPm ¹	[kg Sb eq.]	2.33E-05	1.45E-07	4.97E-08	0.00E+00	3.21E-06	0.00E+00	6.24E-08	7.67E-08	6.99E-08	3.34E-08	-7.20E-07
ADPf ¹	[MJ]	7.94E+02	2.22E+01	6.09E+00	0.00E+00	5.34E+00	0.00E+00	6.99E+00	1.16E+01	8.11E+00	6.90E+00	-2.00E+02
WDP ¹	[m ³ world eq. deprived]	1.11E+01	2.58E-02	3.06E-01	0.00E+00	4.16E-01	0.00E+00	9.09E-02	1.36E-02	7.73E-01	5.93E-02	-1.14E+00
Caption	GWP-total = Globale Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.											

* According to EN15804, the uptake of biogenic carbon from datasets describing transport, energy, detergent and water in module A2, A3, A4, B2, C2 and C4 is balanced out as it represents less than 5 weight% of the biogenic carbon in the declared product.

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 m² TRÉ Wall Unclassified (16.76-17.52 mm)

Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
PM	[Disease incidence]	3.57E-06	5.63E-08	8.06E-09	0.00E+00	2.04E-08	0.00E+00	5.38E-09	2.47E-08	1.24E-08	4.49E-08	-5.27E-07
IRP ²	[kBq U235 eq.]	2.37E+00	5.83E-03	1.25E-01	0.00E+00	2.14E-02	0.00E+00	1.84E-01	3.06E-03	9.92E-02	8.77E-03	-1.10E+00
ETP-fw ¹	[CTUe]	9.70E+02	1.64E+01	2.30E+00	0.00E+00	5.42E+00	0.00E+00	2.03E+00	8.61E+00	6.97E+00	4.86E+00	-1.68E+02
HTP-c ¹	[CTUh]	1.63E-06	3.32E-10	1.13E-10	0.00E+00	3.72E-10	0.00E+00	1.14E-10	1.74E-10	-4.64E-12	1.04E-10	-1.68E-09
HTP-nc ¹	[CTUh]	4.14E-07	1.48E-08	3.29E-09	0.00E+00	1.04E-08	0.00E+00	1.74E-09	7.81E-09	9.97E-09	3.71E-09	-9.12E-08
SQP ¹	-	1.50E+03	1.08E+01	2.56E+00	0.00E+00	3.97E+00	0.00E+00	2.96E+00	5.70E+00	5.09E+00	1.84E+00	-4.76E+01
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.											
	² 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.											

RESOURCE USE PER 1 m ² TRÉ Wall Unclassified (16.76-17.52 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
PERE	[MJ]	3.11E+01	1.89E+00	7.36E+00	0.00E+00	1.78E+00	0.00E+00	5.06E+00	9.99E-01	4.65E+01	1.19E+00	-4.14E+01
PERM	[MJ]	1.14E+02	0.00E+00	-7.11E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-4.34E+01	0.00E+00	0.00E+00
PERT	[MJ]	1.45E+02	1.89E+00	-6.37E+01	0.00E+00	1.78E+00	0.00E+00	5.06E+00	9.99E-01	3.03E+00	1.19E+00	-4.14E+01
PENRE	[MJ]	7.91E+02	2.22E+01	2.13E+01	0.00E+00	5.34E+00	0.00E+00	6.99E+00	1.16E+01	5.18E+01	6.90E+00	-2.00E+02
PENRM	[MJ]	5.16E+01	0.00E+00	-7.60E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-4.37E+01	0.00E+00	0.00E+00
PENRT	[MJ]	8.43E+02	2.22E+01	1.37E+01	0.00E+00	5.34E+00	0.00E+00	6.99E+00	1.16E+01	8.11E+00	6.90E+00	-2.00E+02
SM	[kg]	3.80E+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
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
FW	[m ³]	2.86E-01	2.10E-03	8.39E-03	0.00E+00	9.70E-03	0.00E+00	3.86E-03	1.11E-03	1.94E-02	1.81E-03	-1.08E-02
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources 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 excluding non renewable primary 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 material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 m ² TRÉ Wall Unclassified (16.76-17.52 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
HWD	[kg]	2.17E-01	8.46E-10	7.01E-09	0.00E+00	1.08E-10	0.00E+00	1.01E-08	4.44E-10	6.15E-09	1.72E-09	-6.44E-08
NHWD	[kg]	6.28E+00	3.60E-03	7.94E-02	0.00E+00	1.75E-02	0.00E+00	5.78E-03	1.89E-03	5.09E-01	3.33E+01	-2.75E+00
RWD	[kg]	1.20E-02	4.02E-05	7.61E-04	0.00E+00	1.04E-05	0.00E+00	1.12E-03	2.11E-05	5.88E-04	7.44E-05	-6.75E-03

CRU	[kg]	0.00E+00	0.00E+00	3.80E+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]	2.08E+00	0.00E+00	8.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E+01	0.00E+00	0.00E+00
MER	[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
EEE	[MJ]	3.43E+00	0.00E+00	3.40E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.31E+00	0.00E+00	0.00E+00
EET	[MJ]	6.42E+00	0.00E+00	6.11E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E+01	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											

BIOGENIC CARBON CONTENT PER 1 m ² TRÉ Wall Unclassified (16.76-17.52 mm)		
Parameter	Unit	At the factory gate
Biogenic carbon content in product	[kg C]	1.35
Biogenic carbon content in accompanying packaging	[kg C]	1.95
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

ENVIRONMENTAL IMPACTS PER 1 m ² TRÉ Wall Unclassified (21.52 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	6.04E+01	2.07E+00	8.61E+00	0.00E+00	3.13E-01	0.00E+00	3.37E-01	1.12E+00	7.32E+00	6.34E-01	-1.63E+01
GWP-fossil	[kg CO ₂ eq.]	7.25E+01	2.03E+00	7.91E-01	0.00E+00	2.92E-01	0.00E+00	3.33E-01	1.10E+00	2.00E+00	6.34E-01	-1.62E+01
GWP-biogenic	[kg CO ₂ eq.]	-1.18E+01	0.00E+00*	7.60E+00	0.00E+00	0.00E+00*	0.00E+00	3.00E-03	0.00E+00*	4.16E+00	0.00E+00*	-3.77E-02
GWP-luluc	[kg CO ₂ eq.]	7.43E-02	3.35E-02	1.19E-03	0.00E+00	2.12E-02	0.00E+00	5.07E-05	1.82E-02	1.01E-02	3.73E-03	-3.66E-03
ODP	[kg CFC 11 eq.]	6.20E-08	2.95E-13	5.27E-12	0.00E+00	2.42E-08	0.00E+00	7.57E-12	1.60E-13	5.42E-12	1.73E-12	-5.24E-11
AP	[mol H ⁺ eq.]	5.99E-01	8.83E-03	1.20E-03	0.00E+00	2.06E-03	0.00E+00	6.43E-04	6.53E-03	2.86E-03	4.47E-03	-9.53E-02
EP-freshwater	[kg P eq.]	1.53E-03	8.51E-06	1.27E-06	0.00E+00	1.14E-04	0.00E+00	1.39E-06	4.63E-06	3.53E-06	2.02E-05	-1.85E-05
EP-marine	[kg N eq.]	1.36E-01	3.97E-03	4.15E-04	0.00E+00	6.90E-04	0.00E+00	1.61E-04	3.19E-03	1.24E-03	1.14E-03	-2.83E-02
EP-terrestrial	[mol N eq.]	1.55E+00	4.44E-02	4.92E-03	0.00E+00	4.37E-03	0.00E+00	1.68E-03	3.55E-02	1.50E-02	1.26E-02	-3.22E-01
POCP	[kg NMVOC eq.]	2.85E-01	8.15E-03	9.78E-04	0.00E+00	1.23E-03	0.00E+00	4.25E-04	6.38E-03	2.61E-03	3.50E-03	-5.75E-02
ADPm ¹	[kg Sb eq.]	2.38E-05	1.74E-07	4.98E-08	0.00E+00	3.21E-06	0.00E+00	6.24E-08	9.45E-08	8.37E-08	4.11E-08	-8.27E-07
ADPf ¹	[MJ]	9.41E+02	2.65E+01	6.10E+00	0.00E+00	5.34E+00	0.00E+00	6.98E+00	1.43E+01	9.43E+00	8.48E+00	-2.42E+02
WDP ¹	[m ³ world eq. deprived]	1.17E+01	3.09E-02	3.08E-01	0.00E+00	4.16E-01	0.00E+00	9.09E-02	1.68E-02	8.02E-01	7.31E-02	-1.33E+00
Caption	GWP-total = Globale Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.											

* According to EN15804, the uptake of biogenic carbon from datasets describing transport, energy, detergent and water in module A2, A3, A4, B2, C2 and C4 is balanced out as it represents less than 5 weight% of the biogenic carbon in the declared product.

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 m ² TRÉ Wall Unclassified (21.52 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
PM	[Disease incidence]	4.20E-06	6.74E-08	8.09E-09	0.00E+00	2.04E-08	0.00E+00	5.37E-09	3.05E-08	1.29E-08	5.56E-08	-6.52E-07
IRP ²	[kBq U235 eq.]	2.80E+00	6.98E-03	1.25E-01	0.00E+00	2.14E-02	0.00E+00	1.83E-01	3.78E-03	1.20E-01	1.07E-02	-1.26E+00
ETP-fw ¹	[CTUe]	1.20E+03	1.97E+01	2.31E+00	0.00E+00	5.42E+00	0.00E+00	2.02E+00	1.06E+01	8.28E+00	5.77E+00	-2.07E+02
HTP-c ¹	[CTUh]	1.62E-06	3.97E-10	1.14E-10	0.00E+00	3.72E-10	0.00E+00	1.14E-10	2.15E-10	-2.88E-11	1.26E-10	-1.99E-09
HTP-nc ¹	[CTUh]	4.75E-07	1.78E-08	3.30E-09	0.00E+00	1.04E-08	0.00E+00	1.74E-09	9.62E-09	1.10E-08	4.54E-09	-1.11E-07
SQP ¹	-	1.53E+03	1.29E+01	2.56E+00	0.00E+00	3.97E+00	0.00E+00	2.96E+00	7.03E+00	6.16E+00	2.28E+00	-5.07E+01
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.											
	² 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.											

RESOURCE USE PER 1 m ² TRÉ Wall Unclassified (21.52 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
PERE	[MJ]	4.47E+01	2.26E+00	7.37E+00	0.00E+00	1.78E+00	0.00E+00	5.05E+00	1.23E+00	4.74E+01	1.47E+00	-4.61E+01
PERM	[MJ]	1.15E+02	0.00E+00	-7.11E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-4.38E+01	0.00E+00	0.00E+00
PERT	[MJ]	1.60E+02	2.26E+00	-6.37E+01	0.00E+00	1.78E+00	0.00E+00	5.05E+00	1.23E+00	3.59E+00	1.47E+00	-4.61E+01
PENRE	[MJ]	9.38E+02	2.65E+01	2.13E+01	0.00E+00	5.34E+00	0.00E+00	6.98E+00	1.43E+01	5.30E+01	8.48E+00	-2.42E+02
PENRM	[MJ]	5.16E+01	0.00E+00	-7.60E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-4.36E+01	0.00E+00	0.00E+00
PENRT	[MJ]	9.90E+02	2.65E+01	1.37E+01	0.00E+00	5.34E+00	0.00E+00	6.98E+00	1.43E+01	9.43E+00	8.48E+00	-2.42E+02
SM	[kg]	3.80E+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
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
FW	[m ³]	3.06E-01	2.52E-03	8.43E-03	0.00E+00	9.70E-03	0.00E+00	3.85E-03	1.37E-03	2.03E-02	2.23E-03	-1.69E-02
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources 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 excluding non renewable primary 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 material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 m ² TRÉ Wall Unclassified (21.52 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
HWD	[kg]	2.17E-01	1.01E-09	7.02E-09	0.00E+00	1.08E-10	0.00E+00	1.01E-08	5.47E-10	7.26E-09	2.11E-09	-7.39E-08
NHWD	[kg]	7.74E+00	4.31E-03	7.97E-02	0.00E+00	1.75E-02	0.00E+00	5.77E-03	2.33E-03	5.07E-01	4.13E+01	-3.42E+00
RWD	[kg]	1.46E-02	4.81E-05	7.63E-04	0.00E+00	1.04E-05	0.00E+00	1.11E-03	2.60E-05	7.06E-04	9.10E-05	-7.73E-03

CRU	[kg]	0.00E+00	0.00E+00	3.80E+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]	2.08E+00	0.00E+00	8.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E+01	0.00E+00	0.00E+00
MER	[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
EEE	[MJ]	3.43E+00	0.00E+00	3.42E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.34E+00	0.00E+00	0.00E+00
EET	[MJ]	6.42E+00	0.00E+00	6.15E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E+01	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											

BIOGENIC CARBON CONTENT PER 1 m ² TRÉ Wall Unclassified (21.52 mm)		
Parameter	Unit	At the factory gate
Biogenic carbon content in product	[kg C]	1.36
Biogenic carbon content in accompanying packaging	[kg C]	1.95
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

ENVIRONMENTAL IMPACTS PER 1 m ² TRÉ Wall Unclassified (42.76 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
GWP-total	[kg CO ₂ eq.]	7.28E+01	2.40E+00	8.66E+00	0.00E+00	3.17E-01	0.00E+00	3.37E-01	1.32E+00	7.58E+00	7.41E-01	-1.94E+01
GWP-fossil	[kg CO ₂ eq.]	8.55E+01	2.36E+00	7.92E-01	0.00E+00	2.96E-01	0.00E+00	3.34E-01	1.30E+00	1.99E+00	7.42E-01	-1.93E+01
GWP-biogenic	[kg CO ₂ eq.]	-1.19E+01	0.00E+00*	7.64E+00	0.00E+00	0.00E+00*	0.00E+00	3.00E-03	0.00E+00*	4.38E+00	0.00E+00*	-4.36E-02
GWP-luluc	[kg CO ₂ eq.]	8.87E-02	3.89E-02	1.19E-03	0.00E+00	2.15E-02	0.00E+00	5.08E-05	2.16E-02	1.19E-02	4.39E-03	-4.37E-03
ODP	[kg CFC 11 eq.]	6.19E-08	3.43E-13	5.27E-12	0.00E+00	2.45E-08	0.00E+00	7.57E-12	1.89E-13	5.93E-12	2.01E-12	-5.96E-11
AP	[mol H ⁺ eq.]	7.13E-01	1.03E-02	1.21E-03	0.00E+00	2.08E-03	0.00E+00	6.43E-04	7.73E-03	3.17E-03	5.24E-03	-1.15E-01
EP-freshwater	[kg P eq.]	1.52E-03	9.89E-06	1.27E-06	0.00E+00	1.15E-04	0.00E+00	1.39E-06	5.48E-06	4.07E-06	1.51E-05	-2.05E-05
EP-marine	[kg N eq.]	1.63E-01	4.61E-03	4.18E-04	0.00E+00	6.99E-04	0.00E+00	1.61E-04	3.77E-03	1.40E-03	1.34E-03	-3.39E-02
EP-terrestrial	[mol N eq.]	1.87E+00	5.16E-02	4.97E-03	0.00E+00	4.43E-03	0.00E+00	1.68E-03	4.20E-02	1.68E-02	1.48E-02	-3.85E-01
POCP	[kg NMVOC eq.]	3.42E-01	9.47E-03	9.86E-04	0.00E+00	1.25E-03	0.00E+00	4.25E-04	7.54E-03	2.88E-03	4.11E-03	-6.90E-02
ADPm ¹	[kg Sb eq.]	6.50E-05	2.02E-07	4.99E-08	0.00E+00	3.25E-06	0.00E+00	6.24E-08	1.12E-07	9.41E-08	4.81E-08	-9.54E-07
ADPf ¹	[MJ]	1.09E+03	3.08E+01	6.11E+00	0.00E+00	5.41E+00	0.00E+00	6.99E+00	1.69E+01	1.01E+01	9.87E+00	-2.88E+02
WDP ¹	[m ³ world eq. deprived]	1.15E+01	3.59E-02	3.13E-01	0.00E+00	4.21E-01	0.00E+00	9.09E-02	1.99E-02	8.30E-01	8.52E-02	-1.66E+00
Caption	GWP-total = Globale Warming Potential - total; 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 = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											
Disclaimer	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.											

* According to EN15804, the uptake of biogenic carbon from datasets describing transport, energy, detergent and water in module A2, A3, A4, B2, C2 and C4 is balanced out as it represents less than 5 weight% of the biogenic carbon in the declared product.

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 m ² TRÉ Wall Unclassified (42.76 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
PM	[Disease incidence]	4.92E-06	7.83E-08	8.15E-09	0.00E+00	2.07E-08	0.00E+00	5.38E-09	3.60E-08	1.15E-08	6.54E-08	-8.03E-07
IRP ²	[kBq U235 eq.]	3.50E+00	8.11E-03	1.25E-01	0.00E+00	2.16E-02	0.00E+00	1.83E-01	4.47E-03	1.39E-01	1.23E-02	-1.45E+00
ETP-fw ¹	[CTUe]	1.44E+03	2.29E+01	2.31E+00	0.00E+00	5.49E+00	0.00E+00	2.03E+00	1.26E+01	9.04E+00	6.32E+00	-2.46E+02
HTP-c ¹	[CTUh]	8.32E-07	4.62E-10	1.14E-10	0.00E+00	3.77E-10	0.00E+00	1.14E-10	2.54E-10	-6.56E-11	1.42E-10	-2.72E-09
HTP-nc ¹	[CTUh]	5.30E-07	2.07E-08	3.33E-09	0.00E+00	1.05E-08	0.00E+00	1.74E-09	1.14E-08	1.07E-08	5.25E-09	-1.33E-07
SQP ¹	-	1.72E+03	1.50E+01	2.57E+00	0.00E+00	4.02E+00	0.00E+00	2.96E+00	8.32E+00	7.06E+00	2.67E+00	-5.49E+01
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											
Disclaimers	¹ The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.											
	² 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.											

RESOURCE USE PER 1 m ² TRÉ Wall Unclassified (42.76mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
PERE	[MJ]	8.38E+01	2.63E+00	7.85E+01	0.00E+00	1.81E+00	0.00E+00	5.06E+00	1.46E+00	5.02E+01	1.71E+00	-5.34E+01
PERM	[MJ]	1.17E+02	0.00E+00	-7.11E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-4.62E+01	0.00E+00	0.00E+00
PERT	[MJ]	2.01E+02	2.63E+00	7.37E+00	0.00E+00	1.81E+00	0.00E+00	5.06E+00	1.46E+00	4.00E+00	1.71E+00	-5.34E+01
PENRE	[MJ]	1.09E+03	3.08E+01	2.13E+01	0.00E+00	5.41E+00	0.00E+00	6.99E+00	1.69E+01	3.71E+01	9.87E+00	-2.88E+02
PENRM	[MJ]	3.73E+01	0.00E+00	-7.60E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-2.70E+01	0.00E+00	0.00E+00
PENRT	[MJ]	1.13E+03	3.08E+01	1.37E+01	0.00E+00	5.41E+00	0.00E+00	6.99E+00	1.69E+01	1.01E+01	9.87E+00	-2.88E+02
SM	[kg]	3.80E+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
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
FW	[m ³]	3.14E-01	2.93E-03	8.55E-03	0.00E+00	9.82E-03	0.00E+00	3.85E-03	1.62E-03	2.12E-02	2.60E-03	-2.81E-02
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources 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 excluding non renewable primary 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 material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 m ² TRÉ Wall Unclassified (42.76 mm)												
Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
HWD	[kg]	2.17E-01	1.18E-09	7.02E-09	0.00E+00	1.09E-10	0.00E+00	1.01E-08	6.47E-10	8.05E-09	2.46E-09	-8.40E-08
NHWD	[kg]	1.01E+01	5.01E-03	8.07E-02	0.00E+00	1.77E-02	0.00E+00	5.78E-03	2.76E-03	3.16E-01	4.88E+01	-4.21E+00
RWD	[kg]	1.94E-02	5.59E-05	7.62E-04	0.00E+00	1.06E-05	0.00E+00	1.12E-03	3.08E-05	8.12E-04	1.05E-04	-8.94E-03

CRU	[kg]	0.00E+00	0.00E+00	3.80E+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]	1.61E+00	0.00E+00	8.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.06E+01	0.00E+00	0.00E+00
MER	[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
EEE	[MJ]	3.44E+00	0.00E+00	3.49E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.11E+00	0.00E+00	0.00E+00
EET	[MJ]	6.43E+00	0.00E+00	6.27E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E+01	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy											
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 ² or 195, while 1,12E-11 is the same as 1,12*10 ⁻¹¹ or 0,0000000000112.											

BIOGENIC CARBON CONTENT PER 1 m ² TRÉ Wall Unclassified (42.76 mm)		
Parameter	Unit	At the factory gate
Biogenic carbon content in product	[kg C]	1.42
Biogenic carbon content in accompanying packaging	[kg C]	1.95
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂	

Additional information

LCA interpretation

The results of this EPD are calculated based on 1 m² TRÉ Wall Unclassified system with the thickness; 10-12.76 mm, 16.76-17.52 mm, 21.52 mm and 42.76 mm. The calculated results reflect that the production of glass panes entails the greatest environmental impacts for the systems. This can be expected as the glass accounts for 90-94% of the weight. In addition to this, the production of glass is very energy and material intensive.

Technical information on scenarios

Transport to the building site (A4)

Scenario information	Truck	Ship	Unit
Fuel type	Diesel	Heavy fuel oil	-
Vehicle type	Truck, Euro 5, 26 - 28t gross weight / 18.4t payload capacity	Container ship, 5.000 to 200.000 dwt payload capacity, deep sea	-
Transport distance ⁷	265	23	km
Capacity utilisation (including empty runs)	42.5	42.5	%
Gross density of products transported	33.2-62.8		kg/m ²

Installation of the product in the building (A5)

Scenario information	Value	Unit
Ancillary materials	0	kg
Water use	0	m ³
Other resource use	0	kg
Energy type and consumption	0.76	kWh (electricity)
Waste materials	5.31-5.35	kg
Output materials	33.2-62.8	kg
Direct emissions to air, soil or water	0	kg

Reference service life

RSL information		Unit
Reference service Life	30	Years
Maintenance (cleaning)	Cleaning 3 times a year during the RSL	-

⁷ Distances are based on a weighted average of the market share of a consumer and the distance to the consumer.

Use (B1-B7) – B2 Maintenance

Scenario information	Value	Unit
B2 - Maintenance		
Maintenance process	The partition systems are assumed cleaned 3 times a year with mild cleaning agent.	-
Maintenance cycle	3	/year
Ancillary materials for maintenance (cleaning agent)	0.001	kg/cycle
Waste materials resulting from maintenance (water and cleaning agent)	0.201	Kg/cycle
Net freshwater consumption during maintenance	0.2	l/cycle
Energy input during maintenance	0	kWh

End of life (C1-C4)

Scenario information	12.76	17.52	21.52	42.76	Unit
Collected separately	32.98	43.47	53.17	62.56	kg
Collected with mixed waste	0	0	0	0	kg
For reuse	0	0	0	0	kg
For recycling with credit in module D	8.7	11.6	14.5	17.44	kg
For recycling without credit in module D	0	0	0	0	kg
For energy recovery	3.4	3.7	3.7	3.7	kg
For final disposal (landfilling)	20.9	28.2	34.9	42.0	kg

Re-use, recovery and recycling potential (D)

Module	Scenario information/Material	Value	Unit
A5 (Packaging)	Materials sent for recycling	0.01	kg
	Energy recovery from waste incineration (electricity)	2.5	MJ
	Energy recovery from waste incineration (thermal)	4.4	MJ
A5 (Wood cut-off)	Energy recovery from waste incineration (electricity)	1.3 - 1.4	MJ
	Energy recovery from waste incineration (thermal)	2.4 - 2.6	MJ
C3 (declared product)	Materials sent for recycling	8.7 – 17.4	kg
	Energy recovery from waste incineration (electricity)	7.2 - 7.7	MJ
	Energy recovery from waste incineration (thermal)	12.9 - 13.8	MJ

Indoor air

The EPD does not give information on release of dangerous substances to indoor air because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.1.

Soil and water

The EPD does not give information on release of dangerous substances to soil and water because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.2.

References

Publisher	 www.epddanmark.dk <small>Template version 2024.2</small>
Programme operator	Danish Technological Institute Gregersensvej DK-2630 Taastrup www.teknologisk.dk
LCA-practitioner	<i>Kasper Brodersen Møller Artelia A/S Mariane Thomsens Gade 1c 8000 Aarhus C Denmark</i>
LCA software /background data	<i>Sphera LCA for Experts vers. 10.9, professional database, version 2024.2</i> <i>EcoInvent vers. 3.10</i> <i>EN 15804 reference package 3.1</i>
3rd party verifier	<i>Linda Høibye Life Cycle Assessment Consulting</i> Verified according to Verification Checklist 1 v. 2.9

General programme instructions

General Programme Instructions, version 2.0, spring 2020
www.epddanmark.dk

EN 15804

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

EN 17074

DS/EN 17074:2019 – "Glass in building – Environmental product declaration – Product category rules for flat glass products"

EN 16485

EN16485:2014 "Round and sawn timber - Environmental Product Declarations - Product category rules for wood and wood-based products for use in construction"

DS/EN ISO 10140-2

Acoustics – Laboratory measurement of sound insulation of building elements – Part 2: Measurement of airborne sound insulation (ISO 10140-2:2021)

EN 15942

DS/EN 15942:2011 – “ Sustainability of construction works – Environmental product declarations – Communication format business-to-business”

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EPD no.: MD-24067-EN

ISO 14025

DS/EN ISO 14025:2010 – “ Environmental labels and declarations – Type III environmental declarations – Principles and procedures”

ISO 14040

DS/EN ISO 14040:2008 – “ Environmental management – Life cycle assessment – Principles and framework”

ISO 14044

DS/EN ISO 14044:2008 – “ Environmental management – Life cycle assessment – Requirements and guidelines”