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

Mynt (Plastic Shell)

Registration number:	EPD-Kiwa-EE-216255-EN
Issue date:	03-09-2025
Valid until:	03-09-2030
Declaration owner:	Vitra AG
Publisher:	Kiwa-Ecobility Experts
Programme operator:	Kiwa-Ecobility Experts
Status:	verified

1 General information

1.1 PRODUCT

Mynt (Plastic Shell)

1.2 REGISTRATION NUMBER

EPD-Kiwa-EE-216255-EN

1.3 VALIDITY

Issue date: 03-09-2025

Valid until: 03-09-2030

1.4 PROGRAMME OPERATOR

Kiwa-Ecobility Experts
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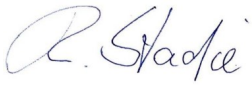
13355 Berlin
DE

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: Vitra AG

Address: Klünenfeldstrasse 22, 4127 Birsfelden, CH

E-mail: info@vitra.com

Website: https://www.vitra.com/de-de/home

Production location: Modo GmbH

Address production location: Charles-Eames-Strasse 2, 79576 Weil am Rhein, DE

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

Patrick Wortner, PeoplePlanetProfit GmbH & Co. KG.

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

PCR A
Kiwa-Ecobility Experts, General Programme Instructions “Product Level” – Annex B1 Environmental Information Programme according to EN 15804 / ISO 21930, SOP EE 1203_R. 2.0 (27.02.2025)

PCR B
EPD Norway - NPCR 026 Part B for Furniture and components of furniture (references to EN 15804+A2) version 3.0 (2024-10-08)

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. 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

1 General information

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

LCA software*: Simapro 9.6

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

LCA database profiles: ecoinvent (for version see references)

Version database: v3.19 (20250306)

** Simapro is used for calculating the characterized results of the Environmental profiles within R<THINK.*

1.11 LCA BACKGROUND REPORT

This EPD is generated on the basis of the LCA background report 'Mynt (Plastic Shell)' with the calculation identifier ReTHiNK-116255.

2 Product

2.1 PRODUCT DESCRIPTION

This Specific-EPD refers to Mynt (Plastic Shell), which brings a new way of sitting to offices, private and public spaces. It takes into account the fact that people sit on the same chair for less time and often share it with others. In the office it offers the homely aesthetics of a universal chair, at home the dynamics of an office chair. In this way, it defies conventional categorization.

The heart of Mynt is the patented mechanism, which is activated by human weight and then tilts backwards or forwards depending on the weight shift and position of the sitter - the seat is independent of the backrest. The resistance to movement is automatically adjusted to the user's weight; only the height needs to be set.

The seat and backrest are available in veneer wood or in recycled polyamide made from 100% post-industrial material and can be changed regardless of the material. With the four-star base, you can switch between glides and castors - Mynt meets the relevant office standards with both versions.

Upholstered covers are available for the seat and backrest. The two upholstered elements can be easily removed and cleaned or replaced using a zipper. This means that Mynt stays fresh and can be adapted to new needs whenever required.

The product (configured as described) has the following material composition:

Aluminum	58.6 %
Polyamide (Post-Industrial Recycled)	24.0 %
Steel	12.9 %
Polyamide (Virgin)	2.6 %
Zinc	1.1 %
Polyurethane	0.3 %
Polyoxymethylene	0.3 %
TPU	0.2 %

2.2 APPLICATION (INTENDED USE OF THE PRODUCT)

The product serves the function of an office work swivel chair.

2.3 REFERENCE SERVICE LIFE

RSL PRODUCT

The usual 15 year reference service life (RSL) for furniture is used as there is no reason to assume a different reference service life.

USED RSL (YR) IN THIS LCA CALCULATION:

15

2.4 TECHNICAL DATA

Seat height adjustable with Stabilus STAB-O-MAT 4A/4D or Lant SKQ-A/B-20 Class 4 gas spring. Backrest with armrests and seat made of 100% recycled post-industrial polyamide. Mechanism in aluminium with automatic weight adjustment and locking feature. Equipped as standard with seat height adjustment and forward tilt. Four-star base in aluminium with double castors (Ø 50 mm)

2 Product

Mynt (with plastic shell, configured as described) holds the GS (Geprüfte Sicherheit) and Greenguard Gold certifiication and fulfills the BIFMA requirements, specifically ANSI/ BIFMA X5.1-2017 (R2022).

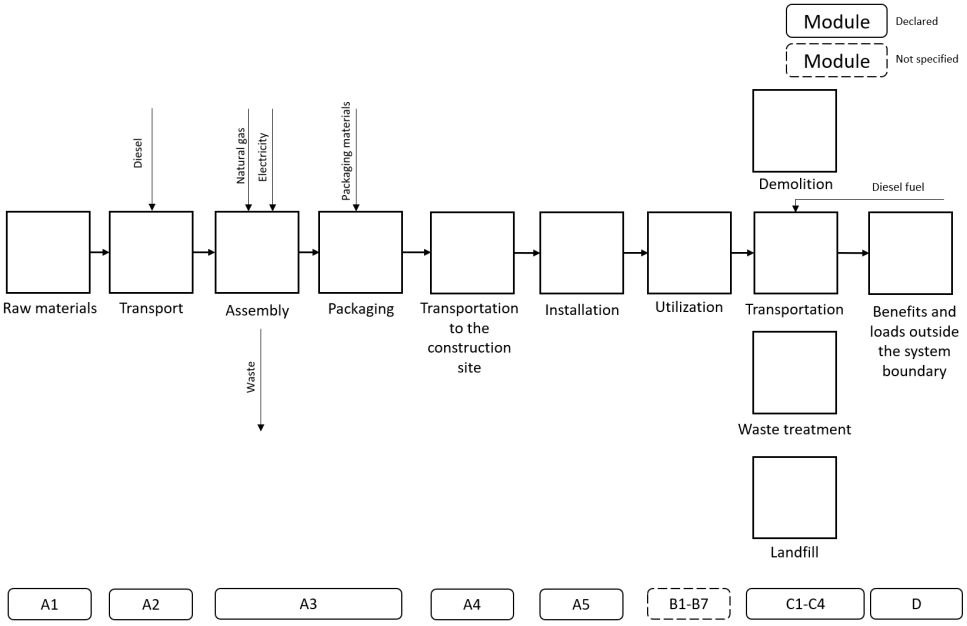
Vitra plastics are very robust, exhibiting excellent shape retention and colourfastness, and therefore resistant to a variety of chemicals and other substances. Furthermore, special additives retard the fading of colours due to UV radiation. However, the exposure of a chair to sunlight for prolonged periods may cause the colour to change over time. For this reason, limited exposure to sunlight is advisable.

2.5 SUBSTANCES OF VERY HIGH CONCERN

The product does not contain substances of very high concern (SVHC).

2.6 DESCRIPTION PRODUCTION PROCESS

The complete product is assembled at Vitra's production facility, Building A in Weil am Rhein, Germany.



2.7 CONSTRUCTION DESCRIPTION

The product is delivered assembled and packaged and needs no further assembly or installation at the site.

3 Calculation rules

3.1 DECLARED UNIT

One piece

The declared unit is one complete product serving the function of an office chair for a 15-year period. The product name is Mynt. The product is configured as follows:

- Without upholstery
- Seat and Back Plastic, Color grey RE
- 4-Star base made from blasted aluminum
- Surfaces (including frame and mechanism) made from blasted aluminum
- Braked castors for carpet floors

The weight for one complete product is 11.294 kg. The measurements for one complete product are 82 x 80.5-89 x 82 cm (Width x Height x Depth)

Reference unit: piece (p)

3.2 CONVERSION FACTORS

Description	Value	Unit
Reference unit	1	p
Weight per reference unit	11.294	kg
Conversion factor to 1 kg	0.088543	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 = De-construction / 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 Mynt (Plastic Shell), a product of Vitra AG. The results of this EPD are representative for European Union.

3.5 CUT-OFF CRITERIA

For each unit process, the cut-off criteria of 1% of renewable and non-renewable primary energy usage and 1% of the total mass input of that unit process are complied with. The total neglected input flows do not exceed the limit of 5% of energy use and mass.

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.

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.

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. Demolition of the product is accomplished using hand tools with no associated emissions and negligble impacts.

Benefits and loads beyond the system boundary (Module 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.

The following processes are excluded:

- Manufacturing of equipment used in production, buildings or any other capital asset
- Water and electricity consumption for the building
- Transportation of personnel to the plant
- Transportation of personnel within the plant
- Research and development activities
- Long-term emissions

3.6 ALLOCATION

The energy consumption is calculated based on the total consumption at the production site in 2023 (for all products manufactured) and are converted into the amount used solely for the production of the declared product. The amount of energy is given per piece of product manufactured.

No allocation is performed with regard to the use of secondary materials or fuels, co-products, plant-specific production processes or multi-input systems.

The polluter pays principle applies to the use of waste as a substitute for primary fuels or materials. Double counting is avoided.

3.7 DATA COLLECTION & REFERENCE PERIOD

Production waste and energy consumption data are based on the reference year 2023 (January 1st, 2023-December 31st, 2023).

3.8 ESTIMATES AND ASSUMPTIONS

For all raw materials used (raw materials, operating materials, packaging), the transportation distance is recorded. A payload factor of 50% is used for all truck transports (suppliers, disposal transports and internal transports), which corresponds to a full delivery and empty return journey.

No auxiliary materials are used during assembly.

The assumed distance of 590 km for Module A4 is an average distance which takes into account the sales shares and their respecitive transport distances.

Excluded are the manufacturing of capital equipment, construction undertakings, and infrastructure development, along with the maintenance and operation of capital equipment. Additionally, activities related to personnel, as well as energy and water consumption associated with company management and sales, are also excluded.

The scenarios included are currently in use and are representative for one of the most likely scenario alternatives.

3.9 DATA QUALITY

The data are based on the annual average of the year 2023. Generic datasets from the ecoinvent database V3.6 are used for the secondary data, which refers to reference year 2019. This database is regularly maintained and meets the requirements of EN 15804+A2 (background data not older than 10 years). All consistent datasets contained in the ecoinvent database are documented and can be viewed in the online ecoinvent documentation. In the operating data survey all relevant process-specific data could be collected. The quality of the data can be thus considered as good.

The primary data are collected and provided by Vitra. The assessment of data quality on the basis of ISO 14044 is presented below.

Aspect	Data quality assessment

3 Calculation rules

Time-related coverage	The primary data represent the current situation of the date of study (2023) or as close as possible (<5 years). The secondary data are updated within last 10 years.
Geographical coverage	Most of the datasets selected for the LCA refer to Europe as the geographical reference.
Technology coverage	The data are representative of the technology used in production processes.
Completeness	Specific data are benchmarked with literature data. Simple validation checks (e.g. mass or energy balances) are performed.
Representativeness	The data fulfill the defined time-related, geographical, and technological scope.
Precision	The data used are as representative as possible. The data are derived from credible sources, and references are provided.
Reproducibility	Information about the method and data (reference source) are provided.
Sources of the data	The data are derived from credible sources, and references are provided.

3.10 POWER MIX

The use of green electricity is included in the calculation of the environmental impacts, which is based on the purchased electricity mix, referring to the market based approach. The electricity used at the Modo GmbH in Weil am Rhein is produced completely from hydropower plants located in the Alps. The share of green electricity with guarantees of origin in total electricity consumption is 100%. The GWP-total of the electricity is calculated at 0.041 kg CO2 eqv./kWh. The upstream electricity is not treated as green electricity.

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	(ei3.6) Lorry (Truck) 16-32t, EURO4 | market for (EU)
Fuel type and consumption of vehicle	not available
Distance	590 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	0	%
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	0.179	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]
aluminium, cast alloy for buildings (i.a. profiles, sheets, pipes) (EU) (based on NMD ID 4)	(ei3.6) Lorry (Truck), unspecified (default) | market group for (GLO)	0	100	150	50	0
(ei3.6) plastics, via residue (NMD ID 43)	(ei3.6) Lorry (Truck), unspecified (default) | market group for (GLO)	0	100	150	50	0
(ei3.6) Metals, others (i.a. fasteners, fittings) (NMD ID 50)	(ei3.6) Lorry (Truck), unspecified (default) | market group for (GLO)	0	100	150	50	0
(ei3.6) polyolefines (i.a. pe,pp) (i.a. pipes, foils) (NMD ID 57)	(ei3.6) Lorry (Truck), unspecified (default) | market group for (GLO)	0	100	150	50	0
(ei3.6) Zinc / zinc coating galvanised steel (i.a. profiles, sheets, zinc coating) (NMD ID 75)	(ei3.6) Lorry (Truck), unspecified (default) | market group for (GLO)	0	100	150	50	0
(ei3.6) Polyurethaan, via residue (NMD ID 59)	(ei3.6) Lorry (Truck), unspecified (default) | market group for (GLO)	0	100	150	50	0

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	(ei3.6) 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.

4 Scenarios and additional technical information

Waste Scenario	Region	Not removed (stays in work) [%]	Landfill [%]	Incineration [%]	Recycling [%]	Re-use [%]
aluminium, cast alloy for buildings (i.a. profiles, sheets, pipes) (EU) (based on NMD ID 4)	NL	0	3	3	94	0
(ei3.6) plastics, via residue (NMD ID 43)	NL	0	20	80	0	0
(ei3.6) Metals, others (i.a. fasteners, fittings) (NMD ID 50)	NL	0	5	5	90	0
(ei3.6) polyolefines (i.a. pe,pp) (i.a. pipes, foils) (NMD ID 57)	NL	0	10	85	5	0
(ei3.6) Zinc / zinc coating galvanised steel (i.a. profiles, sheets, zinc coating) (NMD ID 75)	NL	0	5	0	95	0
(ei3.6) Polyurethaan, via residue (NMD ID 59)	NL	0	0	100	0	0

Waste Scenario	Not removed (stays in work) [kg]	Landfill [kg]	Incineration [kg]	Recycling [kg]	Re-use [kg]
aluminium, cast alloy for buildings (i.a. profiles, sheets, pipes) (EU) (based on NMD ID 4)	0.000	0.199	0.199	6.224	0.000
(ei3.6) plastics, via residue (NMD ID 43)	0.000	0.070	0.278	0.000	0.000
(ei3.6) Metals, others (i.a. fasteners, fittings) (NMD ID 50)	0.000	0.073	0.073	1.310	0.000
(ei3.6) polyolefines (i.a. pe,pp) (i.a. pipes, foils) (NMD ID 57)	0.000	0.271	2.306	0.136	0.000
(ei3.6) Zinc / zinc coating galvanised steel (i.a. profiles, sheets, zinc coating) (NMD ID 75)	0.000	0.006	0.000	0.122	0.000
(ei3.6) Polyurethaan, via residue (NMD ID 59)	0.000	0.000	0.028	0.000	0.000
Total	**0.000**	**0.619**	**2.884**	**7.791**	**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]
aluminium, cast alloy for buildings (i.a. profiles, sheets, pipes) (EU) (based on NMD ID 4)	1.333	0.000
(ei3.6) plastics, via residue (NMD ID 43)	0.000	8.290
(ei3.6) Metals, others (i.a. fasteners, fittings) (NMD ID 50)	1.121	0.000
Total	**-0.001**	**84.555**

4 Scenarios and additional technical information

Waste Scenario	Net output flow [kg]	Energy recovery [MJ]
(ei3.6) polyolefines (i.a. pe,pp) (i.a. pipes, foils) (NMD ID 57)	-2.577	75.592
(ei3.6) Zinc / zinc coating galvanised steel (i.a. profiles, sheets, zinc coating) (NMD ID 75)	0.122	0.000
(ei3.6) Polyurethaan, via residue (NMD ID 59)	0.000	0.672
Total	**-0.001**	**84.555**

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 PIECE

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.	3.22E+1	5.14E-1	9.54E+0	4.22E+1	1.12E+0	4.00E-1	0.00E+0	1.19E-1	8.84E+0	5.79E-2	1.42E+1
GWP-f	kg CO_2 eq.	3.17E+1	5.13E-1	9.41E+0	4.16E+1	1.12E+0	4.00E-1	0.00E+0	1.19E-1	8.83E+0	5.78E-2	1.38E+1
GWP-b	kg CO_2 eq.	1.35E-1	7.49E-4	3.40E-2	1.70E-1	4.43E-4	7.24E-5	0.00E+0	4.81E-5	1.01E-2	5.82E-5	1.04E-1
GWP-luluc	kg CO_2 eq.	3.07E-1	3.96E-4	9.34E-2	4.00E-1	3.95E-4	3.30E-5	0.00E+0	4.38E-5	1.48E-3	9.36E-6	3.06E-1
ODP	kg CFC 11 eq.	2.29E-6	9.82E-8	6.78E-7	3.06E-6	2.56E-7	1.28E-8	0.00E+0	2.63E-8	3.39E-7	2.27E-9	1.09E-6
AP	mol H+ eq.	2.09E-1	2.75E-3	5.78E-2	2.70E-1	5.69E-3	1.97E-4	0.00E+0	6.92E-4	1.11E-2	9.09E-5	1.37E-1
EP-fw	kg P eq.	1.29E-3	1.31E-5	3.69E-4	1.67E-3	8.87E-6	1.21E-6	0.00E+0	1.20E-6	7.34E-5	3.48E-7	8.38E-4
EP-m	kg N eq.	3.13E-2	8.23E-4	8.06E-3	4.02E-2	1.94E-3	5.58E-5	0.00E+0	2.44E-4	2.22E-3	3.51E-5	1.48E-2
EP-T	mol N eq.	3.45E-1	9.16E-3	9.02E-2	4.45E-1	2.14E-2	6.16E-4	0.00E+0	2.69E-3	2.54E-2	2.80E-4	1.68E-1
POCP	kg NMVOC eq.	1.09E-1	2.61E-3	2.82E-2	1.40E-1	6.10E-3	1.67E-4	0.00E+0	7.67E-4	7.00E-3	9.24E-5	4.97E-2
ADP-mm	kg Sb-eq.	3.01E-2	1.16E-5	4.16E-3	3.42E-2	3.05E-5	5.84E-7	0.00E+0	3.02E-6	4.11E-5	1.06E-7	-2.67E-3
ADP-f	MJ	3.84E+2	7.96E+0	1.08E+2	5.00E+2	1.70E+1	3.55E-1	0.00E+0	1.80E+0	1.90E+1	2.16E-1	1.58E+2
WDP	m3 world eq.	1.22E+1	4.39E-2	3.14E+0	1.54E+1	4.74E-2	2.04E-2	0.00E+0	6.44E-3	4.74E-1	6.61E-3	5.42E+0

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	2.09E-6	3.33E-8	5.43E-7	2.66E-6	8.12E-8	1.74E-9	0.00E+0	1.07E-8	1.23E-7	1.44E-9	1.18E-6
IR	kBq U235 eq.	1.35E+0	4.04E-2	4.02E-1	1.80E+0	7.43E-2	1.47E-3	0.00E+0	7.54E-3	8.04E-2	8.09E-4	9.91E-1
ETP-fw	CTUe	9.95E+2	7.07E+0	2.72E+2	1.27E+3	1.36E+1	5.00E+0	0.00E+0	1.60E+0	1.33E+2	1.23E+2	4.62E+2
HTP-c	CTUh	1.63E-7	2.89E-10	3.27E-8	1.96E-7	3.82E-10	7.64E-11	0.00E+0	5.21E-11	2.37E-9	1.02E-11	4.48E-8
HTP-nc	CTUh	1.24E-6	7.75E-9	3.76E-7	1.62E-6	1.48E-8	1.61E-9	0.00E+0	1.76E-9	7.35E-8	3.34E-10	1.10E-6
SQP	Pt	1.00E+2	5.63E+0	2.72E+1	1.33E+2	1.17E+1	1.62E-1	0.00E+0	1.56E+0	1.53E+1	3.88E-1	3.73E+1

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 idex (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	9.89E+1	3.92E-1	3.36E+1	1.33E+2	2.40E-1	3.15E-2	0.00E+0	2.25E-2	2.05E+0	9.19E-3	7.84E+1
PERM	MJ	0.00E+0	0.00E+0	6.24E+0	6.24E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PERT	MJ	9.89E+1	3.92E-1	3.98E+1	1.39E+2	2.40E-1	3.15E-2	0.00E+0	2.25E-2	2.05E+0	9.19E-3	7.84E+1
PENRE	MJ	3.11E+2	8.44E+0	1.00E+2	4.19E+2	1.81E+1	3.77E-1	0.00E+0	1.91E+0	2.03E+1	2.30E-1	1.71E+2
PENRM	MJ	9.96E+1	0.00E+0	1.56E+1	1.15E+2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-4.11E+0
PENRT	MJ	4.10E+2	8.44E+0	1.16E+2	5.34E+2	1.81E+1	3.77E-1	0.00E+0	1.91E+0	2.03E+1	2.30E-1	1.67E+2
SM	Kg	7.79E+0	0.00E+0	8.27E-1	8.62E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-3.11E+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	6.33E-1	2.24E-3	1.80E-1	8.16E-1	1.79E-3	5.98E-4	0.00E+0	2.19E-4	1.75E-2	1.97E-4	4.68E-1

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

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OTHER ENVIRONMENTAL INFORMATION DESCRIBING WASTE CATEGORIES

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	Kg	3.45E-2	1.77E-5	1.50E-2	4.95E-2	4.45E-5	7.09E-7	0.00E+0	4.56E-6	4.11E-2	2.62E-7	2.32E-2
NHWD	Kg	1.37E+1	3.06E-1	3.63E+0	1.77E+1	8.13E-1	1.75E-1	0.00E+0	1.14E-1	3.51E+0	6.23E-1	4.97E+0
RWD	Kg	1.26E-3	5.25E-5	3.80E-4	1.69E-3	1.16E-4	1.44E-6	0.00E+0	1.18E-5	8.38E-5	1.08E-6	9.11E-4

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	1.18E+0	1.18E+0	0.00E+0	1.41E-2	0.00E+0	0.00E+0	7.79E+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	3.97E+0	3.97E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.81E+1
EEE	MJ	0.00E+0	0.00E+0	2.30E+0	2.30E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.63E+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

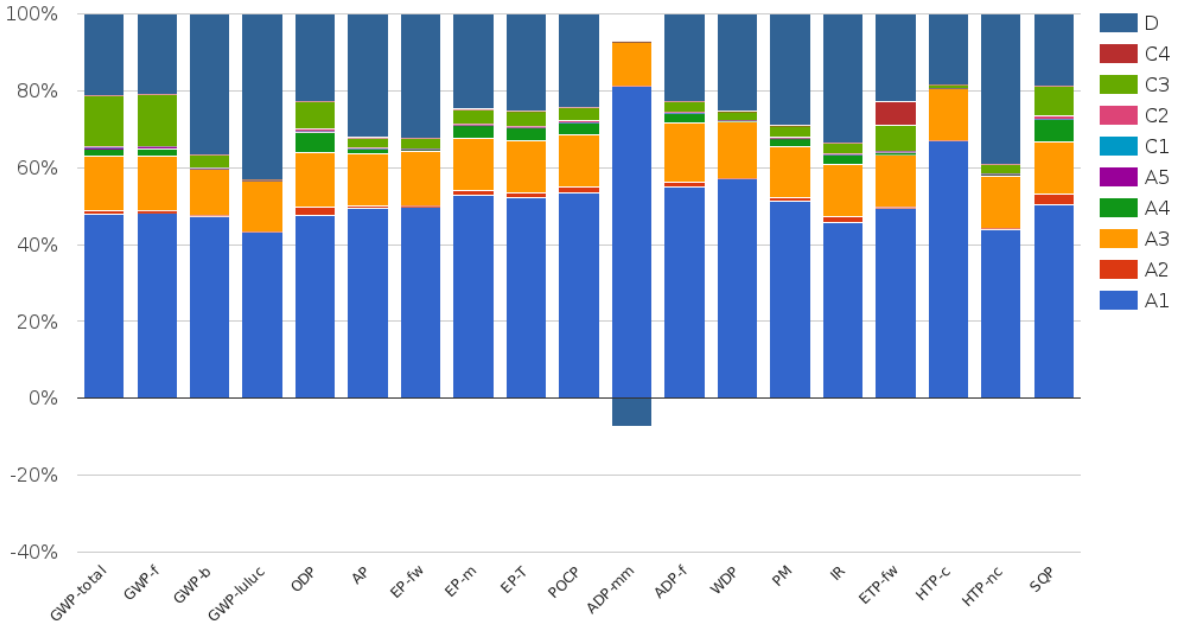
5.3 INFORMATION ON BIOGENIC CARBON CONTENT PER PIECE

BIOGENIC CARBON CONTENT

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

Biogenic carbon content	Amount	Unit
Biogenic carbon content in the product	0	kg C
Biogenic carbon content in accompanying packaging	0	kg C

6 Interpretation of results



In most impact categories, the environmental impact of Mynt (Plastic Shell) is predominantly determined by the extraction and processing of raw materials (Module A1). Among the raw materials (Module A1), Aluminum (90% share of mechanism and frame) results in the largest environmental impact, accounting for 46.3% of the GWP-total.

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+A2: 2019: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

Kiwa-EE GPI R.2.0
Kiwa-Ecobility Experts, General Programme Instructions “Product Level”, SOP EE 1203_R. 2.0 (27.02.2025)

Kiwa-EE GPI R.2.0 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. 2.0 (27.02.2025)

PCR B
EPD Norway - NPCR 026 Part B for Furniture and components of furniture (references to EN 15804+A2) version 3.0 (2024-10-08)

Ecoinvent
ecoinvent Version 3.6 (September 2019)

R<THINK characterization method
ecoinvent 3.6: EN 15804+A2 Method v1.0 / EF 3.0

ANSI/BIFMA X5.4-2020
American National Standards Institute & Business and Institutional Furniture Manufacturers Association. (2025). Lounge and public seating – Safety and performance requirements (ANSI/BIFMA X5.4-2020 (R2025)). BIFMA. https://www.bifma.org/

TB 117-2013
State of California, Department of Consumer Affairs, Bureau of Electronic and Appliance Repair, Home Furnishings and Thermal Insulation. (2013). Technical Bulletin 117-2013: Requirements, test procedure and apparatus for testing the smolder resistance of materials used in upholstered furniture. https://bhgs.dca.ca.gov/

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