epddanmark

ECO PLATFORM EPD VERIFIED

Owner: CHAT BOARD A/S
No.: MD-25184-EN
Issued: 22-01-2026
Valid to: 22-01-2031

3rd PARTY **VERIFIED**

EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | **ISO 14025 & EN 15804**





Owner of declaration
CHAT BOARD A/S
Tempovej 10 C, 2750 Ballerup, Denmark
CVR: 15 80 62 30
https://chat-board.dk/

Programme
EPD Danmark
www.epddanmark.dk

☐ Industry EPD
☒ Product EPD

☐ Product specific
☒ Average
☐ Worst Case

Declared products
CHAT BOARD® Classic; CHAT BOARD® Matt; CHAT BOARD® Elements; CHAT BOARD® Ambit; CHAT BOARD® Orbit; CHAT BOARD® CUSTOMIZED.

Number of declared datasets/product variations: 6

Production site
Tempovej 10 C, 2750 Ballerup, Denmark

Use of Guarantees of Origin
☐ No certificates used
☒ Electricity covered by GoO
☐ Biogas covered by GoO

Declared/ functional unit
1 m^2 wall magnetic writing board

Year of production site data (A3)
2024

EPD version
Version 1

Issued: 22-01-2026
Valid to: 22-01-2031

Basis of calculation
This EPD is developed and verified in accordance with the European standard EN 15804+A2.

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

CEN standard EN 15804 serves as the core PCR

Independent verification of the declaration and data, according to EN ISO 14025

☐ internal ☒ external

Third party verifier:

David Althoff Palm
Dalemarken AB

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	MND	MND	MND	MMD	MND	MND	MND	x	X	X	X	X

Product information

Product description

The main CHAT BOARD® wallhung boards components are shown in the table below.

Material	Weight-% of declared product
Glass (4 mm)	65%
Water-based paint	0.78%
Steel back frame	32%
Aluminum	1.1%
Silicon	0.25%
Double coated tape	0.29%
Magnet	0.53%
Total weight (kg)	15

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
Wood pallet	2.2	65%
EPS corners	0.012	0.36%
Cardboard box	1.2	34%
Total	4.3	100%

Representativity

This declaration, including data collection and the modeled foreground system including results, represents the production of 1 m^2 of writing magnetic boards on the production site located in Ballerup. Product specific data are based on average values representing in the year 2024. Background data are based on ecoinvent 3.11 with EN15804 add-on (released 01/2025) and are less than 10 years old. Generally, the used background datasets are of good quality, and the majority of the datasets are only a couple of years old. Most datasets are representative of Europe, and electricity is country specific. Additionally, three EPDs are used in modelling. Two are for the glass boards except for CHAT BOARD® Matt which is provided by a different supplier, and one is for the silicon used to glue the glass to the steel frame. A data quality assessment was performed as specified in Table E.1 in Annex E of EN 15804 + A2 which follows the UN Environmental Global Guidance on LCA database development.

Hazardous substances

CHAT BOARD® Classic, CHAT BOARD® Matt, CHAT BOARD® Elements, CHAT BOARD® Ambit, CHAT BOARD® Orbit, and CHAT BOARD® CUSTOMIZED do 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 selection of CHAT BOARD® wall-mounted magnetic boards are made with 4 mm tempered safety glass glued to a steel frame. They can be mounted both horizontally and vertically on the wall, are easily switched from one orientation to another. They come in a variety of standard sizes and colors. CHAT BOARD® Classic comes in 13 different sizes, CHAT BOARD® Matt comes in 11 sizes, CHAT BOARD® Elements is available in 6 sizes, CHAT BOARD® Ambit comes in 2 sizes, and CHAT BOARD® Orbit is available in 3 sizes. Furthermore, all the above products can be customized. CHAT BOARD® CUSTOMIZED can be made in other colors, sizes, edges, corners, shapes, etc.

Essential characteristics

The writing boards are covered by harmonised technical specification DS/EN 14434:2010 for which they meet the requirements in terms of strength and safety. Declaration of performance according to EU regulation is available for all declared product variations.

Further technical information can be obtained by contacting CHAT BOARD A/S or on the manufacturer website:

https://chat-board.dk/contact/

Reference Service Life (RSL)

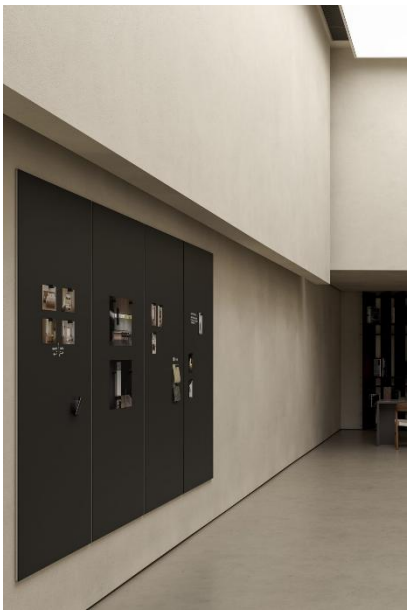
The estimated service life (ESL) of this glazed partition is 15 years for standard indoor use at normal room temperature and moisture level.

This ESL represents the installed product's minimum expected average service.

Picture of product(s)







LCA background

Declared unit

The LCI and LCIA results in this EPD relate to 1 m^2 of CHAT BOARD magnetic wallhung glassboard for the following products: Classic, Matt, Elements, Ambit, Orbit and CUSTOMIZED.

Name	Value	Unit
Declared unit	1	m^2
Conversion factor into kg	0.065	m^2/kg

As Classic, Elements, Ambit, Orbit variants have the same inventory for sqm, thus one set of results is presented for them. While Matt variant has a different glass supplier, and due to this its results could not be grouped to the other products and are presented separately.

Functional unit

Not defined.

Material properties

Name	Mass factor (kg/DU)	[Other mandatory property] ([Unit])
Classic	15	Thickness: 16 mm Thickness only glass: 4 mm
CUSTOMIZED	15	Thickness: 16 mm Thickness only glass: 4 mm
Matt	15	Thickness: 16 mm Thickness only glass: 4 mm
Elements	15	Thickness: 16 mm Thickness only glass: 4 mm
Ambit	15	Thickness: 16 mm Thickness only glass: 4 mm
Orbit	15	Thickness: 16 mm Thickness only glass: 4 mm

PCR

This EPD is developed according to the core rules for the product category of construction products in EN 15804:2012+A2:2019, and the NPCR 026:2024 – "Part B for Furniture and components of furniture (references to EN 15804+A2) version 3.0" by epd-norge is also used.

Conversion factors

The results can be used for other sizes of the products declared by using the conversion factors below. CHAT BOARD® CUSTOMIZED is not reported in the table below as it represents that all the wall magnetic boards products can be customized in other colors, sizes, edges, corners, shapes, etc.

Name	W x H (in mm)	Weight (kg)	Conversion factor
CHAT BOARD® Classic	800 x 500	6.1	0.40
	695 x 695	7.4	0.48
	900 x 700	9.7	0.63
	1200 x 585	11	0.70
	1500 x 600	14	0.90
	1000 x 1000	15	1
	1200 x 900	17	1.08
	1200 x 1200	22	1.44
	1500 x 1000	23	1.50
	1500 x 1200	28	1.80
	2000 x 1000	31	2.00
	2000 x 1200	37	2.40
	2400 x 1200	44	2.88
CHAT BOARD® Matt	900 x 700	9.7	0.63
	1200 x 585	11	0.70
	1500 x 600	14	0.90
	1000 x 1000	15	1
	1200 x 900	17	1.08
	1200 x 1200	22	1.44
	1500 x 1000	23	1.50
	1500 x 1200	28	1.80
	2000 x 1000	31	2.00
	2000 x 1200	37	2.40

	2400 x 1200	44	2.88
CHAT BOARD® Elements	1000 x 1000	15	1
	1200 x 900	17	1.08
	1500 x 1000	23	1.50
	1500 x 1200	28	1.80
	2000 x 1000	31	2.00
	2000 x 1200	37	2.40
CHAT BOARD® Ambit	1400 x 700	14	0.87
	1800 x 900	23	1.45
Name	**Ø (in mm)**	**Weight (kg)**	**Conversion factor**
CHAT BOARD® Orbit	700	6.2	0.38
	900	10	0.64
	1200	18	1.1

Energy modelling principles

Foreground system:

The semi-finished products (e.g., glass board, steel frame) are assembled using wind energy covered by a GO certificate from Ørsted which covers 100% of CHAT BOARD´s electricity consumption on site. Remaining energy consumption process is modelled using a process for conventional natural gas power plant in Denmark.

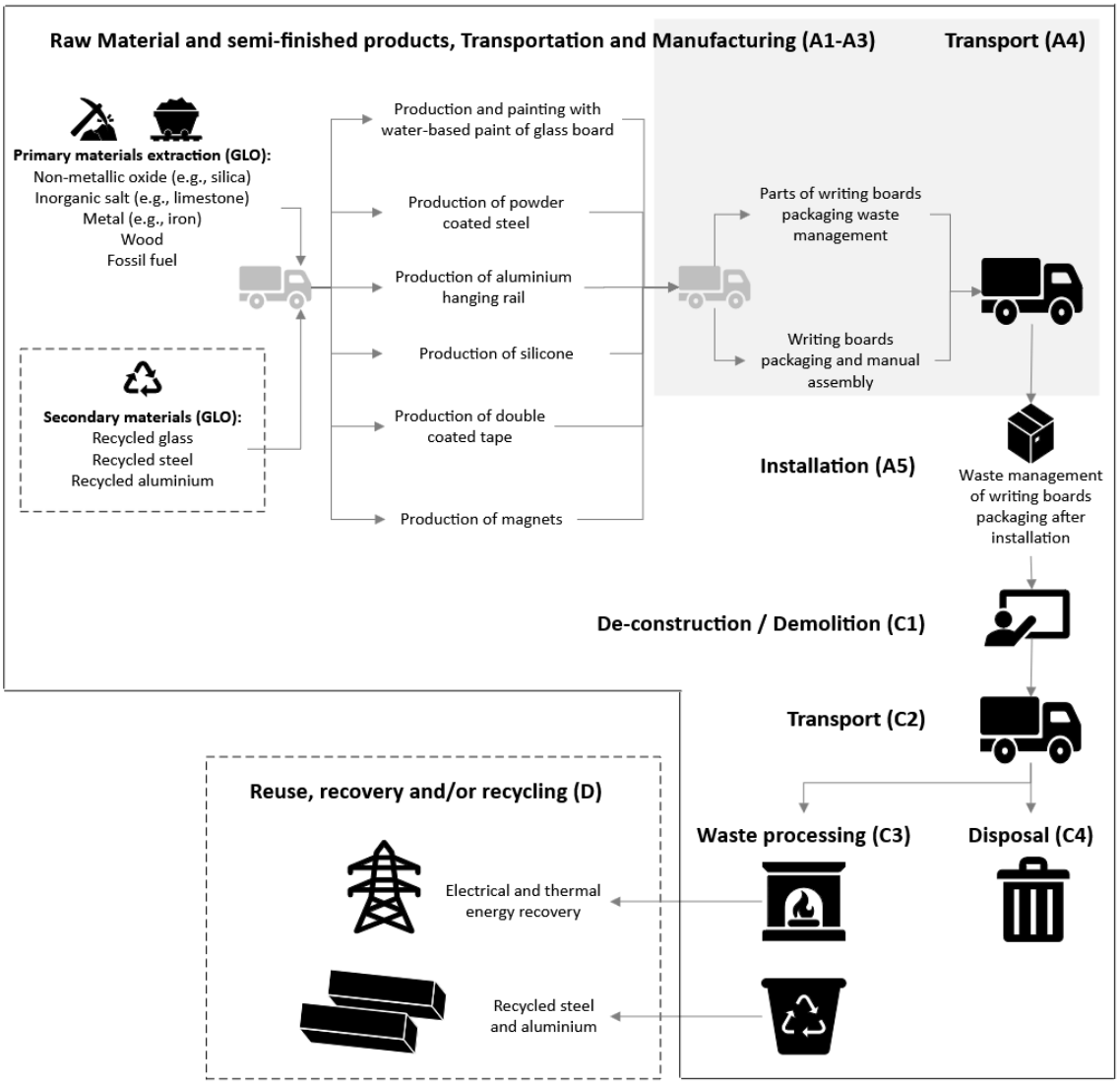
Information about the energy mix in the foreground system:

Energy mix	EF	Unit
Electricity from wind	0.020	kg CO_2e/kWh
Natural gas	0.026	kg CO_2e/MJ

Background system:

Ecoinvent 3.11 Cut-off with EN15804 add-on database is used for all background process data. All upstream processes in modules A1-A3 including electricity use with specific consumption provided by suppliers consider country-specific residual mix. While, all other processes are modelled using generic datasets that consider average electricity grid mix for a given country or region are used.

Flowdiagram



System boundary

This EPD is based on a cradle-to-gate LCA with options, modules C1-C4 and D, in which 100 weight-% has been accounted for. Moreover, one complete, realistic and representative scenario for each relevant module (A4, A5, B1–B7, C1–C4, and D) is presented and justified with assumptions.

The general rules for the exclusion of inputs and outputs follows the requirements in EN 15804, 6.3.5, where the total of neglected input flows per module shall be a maximum of 5 % of energy usage and mass and 1 % of energy usage and mass for unit processes.

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, 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 declared products are made of tempered and painted glass boards of 4 mm thickness. This part is supplied by an European manufacturer, except for CHAT BOARD® Matt´s glass board, which is provided by a another European manufacturer. This is glued to a powder coated steel back frame to make the writing board magnetic. This is done by using silicon and double coated tape. Additionally, an aluminum hanging rail and a set of magnets are used during the mounting of the boards to the wall.

Module A1 includes both the production of the semi-finished products and their relative packaging.

Module A2 accounts for transportation of all materials and packaging from multiple suppliers to CHAT BOARD production site in Ballerup. All transportation distances were estimated using software such as Google Maps.

Module A3 accounts for the manual assembly of the declared products. In addition, packaging production and waste disposal are also reported in this module. There is no energy used in the foreground system as the assembly of the writing boards occurs manually by the application of the silicon and tape to attach the glass board to the metallic frame. The company logo stickers has been excluded from the analysis due to its expected minimal contribution.

Data was provided by the manufacturer and calculated through physical allocation, based on production quantities in 2024.

Construction process stage (A4-A5) includes:

Module A4 represents the transport of the declared products to the customer. It was assumed the same distribution within the EU market for all writing boards based on revenue by country in 2024.

The installation of the writing boards and additional packaging disposal are reported in module A5. This process requires electric hand tools and screws, which have not been included in this assessment due to their expected minimal contribution. The biogenic carbon stored in the kraft paper, cardboard box and wood pallet used for packaging is released.

End of Life (C1-C4) includes:

In module C1 the disassembly of the writing boards is considered. However, it is considered to be cut-off from the system model due to negligible impacts.

In module C2, the transport of the declared products to waste processing facilities (module C3 and C4) is reported.

This LCA assumes the most likely scenario in an European context, where the powder coated steel frame is recycled, the glass board and residues from metal recycling are landfilled, whilst the remaining materials (e.g., wood pallet, plastics) are incinerated.

In module C2, the transport of the declared product to waste processing facilities (module C3 and C4) is reported. The distance from the place of use of the declared products to the waste management facility (landfill, waste-to-energy or recycling plant) is assumed to be 61.68 km and is taken from the average value of these datasets.

Module C3 covers the recycling of 88% of the powder coated steel frame and the aluminum hanging rail is lost during sorting. During the recycling process slags and residues are formed, and these are further considered in module C4.

Module C4 accounts for the final disposal of shattered painted glass, silicon, double coated tape, glue and the powder coating remaining from remelting of steel.

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

Recycling and incinerating materials and packaging have potential benefits and loads beyond the system boundary. The credits for recycling and incinerating the materials are presented in module D.

Recycling of steel frame and aluminum hanging rail is assumed to substitute the extraction of primary raw materials. Electricity and thermal energy generated during incineration is assumed to replace the average European electricity mix and heating from natural gas, respectively.

LCA results

CHAT BOARD® Classic, Elements, Ambit, Orbit and CUSTOMIZED

ENVIRONMENTAL IMPACTS PER 1 m²									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO2 eq.	3.8E+01	2.7E+00	6.5E+00	0.0E+00	9.2E-03	2.7E-01	7.4E-01	-6.9E+00
GWP-fossil	kg CO2 eq.	4.2E+01	2.7E+00	1.1E-01	0.0E+00	9.2E-03	1.6E-01	7.4E-01	-6.9E+00
GWP-biogenic	kg CO2 eq.	-4.3E+00	1.7E-03	6.4E+00	0.0E+00	5.7E-06	1.1E-01	9.9E-06	-4.8E-03
GWP-luluc	kg CO2 eq.	1.2E-01	9.5E-04	2.5E-05	0.0E+00	3.3E-06	1.1E-04	5.0E-06	-3.4E-03
ODP	kg CFC 11 eq.	1.2E-06	6.0E-08	1.1E-09	0.0E+00	2.0E-10	1.8E-09	7.3E-10	-7.6E-08
AP	mol H+ eq.	4.6E-01	6.3E-03	8.3E-04	0.0E+00	2.1E-05	7.3E-04	2.4E-03	-2.4E-02
EP-freshwater	kg P eq.	1.7E-02	1.9E-04	2.7E-05	0.0E+00	6.7E-07	4.9E-05	1.6E-06	-2.8E-03
EP-marine	kg N eq.	4.9E-02	1.6E-03	4.4E-04	0.0E+00	5.1E-06	4.9E-04	1.1E-03	-5.5E-03
EP-terrestrial	mol N eq.	1.7E+00	1.7E-02	4.1E-03	0.0E+00	5.6E-05	2.4E-03	1.2E-02	-5.7E-02
POCP	kg NMVOC eq.	1.5E-01	1.0E-02	1.0E-03	0.0E+00	3.4E-05	7.3E-04	4.1E-03	-2.0E-02
ADPm1	kg Sb eq.	1.3E-03	9.2E-06	2.1E-07	0.0E+00	3.2E-08	2.1E-06	1.8E-08	-1.4E-05
ADPf1	MJ	5.8E+02	3.9E+01	7.1E-01	0.0E+00	1.3E-01	1.5E+00	6.4E-01	-8.7E+01
WDP[1]	m^3 world eq. deprived	2.0E+01	2.2E-01	1.9E-01	0.0E+00	7.5E-04	3.1E-02	1.4E-02	-8.7E-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 = Acidifcation; 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.								

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 m²									
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG	kg CO2 eq.	4.2E+01	2.7E+00	1.2E-01	0.0E+00	9.2E-03	2.1E-01	7.4E-01	-6.9E+00
PM	[Disease incidence]	5.1E-06	2.2E-07	8.5E-09	0.0E+00	7.5E-10	1.2E-08	2.2E-08	-4.1E-07
IRP[2]	[kBq U235 eq.]	3.3E+00	4.9E-02	1.0E-03	0.0E+00	1.7E-04	1.3E-02	2.7E-04	-5.4E-01
ETP-fw[1]	[CTUe]	5.4E+02	5.2E+00	2.4E+00	0.0E+00	1.8E-02	1.2E+00	9.7E+00	-1.7E+01
HTP-c[1]	[CTUh]	4.2E-08	4.5E-10	1.9E-10	0.0E+00	1.5E-12	9.6E-11	6.6E-09	-7.8E-09
HTP-nc[1]	[CTUh]	5.4E-07	2.5E-08	1.0E-08	0.0E+00	8.4E-11	3.2E-09	2.8E-08	-2.6E-08
SQP[1]	-	6.2E+02	2.9E+01	2.1E-01	0.0E+00	1.0E-01	4.7E+00	5.1E+00	-1.5E+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 m²

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	[MJ]	7.1E+01	6.6E-01	6.3E+01	0.0E+00	2.3E-03	1.6E-01	4.0E-03	-5.9E+00
PERM	[MJ]	6.4E+01	0.0E+00	-6.3E+01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PERT	[MJ]	1.3E+02	6.6E-01	2.3E-02	0.0E+00	2.3E-03	1.6E-01	4.0E-03	-5.9E+00
PENRE	[MJ]	5.8E+02	3.9E+01	1.2E+00	0.0E+00	1.3E-01	1.5E+00	6.4E-01	-8.7E+01
PENRM	[MJ]	2.2E+00	0.0E+00	-4.6E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PENRT	[MJ]	5.8E+02	3.9E+01	7.1E-01	0.0E+00	1.3E-01	1.5E+00	6.4E-01	-8.7E+01
SM	[kg]	6.2E+00	3.9E-02	2.8E-03	0.0E+00	1.3E-04	4.9E+00	3.7E-04	-3.7E-01
RSF	[MJ]	7.8E-01	9.4E-03	1.7E-04	0.0E+00	3.2E-05	3.5E-03	3.8E-05	-1.5E-01
NRSF	[MJ]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
FW	[m³]	4.4E-01	5.0E-03	2.0E-03	0.0E+00	1.7E-05	5.1E-04	4.1E-05	-2.2E-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 m²

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	[kg]	8.2E+00	4.0E-02	3.7E-02	0.0E+00	1.4E-04	9.3E-03	5.7E-04	-1.1E-01
NHWD	[kg]	8.9E+01	4.2E-01	4.4E+00	0.0E+00	1.5E-03	3.7E-01	1.0E+01	-9.8E-01
RWD	[kg]	1.7E-03	1.2E-05	2.6E-07	0.0E+00	4.2E-08	3.3E-06	6.7E-08	-1.4E-04
CRU	[kg]	0.0E+00	0.0E+00	8.4E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MFR	[kg]	3.4E+00	3.4E-02	1.6E-03	0.0E+00	1.2E-04	8.8E-03	3.0E-04	-1.1E+00
MER	[kg]	3.4E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EEE	[MJ]	0.0E+00	0.0E+00	6.30E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EET	[MJ]	0.0E+00	0.0E+00	6.30E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+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.

ENVIRONMENTAL IMPACTS PER 1 m²									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO2 eq.	4.4E+01	2.7E+00	6.5E+00	0.0E+00	9.2E-03	2.7E-01	7.4E-01	-6.9E+00
GWP-fossil	kg CO2 eq.	4.9E+01	2.7E+00	1.1E-01	0.0E+00	9.2E-03	1.6E-01	7.4E-01	-6.9E+00
GWP-biogenic	kg CO2 eq.	-4.2E+00	1.7E-03	6.4E+00	0.0E+00	5.7E-06	1.1E-01	9.9E-06	-4.8E-03
GWP-luluc	kg CO2 eq.	1.1E-01	9.5E-04	2.5E-05	0.0E+00	3.3E-06	1.1E-04	5.0E-06	-3.4E-03
ODP	kg CFC 11 eq.	1.0E-06	6.0E-08	1.1E-09	0.0E+00	2.0E-10	1.8E-09	7.3E-10	-7.6E-08
AP	mol H+ eq.	5.5E-01	6.3E-03	8.3E-04	0.0E+00	2.1E-05	7.3E-04	2.4E-03	-2.4E-02
EP-freshwater	kg P eq.	1.9E-02	1.9E-04	2.7E-05	0.0E+00	6.7E-07	4.9E-05	1.6E-06	-2.8E-03
EP-marine	kg N eq.	6.2E-02	1.6E-03	4.4E-04	0.0E+00	5.1E-06	4.9E-04	1.1E-03	-5.5E-03
EP-terrestrial	mol N eq.	1.8E+00	1.7E-02	4.1E-03	0.0E+00	5.6E-05	2.4E-03	1.2E-02	-5.7E-02
POCP	kg NMVOC eq.	1.9E-01	1.0E-02	1.0E-03	0.0E+00	3.4E-05	7.3E-04	4.1E-03	-2.0E-02
ADPm1	kg Sb eq.	1.4E-03	9.2E-06	2.1E-07	0.0E+00	3.2E-08	2.1E-06	1.8E-08	-1.4E-05
ADPf1	MJ	6.3E+02	3.9E+01	7.1E-01	0.0E+00	1.3E-01	1.5E+00	6.4E-01	-8.7E+01
WDP[1]	m³ world eq. deprived	2.0E+01	2.2E-01	1.9E-01	0.0E+00	7.5E-04	3.1E-02	1.4E-02	-8.7E-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 = Acidifcation; 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.								

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 m²									
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG	kg CO2 eq.	4.9E+01	2.7E+00	1.2E-01	0.0E+00	9.2E-03	2.1E-01	7.4E-01	-6.9E+00
PM	[Disease incidence]	6.1E-06	2.2E-07	8.5E-09	0.0E+00	7.5E-10	1.2E-08	2.2E-08	-4.1E-07
IRP[2]	[kBq U235 eq.]	3.4E+00	4.9E-02	1.0E-03	0.0E+00	1.7E-04	1.3E-02	2.7E-04	-5.5E-01
ETP-fw[1]	[CTUe]	5.7E+02	5.2E+00	2.4E+00	0.0E+00	1.8E-02	1.2E+00	9.7E+00	-1.7E+01
HTP-c[1]	[CTUh]	4.1E-08	4.5E-10	1.9E-10	0.0E+00	1.5E-12	9.6E-11	6.6E-09	-7.8E-09
HTP-nc[1]	[CTUh]	5.7E-07	2.5E-08	1.0E-08	0.0E+00	8.4E-11	3.2E-09	2.8E-08	-2.6E-08
SQP[1]	-	6.4E+02	2.9E+01	2.1E-01	0.0E+00	1.0E-01	4.7E+00	5.1E+00	-1.5E+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 m²									
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	7.3E+01	6.6E-01	6.3E+01	0.0E+00	2.3E-03	1.6E-01	4.0E-03	-5.9E+00
PERM	[MJ]	6.4E+01	0.0E+00	-6.3E+01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PERT	[MJ]	1.4E+02	6.6E-01	2.3E-02	0.0E+00	2.3E-03	1.6E-01	4.0E-03	-5.9E+00
PENRE	[MJ]	6.3E+02	3.9E+01	1.2E+00	0.0E+00	1.3E-01	1.5E+00	6.4E-01	-8.7E+01
PENRM	[MJ]	2.2E+00	0.0E+00	-4.6E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PENRT	[MJ]	6.3E+02	3.9E+01	7.1E-01	0.0E+00	1.3E-01	1.5E+00	6.4E-01	-8.7E+01
SM	[kg]	1.2E+01	3.9E-02	2.8E-03	0.0E+00	1.3E-04	4.9E+00	3.7E-04	-3.7E-01
RSF	[MJ]	7.1E-01	9.4E-03	1.7E-04	0.0E+00	3.2E-05	3.5E-03	3.8E-05	-1.5E-01
NRSF	[MJ]	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
FW	[m^3]	4.5E-01	5.0E-03	2.0E-03	0.0E+00	1.7E-05	5.1E-04	4.1E-05	-2.2E-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 m²									
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	6.8E+00	4.0E-02	3.7E-02	0.0E+00	1.4E-04	9.3E-03	5.7E-04	-1.1E-01
NHWD	[kg]	9.2E+01	4.2E-01	4.4E+00	0.0E+00	1.5E-03	3.7E-01	1.0E+01	-9.8E-01
RWD	[kg]	1.0E-03	1.2E-05	2.6E-07	0.0E+00	4.2E-08	3.3E-06	6.7E-08	-1.4E-04
CRU	[kg]	0.0E+00	0.0E+00	8.4E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MFR	[kg]	3.3E+00	3.4E-02	1.6E-03	0.0E+00	1.2E-04	8.8E-03	3.0E-04	-1.1E+00
MER	[kg]	0.0E+00	0.0E+00	8.4E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EEE	[MJ]	0.0E+00	0.0E+00	6.89E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EET	[MJ]	0.0E+00	0.0E+00	6.89E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+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 m²

		Classic	CUSTOMIZED	Elements	Ambit	Orbit	Matt
Parameter	**Unit**	**At the factory gate**					
Biogenic carbon content in product	[kg C]	None	None	None	None	None	None
Biogenic carbon content in accompanying packaging	[kg C]	1.8	1.8	1.8	1.8	1.8	1.8
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2						

Additional information

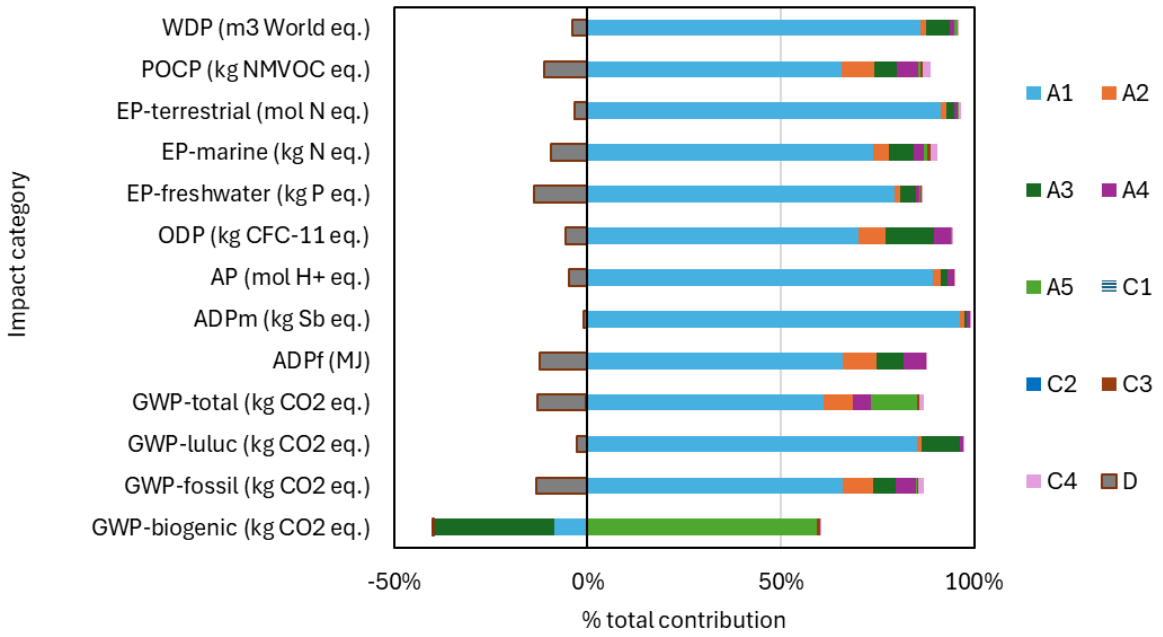
LCA interpretation

The production of the steel frame is the process that contributes the most to the majority of impact categories. This is understandable given that it is included in this study as a semi-finished product and constitutes a significant portion of the overall weight of the writing boards (see table in *Product Description*, weight % of glass board is 32%). For the impact categories where the glass board does not account for the majority of the contribution, there is considerable variation in which processes contribute the most. For example, for GWP-biogenic incineration of waste wood is the most contributing process, while for GWP-luluc (Global Warming Potential - land use and land use change) is the water-based paint applied to the glass boards.

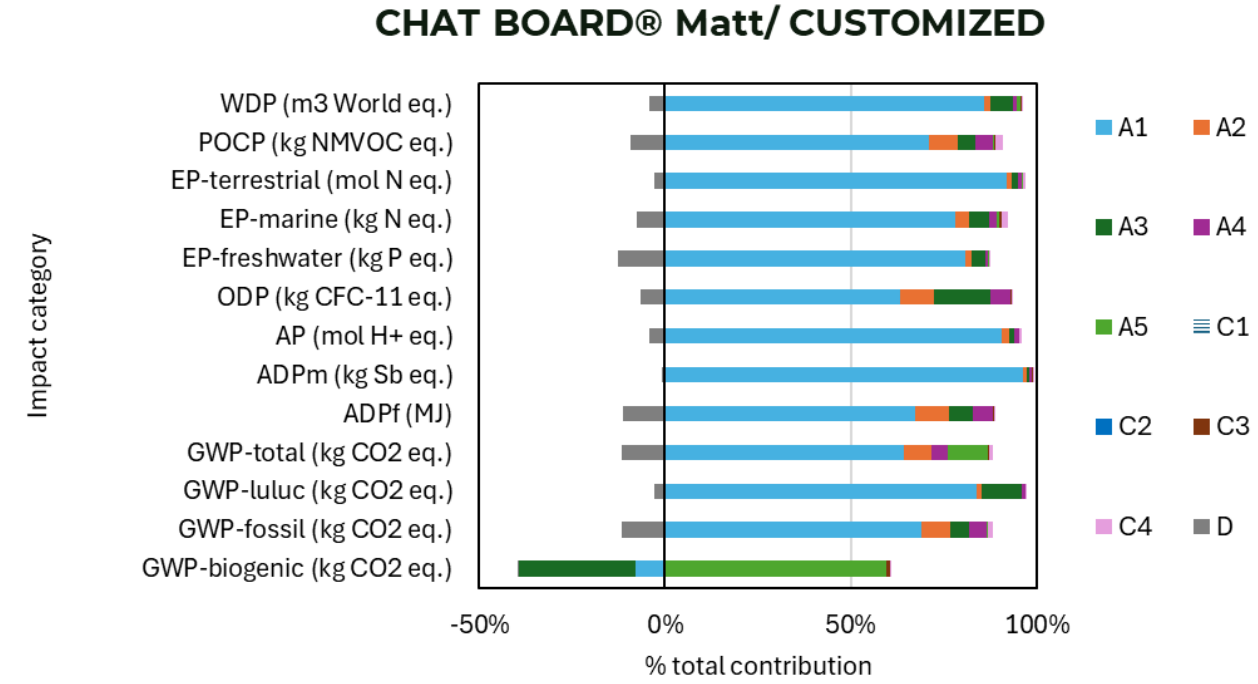
Examining the contributions of the various modules to the individual impact categories, it is evident that module A1 is where the majority of contributions to most impact categories occur. For all impact categories, except GWP-biogenic (Global Warming Potential - biogenic), over 50% of the total contribution occurs in the A1 module. For this impact category, the main contributor is module-A5, where the incineration of waste wood packaging occurs. Moreover, the biogenic carbon in the paper and wood is almost in balance across the life cycle, as carbon sequestered in the wood is released once these materials are incinerated.

In summary, the contributions to the environmental impact of the wall hanging writing boards are heavily dominated by the A1 module, which encompasses the extraction and processing of raw materials. This stage is critical for a wide range of environmental impact categories, underscoring the importance of focusing on sustainable material sourcing and efficient manufacturing processes.

CHAT BOARD® Classic/ Ambit/ Orbit/ Elements/ CUSTOMIZED



CHAT BOARD® Matt/ CUSTOMIZED



Technical information on scenarios

Transport to the building site (A4) by lorry

	Classic	CUSTOMIZED	Elements	Ambit	Orbit	Matt	
Scenario information	Value						Unit

Fuel type	Diesel low-sulfur	Diesel low-sulfur	Diesel low-sulfur	Diesel low-sulfur	Diesel low-sulfur	Diesel low-sulfur	-
Vehicle type	EURO6 lorry 16-32 mentric ton	EURO6 lorry 16-32 mentric ton	EURO6 lorry 16-32 mentric ton	EURO6 lorry 16-32 mentric ton	EURO6 lorry 16-32 mentric ton	EURO6 lorry 16-32 mentric ton	-
Transport distance	2172	2172	2172	2172	2172	2172	km
Capacity utilisation (including empty runs)	64%	64%	64%	64%	64%	64%	%
Gross density of products transported	956	956	956	956	956	928	kg/m^3

Transport to the building site (A4) by ship

	Classic	CUSTOMIZED	Elements	Ambit	Orbit	Matt	
Scenario information	Value						Unit
Fuel type	Heavy fuel oil	Heavy fuel oil	Heavy fuel oil	Heavy fuel oil	Heavy fuel oil	Heavy fuel oil	-
Vehicle type	Container ship	Container ship	Container ship	Container ship	Container ship	Container ship	-
Transport distance	46	46	46	46	46	46	km
Capacity utilisation (including empty runs)	100%	100%	100%	100%	100%	100%	%
Gross density of products transported	956	956	956	956	956	928	kg/m^3

Installation of the product in the building (A5)

	Classic	CUSTOMIZED	Elements	Ambit	Orbit	Matt	
Scenario information	Value						Unit
Ancillary materials	None	None	None	None	None	None	kg
Water use	None	None	None	None	None	None	m^3
Other resource use	None	None	None	None	None	None	kg
Energy type and consumption	None	None	None	None	None	None	kWh
Waste materials	5.8	5.8	5.8	5.8	5.8	5.8	kg
Output materials	None	None	None	None	None	None	kg
Direct emissions to air, soil or water	None	None	None	None	None	None	kg

End of life (C1-C4)

	Classic	CUSTOMIZED	Elements	Ambit	Orbit	Matt	
Scenario information	Value						Unit
Collected separately	0.0	0.0	0.0	0.0	0.0	0.0	kg
Collected with mixed waste	19	19	19	19	19	19	kg
For reuse	0.0	0.0	0.0	0.0	0.0	0.0	kg
For recycling	4.7	4.7	4.7	4.7	4.7	4.7	kg
For energy recovery	0.0	0.0	0.0	0.0	0.0	0.0	kg
For final disposal	10	10	10	10	10	10	kg
Assumptions for scenario development	100% landfill for glass waste, 100% recycling for metal waste						As appropriate

Re-use, recovery and recycling potential (D)

	Classic	CUSTOMIZED	Elements	Ambit	Orbit	Matt	
Scenario information/Materiel	Value						Unit
Displaced electricity, modelled as Europe market mix	7.8	7.8	7.8	7.8	7.8	7.8	MJ
Displaced thermal energy, modelled as natural gas	16	16	16	16	16	16	MJ
Displaced virgin steel from recycling	3.0	3.0	3.0	3.0	3.0	3.0	kg

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 Template version 2025.1
Programme operator	Danish Technological Institute Gregersensvej DK-2630 Taastrup www.teknologisk.dk
LCA-practitioner	Valentina Pusateri Quantified Impacts ApS Gammel Køge Landevej 55 DK-2500 Valby https://www.quantifiedimpacts.com/
LCA software /background data	*OpenLCA* *EN15804 add-on for ecoinvent 3.11, cut-off* *EN 15804 reference package 3.1, EF 3.1 characterization/ normalization and weighting factors set*
3rd party verifier	David Althoff Palm Dalemarken AB Verified according to Verification Checklist 1 v. 2.9.1

General programme instructions
General Programme Instructions, version 3.0, spring 2025
www.epddanmark.dk

Technical Rules and Guidelines
Technical Rules and Guidelines, version 1.0, spring 2025
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"

NPCR 026
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EN 15942
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