Environmental Product Declaration (EPD)
According to ISO 14025 and EN 15804+A2:2019

Custom-made melamine shelf



Registration number:	EPD-Kiwa-EE-247891-EN
Issue date:	18-09-2026
Valid until:	18-09-2031
Declaration owner:	AB Byggbeslag
Publisher:	Kiwa-Ecobility Experts
Programme operator:	Kiwa-Ecobility Experts
Status:	verified

1 General information

1.1 PRODUCT

Custom-made melamine shelf

1.2 REGISTRATION NUMBER

EPD-Kiwa-EE-247891-EN

1.3 VALIDITY

Issue date: 18-09-2026

Valid until: 18-09-2031

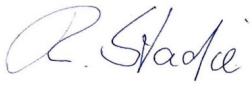
1.4 PROGRAMME OPERATOR

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13355 Berlin
DE



Raoul Mancke

(Head of programme operations, Kiwa-Ecobility Experts)



Dr. Ronny Stadie

(Verification body, Kiwa-Ecobility Experts)

1.5 OWNER OF THE DECLARATION

Declaration owner: AB Byggbeslag

Address: Säterivägen 5, 615 12 Karlstad, Sweden

E-mail: info@byggbeslag.se

Website: https://www.byggbeslag.se/

Production location: AB Byggbeslag

Address production location: Säterivägen 5, 65341 Karlstad, Sweden

1.6 VERIFICATION OF THE DECLARATION

The independent verification is in accordance with the ISO 14025:2011. The LCA is in compliance with ISO 14040:2006 and ISO 14044:2006. The EN 15804+A2:2019 serves as the core PCR.

☐ Internal ☒ External



Lucas Pedro Berman, Senda

1.7 STATEMENTS

The owner of this EPD shall be liable for the underlying information and evidence. The programme operator Kiwa-Ecobility Experts shall not be liable with respect to manufacturer data, life cycle assessment data and evidence.

1.8 PRODUCT CATEGORY RULES

Kiwa-EE GPI R.4.0 (2025)

Kiwa-EE GPI R.4.0 Annex B1 (2025)

NPCR 026 Part B for Furniture and components of furniture (references to EN 15804+A2) (version 3.0)

1.9 COMPARABILITY

In principle, a comparison or assessment of the environmental impacts of different products is only possible if they have been prepared in accordance with EN 15804+A2:2019.

1 General information

For the evaluation of the comparability, the following aspects have to be considered in particular: PCR used, functional or declared unit, geographical reference, the definition of the system boundary, declared modules, data selection (primary or secondary data, background database, data quality), scenarios used for use and disposal phases, and the life cycle inventory (data collection, calculation methods, allocations, validity period). PCRs and general program instructions of different EPD program operators may differ. Comparability needs to be evaluated. For further guidance, see EN 15804+A2:2019 and ISO 14025.

1.10 CALCULATION BASIS

LCA method R<THINK: Ecobility Experts | EN15804+A2

Characterization method: RETHINK characterization method (see references for more details)

LCA database profiles: ecoinvent (for version see references)

Version database: v3.20f (20260507)

1.11 LCA BACKGROUND REPORT

This EPD is generated on the basis of the LCA background report 'Custom-made melamine shelf' with the calculation identifier ReTHiNK-147891.

2 Product

2.1 PRODUCT DESCRIPTION

The product consists of a particle board with a melamine paper surface. The EPD declares an average product of the melamine-coated shelf with a length of one meter with edge banding on all four sides.

2.2 APPLICATION (INTENDED USE OF THE PRODUCT)

The melamine-coated shelf is intended for indoor storage.

2.3 REFERENCE SERVICE LIFE

RSL PRODUCT

The reference service life is 15 years in accordance with the relevant PCR and is used for the calculations.

USED RSL (YR) IN THIS LCA CALCULATION:

15

2.4 TECHNICAL DATA

Component	Weight %
Particle board	98
Melamine-coating	2

2.5 SUBSTANCES OF VERY HIGH CONCERN

The product in this EPD does not contain substances from the "Candidate list of substances of very high concern (SVHC) for authorization" in concentration above 0.1 %.

2.6 DESCRIPTION OF THE PRODUCTION PROCESS

Melamine-coated shelf boards are delivered to the factory. An electric forklift transports the goods to the designated area. In the workshop, they are cut to size and edge-banded according to the order. The product is then packaged and delivered to the customer.

2.7 CONSTRUCTION DESCRIPTION

The construction process is done through manual labor with hand tools.

3 Calculation rules

3.1 DECLARED UNIT

1 piece of shelf of 1 meter.

1 piece of shelf of 1 meter.

Reference unit: p

3.2 CONVERSION FACTORS

Description	Value	Unit
Reference unit	1	p
Weight per reference unit	4.460	kg
Conversion factor to 1 kg	0.224215	p

3.3 SCOPE OF DECLARATION AND SYSTEM BOUNDARIES

This is a Cradle-to-gate with options, modules C1-C4 and module D EPD. The life cycle stages included are as shown below:

(X = module included, ND = module not declared)

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X

The modules of the EN 15804 contain the following:

Module A1 = Raw material supply	Module B5 = Refurbishment
Module A2 = Transport	Module B6 = Operational energy use
Module A3 = Manufacturing	Module B7 = Operational water use
Module A4 = Transport	Module C1 = Deconstruction / Demolition
Module A5 = Construction - Installation process	Module C2 = Transport
Module B1 = Use	Module C3 = Waste Processing
Module B2 = Maintenance	Module C4 = Disposal
Module B3 = Repair	Module D = Benefits and loads beyond the product system boundaries
Module B4 = Replacement	

3.4 REPRESENTATIVENESS

This EPD is representative for the custom-made melamine shelf, a product of Byggbeslag AB.

3.5 CUT-OFF CRITERIA

In the Life cycle assessment the following cut-off criteria are applied:

3 Calculation rules

PRODUCT STAGE (A1-A3)

All input flows (e.g. raw materials, transportation, energy use, packaging, etc.) and output flows (e.g. production waste) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass.

CONSTRUCTION PROCESS STAGE (A4-A5)

All input flows (e.g. transportation to the construction site, additional raw material use for construction, installation energy (use)of energy use for assembly , etc.) and output flows (e.g. construction waste, packaging waste, etc.) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass.

END OF LIFE STAGE (C1-C4)

All input flows (e.g. energy use for demolition or disassembly, transport to waste processing, etc.) and output flows (e.g. end-of-life waste processing of the product, etc.) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass.

BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY (D)

All benefits and loads beyond the system boundary resulting from reusable products, recyclable materials and/or useful energy carriers leaving the product system are considered in this LCA.

3.6 ALLOCATION

There are no co-products produced during the manufacturing of this product. There are no allocations for the declared modules.

3.7 DATA COLLECTION & REFERENCE PERIOD

All relevant data was collected for the calendar year 2025, January to December.

3.8 ESTIMATES AND ASSUMPTIONS

The calculations have been performed in accordance with the “polluter pays” and “modularity” principles, as defined in EN 15804+A2.

The following estimates and assumptions have been made for this EPD.

The custom-made melamine-coated shelves are available in six different lengths between 600 and 2480 mm and four different widths between 300 and 600 mm. The mass of materials was calculated by dividing all used materials by all sold lengths in 2025.

The values for the energy and packaging materials are based on values given by the producer. The energy use for the electric truck, cutting and edge-banding have been measured for one piece of shelf. The customers assemble the shelf by themselves. The packaging consists of two parts: the product packaging and the packaging of the Euro pallet. The amount of packaging for the product is based on one piece of shelf (1 m). It is assumed that an average of 146 pieces of shelf fit on a Euro pallet. The packaging for the pallet is therefore calculated as one 146th of the amount given by the manufacturer for the pallet packaging.

3.9 DATA QUALITY

All data that is specific to the product and process was provided by the manufacturer for the operating year 2025 and is therefore up-to-date. The manufacturer and their production are located in Karlstad, Sweden.

Background data was taken from the Ecoinvent 3.9.1 database. The database is regularly checked and thus complies with the requirements of ISO 14040/44 (background data not older than 10 years). The background data meets the requirements of EN 15804.

The general rule was followed that specific data from specific production processes or average data derived from specific processes must be given priority when calculating an EPD or Life Cycle Assessment. Data for processes that the manufacturer cannot influence or choose, were supported by generic data.

The scenarios included are currently in use and are representative of one of the most likely scenario alternatives. According to the criteria of the "UN Environmental Global Guidance on LCA database development" mentioned in EN 15804+A2, the data quality for all three representativeness categories (geographical, technical and time) can be described as good.

3.10 POWER MIX

The energy used is the profile for Sweden's residual mix. A marked-based approach is adopted. The emission factor of the carbon footprint for the applied electricity mix is declared as 0.0786 kg CO2e/kWh.

4 Scenarios and additional technical information

4.1 TRANSPORT TO CONSTRUCTION SITE (A4)

For the transport from production place to assembly/user, the following scenario is assumed for module A4 of this EPD.

	Value and unit
Vehicle type used for transport	(ei3.9.1) Lorry (Truck) 16-32t, EURO4 | market for (EU)
Fuel type and consumption of vehicle	not available
Distance	320 km
Capacity utilisation (including empty returns)	50 % (loaded up and return empty)
Bulk density of transported products	inapplicable
Volume capacity utilisation factor	1

4.2 ASSEMBLY (A5)

The following information describes the scenarios for flows entering the system and flows leaving the system at module A5.

FLOWS ENTERING THE SYSTEM

There are no significant environment impacts as a result of materials or energy used in the construction stage (A5).

FLOWS LEAVING THE SYSTEM

The following output flows leaving the system at module A5 are assumed.

Description	Value	Unit
Output materials as result of loss during construction	3	%
Output materials as result of waste processing of materials used for installation/assembly at the building site	0.000	kg
Output materials as result of waste processing of used packaging	0.236	kg

4.3 DE-CONSTRUCTION, DEMOLITION (C1)

No inputs are needed for the product at the de-construction / demolition phase

4.4 TRANSPORT END-OF-LIFE (C2)

The following distances and transport conveyance are assumed for transportation during end of life for the different types of waste processing.

4 Scenarios and additional technical information

Waste Scenario	Transport conveyance	Not removed (stays in work) [km]	Landfill [km]	Incineration [km]	Recycling [km]	Re-use [km]
(ei3.9.1) board material, 'contaminated' (large parts i.a. covering) (NMD ID 56) | (u=10%, glue=12%) corr. acc. EN16449	(ei3.9.1) Lorry (Truck), unspecified (default) | market group for (GLO)	0	100	150	50	50
(ei3.9.1) finishes (adhered to wood, plastic, metal) (NMD ID 2)	(ei3.9.1) Lorry (Truck), unspecified (default) | market group for (GLO)	0	100	150	50	50

The transport conveyance(s) used in the scenario(s) for transport during end of life has the following characteristics.

	Value and unit
Vehicle type used for transport	(ei3.9.1) Lorry (Truck), unspecified (default) | market group for (GLO)
Fuel type and consumption of vehicle	not available
Capacity utilisation (including empty returns)	50 % (loaded up and return empty)
Bulk density of transported products	inapplicable
Volume capacity utilisation factor	1

4.5 END OF LIFE (C3, C4)

The scenario(s) assumed for end of life of the product are given in the following tables. First the assumed percentages per type of waste processing are displayed, followed by the assumed amounts.

Waste Scenario	Region	Not removed (stays in work) [%]	Landfill [%]	Incineration [%]	Recycling [%]	Re-use [%]
(ei3.9.1) board material, 'contaminated' (large parts i.a. covering) (NMD ID 56) | (u=10%, glue=12%) corr. acc. EN16449	NL	0	5	95	0	0
(ei3.9.1) finishes (adhered to wood, plastic, metal) (NMD ID 2)	NL	0	0	100	0	0

4 Scenarios and additional technical information

Waste Scenario	Not removed (stays in work) [kg]	Landfill [kg]	Incineration [kg]	Recycling [kg]	Re-use [kg]
(ei3.9.1) board material, 'contaminated' (large parts i.a. covering) (NMD ID 56) | (u=10%, glue=12%) corr. acc. EN16449	0.000	0.218	4.152	0.000	0.000
(ei3.9.1) finishes (adhered to wood, plastic, metal) (NMD ID 2)	0.000	0.000	0.090	0.000	0.000
Total	**0.000**	**0.218**	**4.242**	**0.000**	**0.000**

4.6 BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY (D)

The presented Benefits and loads beyond the system boundary in this EPD are based on the following calculated Net output flows in kilograms and Energy recovery displayed in MJ Lower Heating Value.

Waste Scenario	Net output flow [kg]	Energy recovery [MJ]
(ei3.9.1) board material, 'contaminated' (large parts i.a. covering) (NMD ID 56) | (u=10%, glue=12%) corr. acc. EN16449	0.000	58.079
(ei3.9.1) finishes (adhered to wood, plastic, metal) (NMD ID 2)	0.000	2.771
Total	**0.000**	**60.851**

5 Results

For the impact assessment long-term emissions (>100 years) are not considered. The results of the impact assessment are only relative statements that do not make any statements about end-points of the impact categories, exceedance of threshold values, safety margins or risks. The following tables show the results of the indicators of the impact assessment, of the use of resources as well as of waste and other output flows.

5.1 ENVIRONMENTAL IMPACT INDICATORS PER P

CORE ENVIRONMENTAL IMPACT INDICATORS EN 15804+A2

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	-4.44E+0	7.59E-1	6.13E-1	-3.06E+0	2.81E-1	5.97E-1	0.00E+0	9.81E-2	6.34E+0	3.38E-1	-5.01E-1
GWP-f	kg CO_2 eq.	1.97E+0	7.58E-1	8.41E-1	3.56E+0	2.81E-1	3.61E-1	0.00E+0	9.77E-2	2.55E-1	2.40E-3	-4.96E-1
GWP-b	kg CO_2 eq.	-6.40E+0	3.01E-4	-2.29E-1	-6.63E+0	9.00E-5	2.35E-1	0.00E+0	3.18E-5	6.09E+0	3.35E-1	-2.79E-3
GWP-luluc	kg CO_2 eq.	2.65E-3	2.68E-4	6.98E-4	3.62E-3	1.37E-4	1.81E-4	0.00E+0	3.48E-4	1.42E-5	4.98E-7	-2.36E-3
ODP	kg CFC 11 eq.	6.78E-8	1.73E-7	4.60E-8	2.87E-7	6.15E-9	1.54E-8	0.00E+0	1.74E-9	2.09E-9	6.44E-11	-4.94E-8
AP	mol H+ eq.	1.24E-2	3.86E-3	3.36E-3	1.96E-2	1.16E-3	8.91E-4	0.00E+0	4.68E-4	1.30E-3	1.43E-5	-8.27E-3
EP-fw	kg P eq.	9.23E-5	6.01E-6	2.58E-5	1.24E-4	2.26E-6	4.90E-6	0.00E+0	9.72E-7	8.04E-7	2.45E-8	-3.97E-5
EP-m	kg N eq.	3.04E-3	1.31E-3	8.83E-4	5.23E-3	4.40E-4	2.65E-4	0.00E+0	1.78E-4	6.13E-4	1.22E-5	-2.42E-3
EP-T	mol N eq.	3.91E-2	1.45E-2	7.71E-3	6.13E-2	4.74E-3	3.12E-3	0.00E+0	1.90E-3	7.02E-3	6.50E-5	-4.00E-2
POCP	kg NMVOC eq.	1.45E-2	4.13E-3	4.50E-3	2.31E-2	1.70E-3	1.04E-3	0.00E+0	6.47E-4	1.86E-3	2.95E-5	-7.26E-3
ADP-mm	kg Sb-eq.	1.61E-5	2.07E-5	8.74E-6	4.56E-5	9.08E-7	1.55E-6	0.00E+0	3.06E-7	1.03E-7	4.40E-9	-6.70E-7
ADP-f	MJ	3.95E+1	1.15E+1	1.92E+1	7.02E+1	4.01E+0	2.58E+0	0.00E+0	1.40E+0	4.13E-1	5.09E-2	-7.07E+0
WDP	m3 world eq.	2.25E+0	3.21E-2	5.89E-1	2.87E+0	1.86E-2	1.00E-1	0.00E+0	8.59E-3	1.14E-2	2.87E-4	-5.54E-2

GWP-total=Global Warming Potential total (GWP-total) | **GWP-f**=Global Warming Potential fossil fuels (GWP-fossil) | **GWP-b**=Global Warming Potential biogenic (GWP-biogenic) | **GWP-luluc**=Global Warming Potential land use and land use change (GWP-luluc) | **ODP**=Depletion potential of the stratosperic ozon layer (ODP) | **AP**=Acidification potential, Accumulated Exceedance (AP) | **EP-fw**=Eutrophication potential, fraction of nutrients reaching freshwater end compartment (EP-freshwater) | **EP-m**=Eutrophication potential, fraction of nutrients reaching marine end compartment (EP-marine) | **EP-T**=Eutrophication potential, Accumulated Exceedance (EP-terrestrial) | **POCP**=Formation potential of tropospheric ozone (POCP) | **ADP-mm**=Abiotic depletion potential for non fossil resources (ADP mm) | **ADP-f**=Abiotic depletion for fossil resources potential (ADP fossil) | **WDP**=Water (user) deprication potential, deprivation-weighted water consumption (WDP)

5 Results

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS EN 15804+A2

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
PM	disease incidence	1.96E-7	5.51E-8	4.84E-8	2.99E-7	2.29E-8	1.28E-8	0.00E+0	9.64E-9	1.06E-8	3.52E-10	-1.13E-7
IR	kBq U235 eq.	7.80E-2	5.04E-2	6.92E-2	1.98E-1	2.01E-3	6.83E-3	0.00E+0	5.46E-4	4.68E-4	5.27E-5	-5.93E-3
ETP-fw	CTUe	1.27E+1	9.23E+0	5.83E+0	2.78E+1	1.98E+0	3.68E+0	0.00E+0	1.03E+0	2.29E+0	3.11E-2	-2.82E+0
HTP-c	CTUh	2.04E-8	2.59E-10	8.00E-9	2.86E-8	1.28E-10	1.40E-9	0.00E+0	5.17E-11	1.50E-8	1.18E-12	-8.01E-10
HTP-nc	CTUh	2.71E-8	1.01E-8	6.23E-9	4.34E-8	2.82E-9	2.24E-9	0.00E+0	1.12E-9	3.29E-9	4.01E-11	-2.31E-8
SQP	Pt	1.69E+2	7.95E+0	2.54E+1	2.03E+2	2.39E+0	7.38E+0	0.00E+0	1.10E+0	1.29E-1	1.25E-1	-1.69E+2

PM=Potential incidence of disease due to PM emissions (PM) | **IR**=Potential Human exposure efficiency relative to U235 (IRP) | **ETP-fw**=Potential Comparative Toxic Unit for ecosystems (ETP-fw) | **HTP-c**=Potential Comparative Toxic Unit for humans (HTP-c) | **HTP-nc**=Potential Comparative Toxic Unit for humans (HTP-nc) | **SQP**=Potential soil quality index (SQP)

CLASSIFICATION OF DISCLAIMERS TO THE DECLARATION OF CORE AND ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS

ILCD classification	Indicator	Disclaimer
ILCD type / level 1	Global warming potential (GWP)	None
	Depletion potential of the stratospheric ozone layer (ODP)	None
	Potential incidence of disease due to PM emissions (PM)	None
ILCD type / level 2	Acidification potential, Accumulated Exceedance (AP)	None
	Eutrophication potential, Fraction of nutrients reaching freshwater end compartment (EP-freshwater)	None
	Eutrophication potential, Fraction of nutrients reaching marine end compartment (EP-marine)	None
	Eutrophication potential, Accumulated Exceedance (EP-terrestrial)	None
	Formation potential of tropospheric ozone (POCP)	None
	Potential Human exposure efficiency relative to U235 (IRP)	1
ILCD type / level 3	Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)	2
	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	2
	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	2
	Potential Comparative Toxic Unit for humans (HTP-c)	2
	Potential Comparative Toxic Unit for humans (HTP-nc)	2

5 Results

ILCD classification	Indicator	Disclaimer
	Potential Soil quality index (SQP)	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 disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

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 experienced with the indicator.

5.2 INDICATORS DESCRIBING RESOURCE USE AND ENVIRONMENTAL INFORMATION BASED ON LIFE CYCLE INVENTORY (LCI)

PARAMETERS DESCRIBING RESOURCE USE

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	8.32E+0	1.63E-1	-4.34E+0	4.14E+0	6.22E-2	4.00E-1	0.00E+0	1.98E-2	1.96E-2	2.22E-3	-4.01E+1
PERM	MJ	5.38E+1	0.00E+0	1.38E+1	6.76E+1	0.00E+0	2.03E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PERT	MJ	6.21E+1	1.63E-1	9.46E+0	7.17E+1	6.22E-2	2.43E+0	0.00E+0	1.98E-2	1.96E-2	2.22E-3	-4.01E+1
PENRE	MJ	3.36E+1	1.22E+1	1.45E+1	6.03E+1	4.01E+0	2.28E+0	0.00E+0	1.40E+0	4.13E-1	5.09E-2	-6.93E+0
PENRM	MJ	1.01E+1	0.00E+0	5.83E+0	1.59E+1	0.00E+0	4.78E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-1.41E-1
PENRT	MJ	4.37E+1	1.22E+1	2.03E+1	7.62E+1	4.01E+0	2.76E+0	0.00E+0	1.40E+0	4.13E-1	5.09E-2	-7.07E+0
SM	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
RSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
NRSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
FW	m^3	6.36E-2	1.22E-3	1.65E-2	8.13E-2	6.24E-4	2.97E-3	0.00E+0	3.60E-4	2.05E-3	6.35E-5	-1.57E-3

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

5 Results

OTHER ENVIRONMENTAL INFORMATION DESCRIBING WASTE CATEGORIES

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	Kg	1.41E-4	3.02E-5	3.81E-5	2.10E-4	2.55E-5	8.74E-6	0.00E+0	8.92E-6	3.86E-6	2.38E-7	-3.23E-5
NHWD	Kg	2.84E-1	5.51E-1	1.18E+0	2.02E+0	1.96E-1	4.46E-1	0.00E+0	9.25E-2	4.28E+0	2.19E-1	-1.03E-1
RWD	Kg	6.38E-5	7.85E-5	5.14E-5	1.94E-4	1.30E-6	6.45E-6	0.00E+0	3.20E-7	3.01E-7	2.91E-8	-4.30E-6

HWD=Hazardous waste disposed | **NHWD**=Non-hazardous waste disposed | **RWD**=Radioactive waste disposed

ENVIRONMENTAL INFORMATION DESCRIBING OUTPUT FLOWS

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
CRU	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MFR	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.22E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MER	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EET	MJ	0.00E+0	0.00E+0	4.00E+0	4.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.12E+1
EEE	MJ	0.00E+0	0.00E+0	2.32E+0	2.32E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.23E+1

CRU=Components for re-use | **MFR**=Materials for recycling | **MER**=Materials for energy recovery | **EET**=Exported Energy, Thermic | **EEE**=Exported Energy, Electric

5 Results

5.3 INFORMATION ON BIOGENIC CARBON CONTENT PER P

BIOGENIC CARBON CONTENT

The following Information describes the biogenic carbon content in (the main parts of) the product at the factory gate per p:

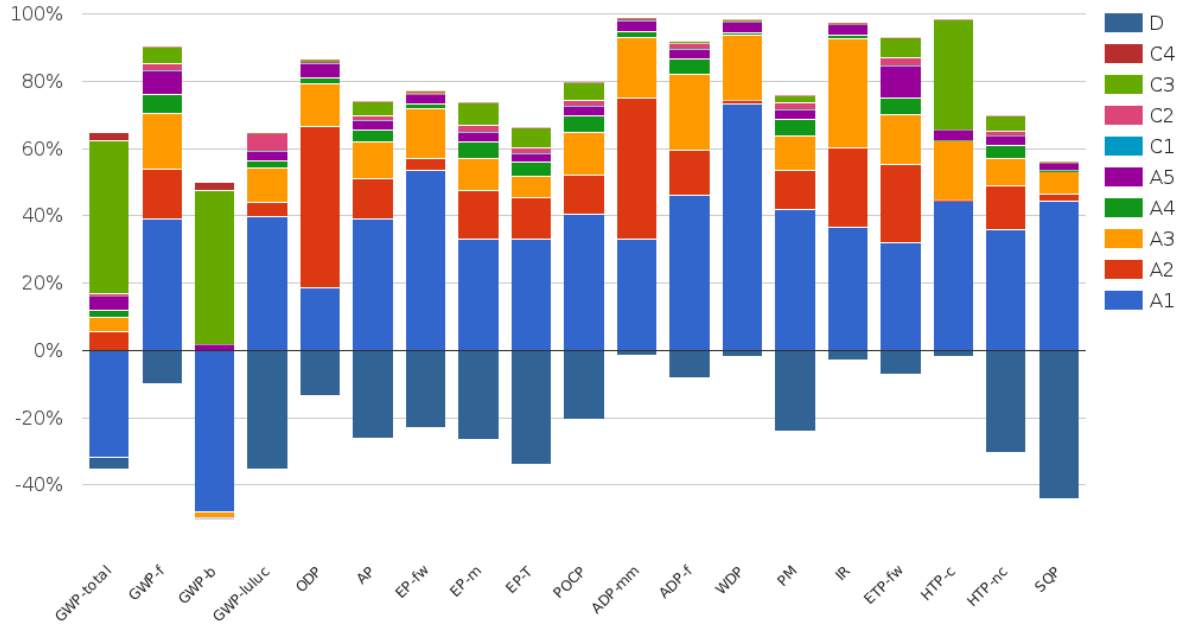
Biogenic carbon content	Amount	Unit
Biogenic carbon content in the product	1.748	kg C
Biogenic carbon content in accompanying packaging	0.06364	kg C

UPTAKE OF BIOGENIC CARBON DIOXIDE

The following amount of carbon dioxide uptake is taken into account. Related uptake and release of carbon dioxide in downstream processes are not taken into account in this number although they do appear in the presented results. One kilogram of biogenic Carbon content is equivalent to 44/12 kg of biogenic carbon dioxide uptake.

Uptake Biogenic Carbon dioxide	Amount	Unit
Product	6.409	kg CO2 (biogenic)
Packaging	0.2333	kg CO2 (biogenic)

6 Interpretation of results



The figure shows the influence of the different life stages on the environmental core indicators for the melamine-coated shelf. As shown in the figure the majority of the environmental impacts are contributed by the raw material processing phase (A1) and the production process (A3). The benefits and loads beyond the system boundary (D) have a considerable impact across most of the environmental impact categories (module D is outside the system boundaries).

Modules A5 (installation into the building) - in regard to the packaging materials - and C3 (waste processing) have a considerable impact on the Global Warming Potential (GWP-total). Module C3 has a larger impact than the rest of the end of life stages due to the recycling of the packaging material. The packaging materials (cardboard, EUR-flat pallet) contribute to a biogenic CO2 uptake.

6 Interpretation of results

The modules A2, A4 and C2 (transport of raw materials, transport to the construction site and waste transport), deconstruction/demolition (C1) and disposal (C4) have the least impact on the environmental impact categories.

7 References

ISO 14040
ISO 14040:2006-10, Environmental management - Life cycle assessment - Principles and framework; EN ISO 14040:2006

ISO 14044
ISO 14044:2006-10, Environmental management - Life cycle assessment - Requirements and guidelines; EN ISO 14044:2006

ISO 14025
ISO 14025:2011-10, Environmental labels and declarations — Type III environmental declarations — Principles and procedures

EN 15804+A2
EN 15804:2012+A2:2019/AC:2021, Sustainability of Buildings - Environmental Product Declarations - Framework Development Rules by Product Category

Kiwa-EE GPI R.4.0
Kiwa-Ecobility Experts, General Programme Instructions “Product Level”, SOP EE 1203_R. 4.0 (18.12.2025)

Kiwa-EE GPI R.4.0 Annex B1
Kiwa-Ecobility Experts, General Programme Instructions “Product Level” – Annex B1 Environmental Information Programme according to EN 15804 / ISO 21930, SOP EE 1203_R. 4.0 (18.12.2025)

Ecoinvent
ecoinvent Version 3.9.1 (December 2022)

R<THINK characterization method
ecoinvent 3.9.1: EN 15804+A1 indicators (CML-IA Baseline v3.09), EN 15804+A2 indicators (EF 3.1)

NPCR 026
NPCR 026 Part B for Furniture and components of furniture (references to EN 15804+A2) (version 3.0)

NMD
Dutch Environmental Database (NMD)

8 Contact information

Publisher	Operator	Owner of declaration

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