

Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Storage bin 100% recycled plastic (PCR)

from

Axjo Group AB

EPD of multiple products, based on a weighted average of included products. All included products are listed under product identification in the EPD.



Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products from a company
EPD registration number:	EPD-IES-0028657:001
Version date:	2026-04-13
Validity date:	2031-04-12

An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com



GENERAL INFORMATION

Programme Information	
Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	support@environdec.com

Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): <i>Construction products 2019:14, version 2.0.1, valid until 2030-04-07, UN CPC code: 3814</i>
PCR review was conducted by: <i>The Technical Committee of the International EPD® System.</i> <i>See www.environdec.com for a list of members.</i> <i>Review chair: Rob Rouwette (chair), Noa Meron (cochair).</i> <i>The review panel may be contacted via the Secretariat www.environdec.com/contact</i>
c-PCR: c-PCR-021, Furniture and components of furniture, version 2.0.1. NPCR 026: Part B for Furniture and components of furniture, version 3.0

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:
☒ Individual EPD verification without a pre-verified LCA/EPD tool Third-party verifier: Viktor Hakkarainen, <i>CHM Analytics AB</i> , Approved by: International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ABOUT EPD OWNER

Owner of the EPD: Axjo Group AB

Address: Svarvargatan 6, 332 38 Gislaved

Contact: Victora Balika, victoria.balika@axjo.com

Address and contact information of the LCA practitioner commissioned by the EPD owner:

Miljögiraff AB

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Description of the organisation:

Axjo is a global leader in the development and manufacturing of packaging solutions made from recycled polymer materials. With core business areas in packaging solutions and circular solutions, Axjo produces plastic cable spools, drums, reels, and related products that support the cable and wire industry, as well as small storage solutions for various industries and needs.

Headquartered in Gislaved, Sweden, and operating worldwide, Axjo is part of the international distribution value chain, delivering circular, customer-oriented solutions that reduce environmental impact. Through in-house innovation, retake programs, and the use of 100% recycled plastics, Axjo helps drive the transition toward a more sustainable and efficient industry.

Axjo is committed to Zero Waste manufacturing and long-term value creation, working in close partnership with some of the world's leading industrial companies.

Product-related or management system-related certifications: ISO 9001, 14001 och 45001.

PRODUCT INFORMATION

Product name: Storage bin: 100% Recycled (PCR), used for storage.

Product identification: This EPD include storage bins of different types and weights that are all made of 100% recycled (PCR) plastic. See table below for all included products and their respective total weight.

Product code	Type of product	Weight (kg)
112530010120	Storage tray 3001	0.168
112530010420	Storage tray 3001	0.168
112530030120	Storage tray 3003	0.245
112530030420	Storage tray 3003	0.245
112530110120	Storage tray 3011	0.24
112530110420	Storage tray 3011	0.24
112530130120	Storage tray 3013	0.325
112530130420	Storage tray, stackable 3013 (Two label)	0.321
112530130425	Storage tray 3013 (One label)	0.321
112530130429	Storage tray 3013 / One label / container	0.321
112530210120	Storage tray 3021	0.29
112530210420	Storage tray 3021	0.29
112530230120	Storage tray 3023	0.71
112530230420	Storage tray 3023	0.71
112530230429	Storage tray 3023 / container	0.71
112530310120	Storage tray 3031	0.357
112530310420	Storage tray 3031	0.357
112530330120	Storage tray 3033	0.54
112530330420	Storage tray 3033	0.54
112530670120	Modular bin, stackable 3067	0.43
112530670420	Modular bin, stackable 3067	0.43
112530670720	Modular bin, stackable 3067	0.43
112530670820	Modular bin, stackable 3067	0.43
112530680120	Modular bin, stackable 3068	0.559
112530680420	Modular bin, stackable 3068	0.559
112530680720	Modular bin, stackable 3068	0.559
112530680820	Modular bin, stackable 3068	0.559
112530690120	Modular bin, stackable 3069	0.69
112530690420	Modular bin, stackable 3069	0.69
112530690720	Modular bin, stackable 3069	0.69
112530690820	Modular bin, stackable 3069	0.69
112530700120	Modular bin, stackable 3070	0.79
112530700420	Modular bin, stackable 3070	0.79
112530700720	Modular bin, stackable 3070	0.79
112530700820	Modular bin, stackable 3070	0.79

112530710150	Storage bin, stackable 3071	1.146
112530710420	Storage bin, stackable 3071	1.146
112530710520	Storage bin, stackable 3071	1.146
112530710720	Storage bin, stackable 3071	1.146
112530710820	Storage bin, stackable 3071	1.146
112530720150	Storage bin, stackable 3072	1.479
112530720420	Storage bin, stackable 3072	1.479
112530720520	Storage bin, stackable 3072	1.479
112530720720	Storage bin, stackable 3072	1.479
112530720820	Storage bin, stackable 3072	1.479
112530730150	Storage bin, stackable 3073	0.543
112530730420	Storage bin, stackable 3073	0.543
112530730520	Storage bin, stackable 3073	0.543
112530730720	Storage bin, stackable 3073	0.543
112530730820	Storage bin, stackable 3073	0.543
112530740150	Storage bin, stackable 3074	0.228
112530740420	Storage bin, stackable 3074	0.228
112530740520	Storage bin, stackable 3074	0.228
112530740720	Storage bin, stackable 3074	0.228
112530740820	Storage bin, stackable 3074	0.228
112530750150	Storage bin, stackable 3075	0.078
112530750420	Storage bin, stackable 3075	0.078
112530750520	Storage bin, stackable 3075	0.078
112530750720	Storage bin, stackable 3075	0.078
112530750820	Storage bin, stackable 3075	0.078
112531010120	Storage tray 3101	0.203
112531010420	Storage tray 3101	0.203
112531030120	Storage tray 3103	0.33
112531030420	Storage tray 3103	0.33
112531110120	Storage tray 3111	0.291
112531110420	Storage tray 3111	0.291
112531110429	Storage tray 3111 / container	0.291
112531110720	Storage tray 3111	0.291
112531130120	Storage tray 3113	0.415
112531130420	Storage tray 3113	0.415
112531130429	Storage tray 3113 / container	0.415
112531210120	Storage tray 3121	0.369
112531210420	Storage tray 3121	0.39
112531210429	Storage tray 3121 / container	0.39
112531230120	Storage tray 3123	0.6
112531230420	Storage tray 3123	0.6
112531230429	Storage tray 3123 / container	0.6
112531310120	Storage tray 3131	0.44

112531310420	Storage tray 3131	0,44
112531330120	Storage tray 3133	0,7
112531330420	Storage tray 3133	0,7
112540670320	Combi bin, 4067	0,46

Visual representation of the representative product:



UN CPC code: 3814

Product description: Axjo's storage solutions include a wide range of plastic storage bins, modular containers, and stackable boxes designed to optimize logistics, warehousing, and material handling. Built from recycled plastic and engineered for industrial performance, the storage systems help reduce waste and increase operational efficiency across industries.

Name and location of production site: All included products are produced at Axjo in Gislaved, Sweden.

Multiple products: All products included in this EPD are Storage bins: 100% recycled (PCR). 82 variations will be included in this product group, and they all consist solely out of 100% post-consumer recycled plastic. Each product has the same type of composition, with the type of storage bin and its respective total weight of the products differ. All included products share the same geographical scope and production site.

For this product group, an average product has been defined based on a weighted average of the weight and sales share from 2024 statistics of all included storage bins. The average product has a mass of 0.413 kg per product and represents 82 product variants (see full list above in "Product identification". Several storage bins share the same product name and mass but differ in article number due to colour variations. Of the total 82 products, 28 unique weights exist. The 28 unique weights and the number of products for each weight are presented in below. The individual product masses within the product group range from 0.078 kg to 1.479 kg.

The total weight of the included product differs between 0.078-1.479 kg. The deviation of the GWP-GHG value of each of the unique 28 weight relative to the presented results for the weighted average product can be seen in "Additional LCA results", as well as the variation of the environmental impact indicator results for modules A-C between any of the products that exceeds 10%.

Unique weight of all included 82 products are presented in the table below with the weighted average (including sales shares) of 0.413 kg.

Products	Weights (kg)
Storage tray 3001	0.168
Storage tray 3003	0.245
Storage tray 3011	0.24
Storage tray 3013	0.325
Storage tray 3013	0.321
Storage tray 3021	0.29
Storage tray 3023	0.71
Storage tray 3031	0.357
Storage tray 3033	0.54
Modular bin, stackable 3067	0.43
Modular bin, stackable 3068	0.559
Modular bin, stackable 3069	0.69
Modular bin, stackable 3070	0.79
Storage bin, stackable 3071	1.146
Storage bin, stackable 3072	1.479
Storage bin, stackable 3073	0.543
Storage bin, stackable 3074	0.228
Storage bin, stackable 3075	0.078
Storage tray 3101	0.203
Storage tray 3103	0.33
Storage tray 3111	0.291
Storage tray 3113	0.415
Storage tray 3121	0.369
Storage tray 3121	0.39
Storage tray 3123	0.6
Storage tray 3131	0.44
Storage tray 3133	0.7
Combi bin, 4067	0.46

CONTENT DECLARATION

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Weight range in additional products (kg)	Biogenic material, mass-% of product	Biogenic material, kg C/product or declared unit
PCR plastic (PP)	0.407	100%	0.077-1.458	0%	0%
Pigment	0.006	0%	0.0011 – 0.021	0%	0%
TOTAL	0.413	99%	0.078-1.479	0%	0%

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/product or declared unit
Corrugated cardboard box	0.047	11%	0.012
Pallet (wood)	0.033	8.8%	0.009
TOTAL	0.046	19.8%	0.021

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO₂. No Substances of Very High Concern (SVHC) has been reported.

LCA INFORMATION

Functional unit: 1 storage bin with a reference service life of 15 years.

Conversion factor to mass: 0.413 kg/piece

Reference service life: The reference service life (RSL) and estimated service life (ESL) is 15 years, in accordance with NPCR 026 (EPD Norge, 2024) as well as on written expert statements from AXJO.

Time representativeness: The collected data is representative of the year 2024, except for electricity use which is based on 2025, and was obtained directly from the supplier.

Geographical scope: The supply of raw material A1 and transport A2 is modelled for Europe, the manufacturing A3 is modelled for Sweden. Module C and D scenarios are for modelled for Europe.

Database(s) and LCA software used: Ecoinvent 3.11 and SimaPro Craft 10.3.0.1.

LCIA method:

The LCIA method follows the standard for Construction Products EN 15804:2012+A2:2019/AC:2021. EN 15804:2012+A2:2019/AC:2021 uses the impact categories and characterization factors of the LCIA methods used in Environmental Footprint 3.1 (EF 3.1), with the only difference that biogenic carbon dioxide uptake is calculated as -1 and biogenic carbon dioxide emissions as +1, where EF 3.1 calculates this as 0 and 0, respectively.

Cut-off criteria:

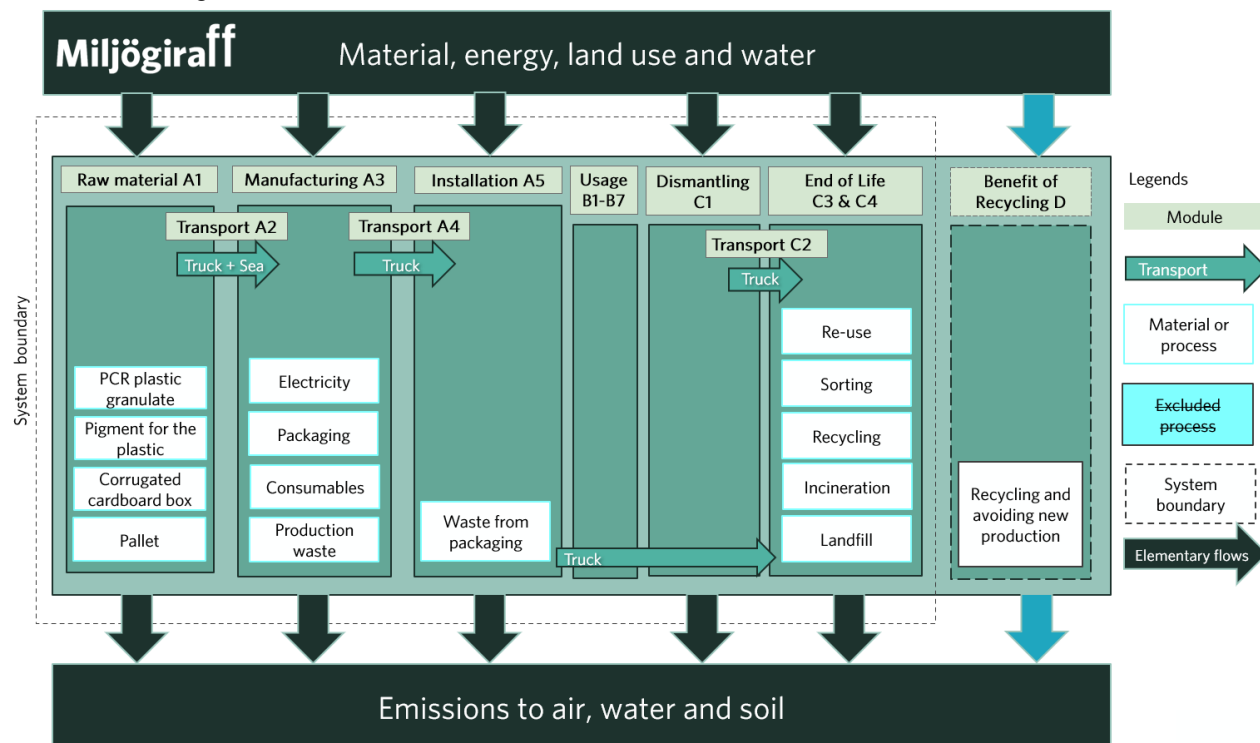
The cut-off criteria established by the PCR is 1% of all material and energy flows to a single unit process and 5% of total inflows (mass and energy) per module. No cut-offs exceeding this limit have been made.

In this study, the infrastructure and capital goods are included in the LCA analysis since it is not possible within reasonable effort to subtract the data on infrastructure/capital goods.

Description of system boundaries:

Option c) Cradle to grave and module D (A + B + C + D). However, since the product is a passive product, there will be no environmental impact during the use phase.

Process flow diagram:



More information:

(A1-A2) Axjo's Storage bin: 100% recycled plastic (PCR) consists of 98% plastic and 2% pigment. The plastic used in Axjo's storage bins 100% recycled (PCR) consists entirely of post-consumer recycled plastic material. The recycled plastic is represented with the dataset "*Polypropylene, pellets, recycled {RER} | treatment of waste polypropylene, recycling | Cut-off, U*". The dataset is regionalized to Swedish electricity mix and Swedish heat, and the GWP-GHG intensity is 598 kg CO₂ eq./tonne. The plastic is sourced from suppliers in Sweden and transported by truck to Axjo in Gislaved, Sweden.

(A3) The storage bin is manufactured at Axjo's facility in Gislaved, Sweden, where recycled plastic or virgin plastic is melted and moulded into the final products. Electricity use amounts to 0.23kWh per Storage bin: 100% recycled (PCR), and no direct emissions occur. Lubricants are used as consumables and allocated based on annual production volumes. Internal plastic scrap (1.07–2.4%) is fully recycled in-house, while other waste generated at the factory is allocated by mass and modelled using representative ecoinvent datasets. The Storage bin: 100% recycled (PCR) is packaged using cardboard box and a single-use pallet.

Axjo use certified nuclear electricity, and it is represented by the dataset "*Electricity, high voltage {SE} | electricity production, nuclear, boiling water reactor | Cut-off, U*", adding 7% transmission losses, impact from transition network for medium voltage, and input and emission of Sulfur hexafluoride used in high and medium voltage switchgear. The climate footprint of the electricity mix is 0.00339 kg CO₂-eq per kWh.

Mass-based allocation was applied to shared site-level flows (electricity, waste, consumables), as no joint multi-output processes were identified and economic allocation was not relevant.

(A4) The finished storage bin is transported to an average customer in Wuppertal, Germany, by diesel truck, EURO 6, with a total transport distance of 970 km.

(A5) Installation is assumed to be manual and does not cause additional environmental impacts. The only impacts reported in this module are from end-of-life treatment of the packaging materials, in accordance with the waste scenarios in Module C.

(B1-B7) The storage bin is a passive product and therefore, there is no environmental impacts during the use phase.

(C1-C4) After use the product is transported to waste processing. In the C module, default values provided by the PCR 2019:14 v.2.0.1 were used for demolition/deconstruction (C1) as no specific data was obtained. The default values for transport distances to waste treatment (C2) were also used, 80 km for materials not to be incinerated and 130 km for materials to be incinerated. The transport is modelled using a diesel truck, 16-32 metric ton, EURO5.

For the waste treatment (C3-C4), the relevant end-of-life scenario has been represented with a European case. Recycling rates for different materials have been adjusted according to post-consumer non-packaging recycling rates (R2) used in the Circular footprint formula of PEF, as found in Annex C¹. The remaining waste is assumed to be incinerated (54%) and landfilled (46%), according to the European average scenario stated in PEF Annex C.

As the end-of-life scenario for the product and product packaging is a mix of recycling, incineration and landfill, a 100% scenario for each waste scenario will also be declared as per PCR rules. The results for the 100% scenarios can be found in "Additional LCA results".

(D) Module D accounts for the potential environmental benefits or burdens resulting from material recycling and energy recovery during incineration.

Data quality summary according to EN 15941:

The EPD is based on data collected by Axjo from their site in Gislaved, Sweden over one year from 2024 except for electricity use which is based on 2025 as this provides a more accurate depiction of Axjo manufacturing. The EPD is representative of the production of Storage bins made from 100% recycled (PCR) plastic, produced in Gislaved, Sweden. Primary data is collected directly from supplier and production site which is complemented with representative secondary data from the Ecoinvent database v.3.11. The end-of-life stage of the EPD follow a European scenario. The quality of the relevant data used for the EPD using EN 15804:2012+A2:2019, Annex E, E.1, is in terms of geographical representativeness very good and good, technical representativeness very good, good and fair, and for time representativeness very good, good and fair. The reason for using the datasets with fair technology representativeness is that they were stated to be "unknown" but had very good time representativeness. The reason for using the dataset with fair time representativeness and fair technology representativeness is that no other alternative existed but since it was last edited in 2018 it indicates that it has been reviewed and updated. The relevant data assessed included no other poor or very poor data.

¹ R2 values, available at <https://eplca.jrc.ec.europa.eu/LCDN/developerEF.xhtml>

Modules declared, geographical scope, share of primary data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	EUR	EUR	SE	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
Share of primary data	2.2%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	-72%/ +228%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Declaration of data sources, reference years, data categories, and share of primary data:

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
Waste plastic, mixture {RER} market group for waste plastic, mixture Cut-off, U	Collected data, Database	EPD Owner, Ecoinvent v3.11	2024	Representative secondary data	0%
Corrugated board box {RER} market for corrugated board box Cut-off, U	Collected data, Database	EPD Owner, Ecoinvent v3.11	2024	Representative secondary data	0%
Electricity	Collected data, Database	EPD Owner, Ecoinvent v3.11	2024	Primary data	0.98%
Transport	Collected data, Database	EPD Owner, Ecoinvent v3.11	2024	Primary data	1.21%
Other processes	Collected data, Database	EPD Owner, Ecoinvent v3.11	2024	Representative secondary data	0%
Total share of primary data, of GWP-GHG results for A1-A3					2.2%

The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

ENVIRONMENTAL PERFORMANCE

LCA results of the product(s) - main environmental performance results

Mandatory impact category indicators according to EN 15804

Results per 1 piece of storage bin										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	5,2E-01	8,9E-02	1,3E-01	0,0E+00	1,6E-04	8,1E-03	4,5E-01	1,4E-03	2,6E-01
GWP-fossil	kg CO ₂ eq.	6,4E-01	8,9E-02	2,2E-03	0,0E+00	1,6E-04	8,1E-03	4,5E-01	1,4E-03	2,7E-01
GWP-biogenic	kg CO ₂ eq.	-1,2E-01	1,9E-05	1,3E-01	0,0E+00	1,8E-08	1,7E-06	6,1E-06	4,2E-07	-1,7E-02
GWP-luluc	kg CO ₂ eq.	3,3E-03	3,0E-05	7,7E-07	0,0E+00	1,7E-08	2,7E-06	2,7E-06	2,4E-07	9,0E-04
ODP	kg CFC 11 eq.	2,1E-07	1,9E-09	4,5E-11	0,0E+00	2,4E-12	1,8E-10	1,4E-10	4,6E-11	2,8E-08
AP	mol H ⁺ eq.	2,3E-03	1,9E-04	1,2E-05	0,0E+00	1,5E-06	2,6E-05	1,0E-04	9,4E-06	-2,6E-04
EP-freshwater	kg P eq.	2,7E-05	6,6E-07	2,3E-08	0,0E+00	5,8E-10	5,9E-08	1,3E-07	7,5E-09	-1,3E-05
EP-marine	kg N eq.	7,3E-04	4,5E-05	5,0E-06	0,0E+00	6,8E-07	8,6E-06	4,9E-05	4,0E-06	1,2E-04
EP-terrestrial	mol N eq.	6,5E-03	5,0E-04	5,1E-05	0,0E+00	7,5E-06	9,5E-05	5,0E-04	4,4E-05	-4,4E-04
POCP	kg NMVOC eq.	2,1E-03	3,0E-04	1,7E-05	0,0E+00	2,2E-06	3,9E-05	1,3E-04	1,6E-05	2,2E-03
ADP-minerals&metals*	kg Sb eq.	3,2E-06	3,1E-07	6,0E-09	0,0E+00	5,9E-11	2,7E-08	1,8E-08	1,6E-09	2,0E-06
ADP-fossil*	MJ	1,6E+01	1,3E+00	3,1E-02	0,0E+00	2,1E-03	1,1E-01	8,0E-02	3,4E-02	1,4E+01
WDP*	m ³	2,9E-01	5,0E-03	6,3E-05	0,0E+00	4,6E-06	4,4E-04	2,0E-03	1,2E-04	3,2E-01
Acronyms	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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption									

Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3). Negative values in Module D represent potential net benefits from material recycling and energy recovery beyond the system boundary.

Note: Biogenic carbon in packaging is balanced in A1–A3.

** Disclaimer: 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.*

Additional mandatory and voluntary impact category indicators

Results per 1 piece of storage bin

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-GHG²	kg CO ₂ eq.	6,5E-01	8,9E-02	3,3E-03	0,0E+00	1,6E-04	8,1E-03	4,5E-01	1,4E-03	2,6E-01
PM	disease inc.	2,3E-08	6,7E-09	2,3E-10	0,0E+00	4,2E-11	6,4E-10	5,2E-10	2,4E-10	-1,1E-08
IR³	kBq U-235 eq	4,0E-01	5,5E-04	2,7E-05	0,0E+00	3,6E-07	5,0E-05	1,5E-04	1,2E-05	-6,0E-02
ETP – FW*	CTUe	4,3E+00	1,7E-01	1,5E-02	0,0E+00	1,2E-04	1,5E-02	9,6E-01	1,8E-03	-2,5E-01
HTP – C*	CTUh	3,6E-10	1,5E-11	9,6E-13	0,0E+00	1,7E-14	1,4E-12	2,5E-11	1,7E-13	-1,7E-10
HTP – NC*	CTUh	5,1E-08	8,0E-10	5,3E-11	0,0E+00	2,6E-13	7,2E-11	1,0E-09	4,7E-12	-9,8E-10
Land use, SQP*	Pt	1,3E+01	7,6E-01	2,5E-02	0,0E+00	1,4E-04	6,8E-02	1,7E-02	6,6E-02	-1,4E+01
Acronyms	GWP-GHG: Global Warming Potential, Greenhouse Gases, PM: Particulate Matter, IRP: Ionizing Radiation - Human Health, ETP-FW: Ecotoxicity Potential – Freshwater, HTP-C: Human Toxicity Potential – Cancer, HTP-NC: Human Toxicity Potential – Non-Cancer, SQP: Soil Quality Potential Index									

Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017

Disclaimer: The results of the impact categories land use, human toxicity (cancer), human toxicity, non-cancer and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes. Negative values in Module D represent potential net benefits from material recycling and energy recovery beyond the system boundary.

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

² This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

³ 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 indicators

Results 1 piece of storage bin										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ	3,1E+00	2,1E-02	8,9E-04	0,0E+00	1,3E-05	1,9E-03	5,7E-03	6,7E-04	-4,1E+00
PERM	MJ	1,4E+00	0,0E+00	-1,36E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
PERT	MJ	4,5E+00	2,1E-02	-1,4E+00	0,0E+00	1,3E-05	1,9E-03	5,7E-03	6,7E-04	-4,1E+00
PENRE	MJ	1,6E+01	1,3E+00	3,3E-02	0,0E+00	2,3E-03	1,2E-01	8,6E-02	3,6E-02	1,6E+01
PENRM	MJ	1,3E+01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	-1,3E+01	0,0E+00	0,0E+00
PENRT	MJ	2,9E+01	1,3E+00	3,3E-02	0,0E+00	2,3E-03	1,2E-01	-1,3E+01	3,6E-02	1,6E+01
SM	kg	4,2E-01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
RSF	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	0,0E+00
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	0,0E+00
FW	m ³	1,4E-02	1,9E-04	2,2E-05	0,0E+00	1,6E-07	1,7E-05	7,5E-04	3,5E-05	-2,2E-03
Acronyms	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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water									

Disclaimer: Negative values in Module D represent potential net benefits from material recycling and energy recovery beyond the system boundary.

Waste indicators

Results per 1 piece of storage bin										
Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Non-hazardous waste disposed	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Radioactive waste disposed	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00

Output flow indicators

Results per 1 piece of storage bin										
Indicator	Unit	A1-A3	A4	A5	B1	C1	C2	C3	C4	D
Components for re-use	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Material for recycling	kg	2,3E-01	0,0E+00	3,5E-02	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Materials for energy recovery	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Exported energy, electricity	MJ	1,2E-01	0,0E+00	9,0E-02	0,0E+00	0,0E+00	0,0E+00	1,4E+00	0,0E+00	0,0E+00
Exported energy, thermal	MJ	2,8E-01	0,0E+00	2,1E-01	0,0E+00	0,0E+00	0,0E+00	3,3E+00	0,0E+00	0,0E+00

Additional LCA results (other environmental performance results) of the product(s)

The deviation of the GWP-GHG value for A1-A3 relative the representative product for the different products included in this EPD can be seen in the table below.

Product	Difference relative to representative product
Storage tray 3001	-52%
Storage tray 3003	-36%
Storage tray 3011	-37%
Storage tray 3013	-19%
Storage tray 3013	-20%
Storage tray 3021	-26%
Storage tray 3023	+64%
Storage tray 3031	-12%
Storage tray 3033	+27%
Modular bin, stackable 3067	+4%
Modular bin, stackable 3068	+31%
Modular bin, stackable 3069	+59%
Modular bin, stackable 3070	+81%
Storage bin, stackable 3071	+157%
Storage bin, stackable 3072	+228%
Storage bin, stackable 3073	+28%
Storage bin, stackable 3074	-40%
Storage bin, stackable 3075	-72%
Storage tray 3101	-45%

Storage tray 3103	-18%
Storage tray 3111	-26%
Storage tray 3113	0%
Storage tray 3121	-9%
Storage tray 3121	-5%
Storage tray 3123	+40%
Storage tray 3131	+6%
Storage tray 3133	+61%
Combi bin 4067	+10%

The variation of the environmental impact indicators that differ by more than 10% between the included products is declared below. Variation is calculated as the maximum deviation between any of the included products.

For the indicators *Climate change – biogenic* and *Land use*, the results include both negative values (carbon storage or credits) and positive values (emissions). For these indicators, percentage-based variation is not considered meaningful and is therefore not quantified.

The observed variation for the remaining indicators is mainly driven by differences in product mass, which ranges from 0.078 to 1.479 kg. All products consist of 100% recycled plastic and are manufactured using the same production processes and are therefore considered suitable to be represented by the declared average product.

Indicator	Variation between products (%)
Climate change - Fossil	1310%
Climate change – Biogenic	N/A
Climate change - Land use and LU change	569%
Climate change	1211%
Ozone depletion	2367%
Acidification	2278%

Eutrophication, freshwater	491%
Eutrophication, marine	1791%
Eutrophication, terrestrial	2120%
Photochemical ozone formation	1999%
Resource use, minerals and metals	1147%
Resource use, fossils	2947%
Water use	1647%
Particulate matter	1229%
Human toxicity, cancer	1332%
Human toxicity, non-cancer	1638%
Land use	542%
GWP-GHG	1296%
Freshwater ecotoxicity	1002%

100% Recycling Scenario for modules A5, C1-C4 & D

Mandatory impact category indicators according to EN 15804, per 1 piece of storage bin

Indicator	Unit	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	1,3E-01	1,6E-04	6,3E-03	6,9E-04	0,0E+00	-8,8E-03
GWP-fossil	kg CO ₂ eq.	1,4E-03	1,6E-04	6,3E-03	6,9E-04	0,0E+00	-9,4E-03
GWP-biogenic	kg CO ₂ eq.	1,3E-01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
GWP-luluc	kg CO ₂ eq.	5,9E-07	1,7E-08	2,1E-06	9,3E-07	0,0E+00	5,8E-04
ODP	kg CFC 11 eq.	3,0E-11	2,4E-12	1,4E-10	1,1E-11	0,0E+00	3,2E-10
AP	mol H ⁺ eq.	5,7E-06	1,5E-06	2,0E-05	5,0E-06	0,0E+00	-1,1E-04
EP-freshwater	kg P eq.	1,5E-08	5,8E-10	4,6E-08	3,1E-08	0,0E+00	-5,2E-07
EP-marine	kg N eq.	2,0E-06	6,8E-07	6,7E-06	1,8E-06	0,0E+00	4,3E-05
EP-terrestrial	mol N eq.	2,2E-05	7,5E-06	7,4E-05	2,0E-05	0,0E+00	-2,1E-04
POCP	kg NMVOC eq.	8,4E-06	2,2E-06	3,1E-05	6,0E-06	0,0E+00	-1,1E-04
ADP-minerals&metals*	kg Sb eq.	4,3E-09	5,9E-11	2,1E-08	7,8E-10	0,0E+00	1,8E-08
ADP-fossil*	MJ	2,1E-02	2,1E-03	8,9E-02	1,2E-02	0,0E+00	-3,7E-01
WDP*	m ³	8,4E-05	4,6E-06	3,5E-04	7,6E-05	0,0E+00	1,1E-02
GWP-GHG⁴	kg CO ₂ eq.	1,4E-03	1,6E-04	6,3E-03	6,9E-04	0,0E+00	-3,9E-03
Acronyms	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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption, GWP-GHG: Global Warming Potential for Greenhouse Gases						

Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3). Negative values in Module D represent potential net benefits from material recycling and energy recovery beyond the system boundary.

Note: Biogenic carbon in packaging is balanced in A1–A3.

** Disclaimer: 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.*

⁴ This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

100% Incineration Scenario for modules A5, C1-C4 & D

Mandatory impact category indicators according to EN 15804, per 1 piece of storage bin

Indicator	Unit	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	1,4E-01	1,6E-04	1,0E-02	9,8E-01	0,0E+00	8,1E-03
GWP-fossil	kg CO ₂ eq.	4,0E-03	1,6E-04	1,0E-02	9,8E-01	0,0E+00	9,4E-03
GWP-biogenic	kg CO ₂ eq.	1,3E-01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
GWP-luluc	kg CO ₂ eq.	1,2E-06	1,7E-08	3,4E-06	4,7E-06	0,0E+00	-1,3E-03
ODP	kg CFC 11 eq.	6,8E-11	2,4E-12	2,2E-10	2,9E-10	0,0E+00	2,1E-08
AP	mol H ⁺ eq.	2,5E-05	1,5E-06	3,3E-05	2,1E-04	0,0E+00	-1,7E-03
EP-freshwater	kg P eq.	4,3E-08	5,8E-10	7,5E-08	2,4E-07	0,0E+00	-3,8E-05
EP-marine	kg N eq.	1,1E-05	6,8E-07	1,1E-05	1,0E-04	0,0E+00	-2,4E-04
EP-terrestrial	mol N eq.	1,1E-04	7,5E-06	1,2E-04	1,1E-03	0,0E+00	-3,5E-03
POCP	kg NMVOC eq.	3,3E-05	2,2E-06	5,0E-05	2,7E-04	0,0E+00	1,4E-03
ADP-minerals&metals*	kg Sb eq.	1,0E-08	5,9E-11	3,4E-08	3,9E-08	0,0E+00	1,5E-06
ADP-fossil*	MJ	4,4E-02	2,1E-03	1,4E-01	1,6E-01	0,0E+00	8,0E+00
WDP*	m ³	4,3E-04	4,6E-06	5,6E-04	4,4E-03	0,0E+00	2,3E-01
GWP-GHG⁵	kg CO ₂ eq.	4,0E-03	1,6E-04	1,0E-02	9,8E-01	0,0E+00	-1,9E-02
Acronyms	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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption, GWP-GHG: Global Warming Potential for Greenhouse Gases						

Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3). Negative values in Module D represent potential net benefits from material recycling and energy recovery beyond the system boundary.

Note: Biogenic carbon in packaging is balanced in A1–A3.

** Disclaimer: 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 This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

100% Landfill Scenario for modules A5, C1-C4 & D

Mandatory impact category indicators according to EN 15804, per 1 piece of storage bin

Indicator	Unit	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	1,3E-01	1,6E-04	6,3E-03	6,9E-04	2,5E-03	4,3E-01
GWP-fossil	kg CO ₂ eq.	2,1E-03	1,6E-04	6,3E-03	6,9E-04	2,5E-03	4,3E-01
GWP-biogenic	kg CO ₂ eq.	1,3E-01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
GWP-luluc	kg CO ₂ eq.	7,2E-07	1,7E-08	2,1E-06	9,3E-07	4,5E-07	1,7E-04
ODP	kg CFC 11 eq.	5,0E-11	2,4E-12	1,4E-10	1,1E-11	8,5E-11	3,1E-08
AP	mol H ⁺ eq.	1,0E-05	1,5E-06	2,0E-05	5,0E-06	1,7E-05	7,3E-04
EP-freshwater	kg P eq.	2,0E-08	5,8E-10	4,6E-08	3,1E-08	1,4E-08	2,0E-06
EP-marine	kg N eq.	4,5E-06	6,8E-07	6,7E-06	1,8E-06	7,5E-06	1,5E-04
EP-terrestrial	mol N eq.	4,3E-05	7,5E-06	7,4E-05	2,0E-05	8,2E-05	1,4E-03
POCP	kg NMVOC eq.	1,6E-05	2,2E-06	3,1E-05	6,0E-06	3,0E-05	2,8E-03
ADP-minerals&metals*	kg Sb eq.	5,3E-09	5,9E-11	2,1E-08	7,8E-10	2,9E-09	2,2E-06
ADP-fossil*	MJ	3,6E-02	2,1E-03	8,9E-02	1,2E-02	6,3E-02	1,9E+01
WDP*	m ³	-6,5E-05	4,6E-06	3,5E-04	7,6E-05	2,1E-04	3,4E-01
GWP-GHG⁶	kg CO ₂ eq.	4,1E-03	1,6E-04	6,3E-03	6,9E-04	2,5E-03	4,1E-01
Acronyms	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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption, GWP-GHG: Global Warming Potential for Greenhouse Gases						

Disclaimer: The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3). Negative values in Module D represent potential net benefits from material recycling and energy recovery beyond the system boundary.

Note: Biogenic carbon in packaging is balanced in A1–A3.

** Disclaimer: 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.*

⁶ This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

ABBREVIATIONS

Abbreviation	Definition
General Abbreviations	
EN	European Norm (Standard)
EPD	Environmental Product Declaration
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
PCR	Product Category Rules
c-PCR	Complementary Product Category Rules
CEN	European Committee for Standardization
CPC	Central product classification
GHG	Greenhouse Gas
PEF	Product Environmental Footprint
Environmental Impact Indicators (EN 15804)	
GHG	Greenhouse Gas
GWP	Global Warming Potential (kg CO ₂ eq.)
GWP-fossil	Global Warming Potential from fossil sources (kg CO ₂ eq.)
GWP-biogenic	Global Warming Potential from biogenic sources (kg CO ₂ eq.)
GWP-luluc	Global Warming Potential from land use and land use change (kg CO ₂ eq.)
GWP-total	Total Global Warming Potential (kg CO ₂ eq.)
GWP-GHG	Global Warming Potential for greenhouse gases (kg CO ₂ eq.)
ODP	Ozone Depletion Potential (kg CFC-11 eq.)
AP	Acidification Potential (mol H ⁺ eq.)
EP	Eutrophication Potential
EP-freshwater	Freshwater eutrophication potential (kg P eq.)
EP-marine	Marine eutrophication potential (kg N eq.)
EP-terrestrial	Terrestrial eutrophication potential (mol N eq.)
POCP	Photochemical Ozone Creation Potential (kg NMVOC eq.)
ADP	Abiotic Depletion Potential
ADP-minerals&metals	Abiotic depletion potential for non-fossil resources (kg Sb eq.)
ADP-fossil	Abiotic depletion potential for fossil resources (MJ)
WDP	Water Deprivation Potential (m ³)
Resource Use Indicators	
PERE	Renewable primary energy (excluding as raw materials) (MJ)
PERM	Renewable primary energy used as raw materials (MJ)
PERT	Total renewable primary energy (MJ)
PENRE	Non-renewable primary energy (excluding as raw materials) (MJ)
PENRM	Non-renewable primary energy used as raw materials (MJ)
PENRT	Total non-renewable primary energy (MJ)
SM	Use of secondary material (kg)
RSF	Use of renewable secondary fuels (MJ)
NRSF	Use of non-renewable secondary fuels (MJ)
FW	Use of net fresh water (m ³)
HW	Hazardous Waste (disposed) (kg)
NHW	Non-Hazardous Waste (disposed) (kg)
RW	Radioactive Waste (disposed) (kg)
Output Flow Indicators	
CFR	Components for Reuse (kg)
MR	Material for Recycling (kg)
MER	Materials for Energy Recovery (kg)
EEE	Exported Energy, Electricity (MJ)
EET	Exported Energy, Thermal (MJ)
Lifecycle Stages / Modules	

A1	Raw material supply
A2	Transport
A3	Manufacturing
A4	Transport to site
A5	Construction/Installation
B1	Use
B2	Maintenance
B3	Repair
B4	Replacement
B5	Refurbishment
B6	Operational energy use
B7	Operational water use
C1	Deconstruction/Demolition
C2	Transport to waste processing
C3	Waste processing
C4	Disposal
D	Reuse-Recovery-Recycling potential
Other Relevant Terms	
SVHC	Substances of Very High Concern
EC No.	European Community Number
CAS No.	Chemical Abstracts Service Number
MJ	Megajoule
kg	Kilogram
m ³	Cubic Meter
NMVOC	Non-Methane Volatile Organic Compounds
Sb eq.	Antimony Equivalents
P eq.	Phosphorus Equivalents
N eq.	Nitrogen Equivalents
CFC-11 eq.	Chlorofluorocarbon-11 Equivalents
CO ₂ eq.	Carbon Dioxide Equivalents
kg C	Kilograms of Carbon
kg CO ₂ eq.	Kilograms of Carbon Dioxide Equivalent
ND	Not Declared
PCR plastic	Post-consumer recycled plastic
PP	Polypropylene
LDPE	Low-density polyethylene
RSL	Reference service life

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VERSION HISTORY

Original Version of the EPD, 2026-04-13

