

Environmental Product Declaration



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

Hinged Steel Doors – Single doors

from

Hellbergs Door Company AB

This EPD includes multiple product variations and is based on the HD100-series hinged single door. The product is representative of the HD100-, HD200- and the HD300-series as steel door solutions.



Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products from a company
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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
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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; c-PCR-007 Windows and doors (EN 17213:2020), version 1.0.1, valid until 2026-10-30.</i> UN CPC code: 4212
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>

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:

Hellbergs Door Company AB

Address:

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Contact:

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

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Description of the organisation:

Since 1950, Hellbergs Door Company AB has manufactured high-quality rated steel doors – including fire, security, acoustic, and specialized doors – with a strong focus on protecting lives and property. All development and production take place at the company's own facility in Mellerud, where the entire process from raw material to finished product is controlled to ensure high quality and flexibility. The products are certified for fire resistance, smoke resistance, sound reduction and burglary resistance. The company offers both standard solutions and customized options for the construction, property, and industrial sectors across the Nordic region. Its goal is to be a long-term, reliable partner and the first choice for technical steel doors, defined by flexibility, quality, and dependable delivery.

Product-related or management system-related certifications: ISO 9001 & ISO 14001.

PRODUCT INFORMATION

Product name:

Hinged Steel Doors – Single doors

Product identification:

All included products in the EPD are hinged steel doors – Single doors.

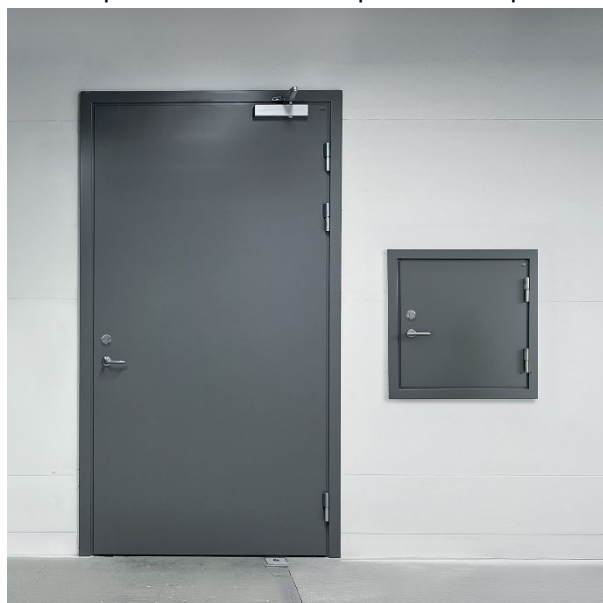
Included products are:

HD100-1 (interior); HD110-1 (exterior) – door leaf thickness: 54mm

HD200-1 (interior); HD210-1 (exterior) – door leaf thickness: 59mm

HD300-1 (interior); HD310-1 (exterior) – door leaf thickness: 88mm

Visual representation of the representative product:



UN CPC code: 4212

Product description:

Hellbergs offers a range of steel door solutions designed for different applications and performance requirements. The product range includes three main series: HD100, HD200, and HD300. The different series are available in interior and exterior versions. There is no difference in design, materials, or composition between the interior and exterior doors; they differ only in CE marking. The hatch, presented to the right in the visual representation, is classified as a single door and is included in the EPD.

Name and location of production site:

All included products are produced at Hellbergs in Mellerud, Sweden.

Multiple products:

All products included in this EPD are single doors including HD100 single, HD200 single and HD300 single (both interior and exterior). HD100 single door has been chosen as the representative product as it is the most sold door type. The dimensions of a single door are 1230 x 2180 mm, corresponding to 2,68 m². This dimension is based on standard sizes defined in C-PCR-007 (version 1.0.0), referring to EN 17213:2020.

The deviation of the GWP-GHG value relative to the representative 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%.

CONTENT DECLARATION

Content declaration is presented for the representative product HD100 single steel door and per declared unit 1 m² door. The content declaration also presents the material and weight ranges of included products in the EPD. The total weight range represents the actual range of the included products, as no product sits at the lowest or highest end of every material.

Product content	Mass, kg/m ²	Weight range in additional products (kg/m ²)	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/product or declared unit
Steel	29,6	28 - 30	5,5%	0%	0
Silicon	0,3	0,3 - 0,3	0%	0%	0
Mineral materials	6,7	6,7 - 7,6	0%	0%	0
Plastic	0,01	0,01 - 0,01	0%	0%	0
Glue	0,28	0,067 - 0,28	0%	0%	0
Other materials	0,048	0,05 - 0,12	0%	0%	0
Paint	0,18	0,18 - 0,18	0%	0%	0
Total	37	36 - 40	4,2%	0%	0

Packaging materials	Mass, kg/m ²	Mass-% (versus the product)	Biogenic material, kg C/product or declared unit
Plastic foam	0,003	0,0081%	0,0
Plastic film	0,03	0,081%	0,0
PET band	0,007	0,019%	0,0
Wooden pallet	1,01	2,7%	0,44
Boards and wooden blocks	1,3	3,4%	0,55
Total	2,3	6,2%	0,99

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) have been reported.

LCA INFORMATION

Declared unit:

1 m² door

Reference service life (RSL):

30 years

Conversion factor:

HD100 single door (standard dimensions 1,23x2,18m): 37 kg per m²

Time representativeness:

The collected data is representative of the year 2025 and was obtained directly from the supplier.

Geographical scope:

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

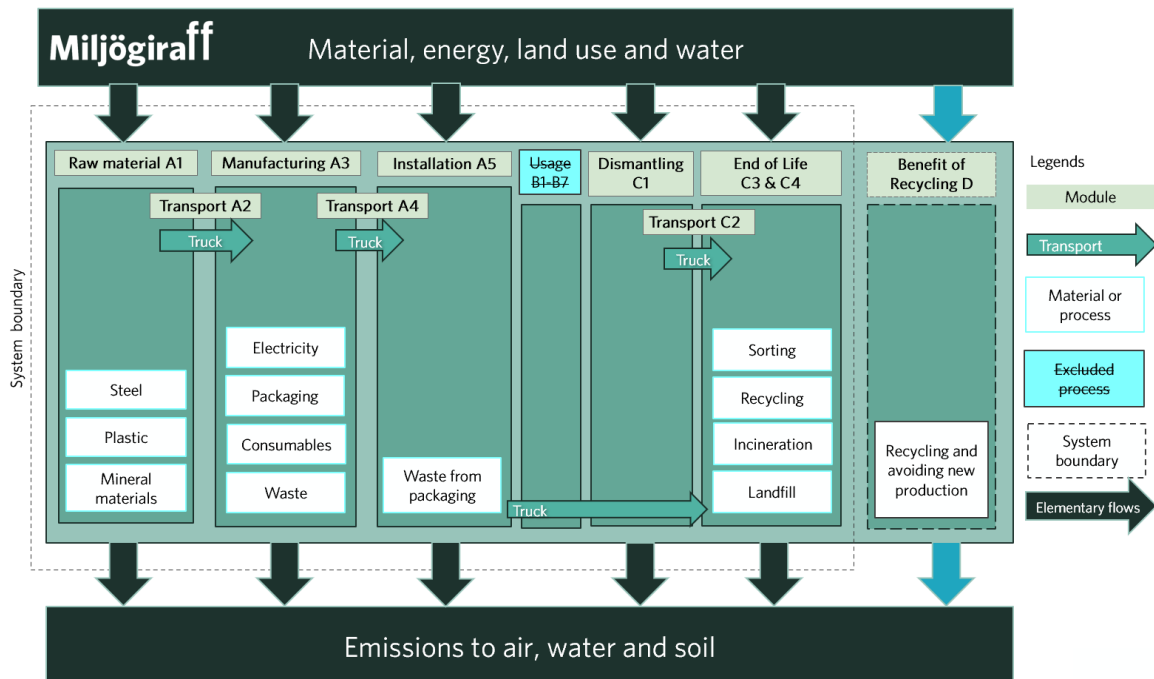
In this study, the infrastructure and capital goods are included in the LCA analysis since it is not possible within reasonable effort to subtract the data on infrastructure/capital goods.

Water directly related to production processes and facility operations supporting production has been considered in the study. Sanitary water use (e.g., toilets and showers) is primarily related to employee presence rather than production volume and is therefore not directly linked to the product system. In addition, background datasets from ecoinvent include water use associated with upstream processes. Compared to the main flows included in the inventory (materials, energy, and process water), sanitary water use is considered environmentally insignificant and was therefore excluded.

Description of system boundaries:

Type b, cradle to gate with options, module C1-C4, module D and additional modules A4-A5.

Process flow diagram:



More information:

(A1-A2) Hellbergs hinged steel doors mainly consist of steel as well as other components of plastic and mineral materials. Most of the steel used comes from a supplier in Europe that has an EPD for the steel, and the raw material is transported by truck to Hellbergs in Mellerud, Sweden. The various other materials and components come from different suppliers globally.

(A3) The hinged steel doors are manufactured at Hellberg's facility in Mellerud, Sweden. During manufacturing, Hellbergs uses consumables and generates production waste. The product is packaged on pallets with support wood structure and plastic film and straps.

Electricity use amounts to 13,64 kWh per produced m². 11% of the electricity comes from Hellbergs own solar panels, and the remaining 89% is purchased certified nuclear and hydro power electricity (64% nuclear and 36% hydro). The solar energy is represented with a low voltage, 3 kWp slanted-roof installation, multi-Si panel dataset, whose climate footprint is 0,0979 kg CO₂-eq per kWh. The nuclear and hydro powered electricity is represented with the ecoinvent datasets "Electricity, high voltage {SE}| electricity production, nuclear, boiling water reactor | Cut-off, U and "Electricity, high voltage {SE}| electricity production, hydro, reservoir, non-alpine region | Cut-off, U", adding 7% transmission losses and impact from transition network for medium voltage. The climate footprint of the certified electricity mix from nuclear is 0,00752 kg CO₂-eq per kWh and from hyrdo 0,0512 kg CO₂-eq per kWh.

Hellberg also burns wood pellets for heat, using 9,82 kWh per produced m². The wood pellet dataset used has been adapted to represent the stated heating value of 4,8 kWh/kg pellets.

Shared site-level inputs and outputs reported in annual amounts (e.g. electricity use) are allocated per 1 m² based on the total annual quantity produced (m²).

(A4) The finished products with packaging are loaded onto a truck and transported 417 km to an end user in Stockholm, Sweden, which is used as the reference customer based on the highest order value.

The transport is modelled using the ecoinvent dataset “Transport, freight, lorry 16–32 metric ton, EURO6 {RER} | transport, freight, lorry 16–32 metric ton, EURO6 | Cut-off, U”.

(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.

(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 the ecoinvent 3.11 dataset “Transport, freight, lorry 16-32 metric ton, EURO5 {RER} | transport, freight, lorry 16-32 metric ton, EURO5 | Cut-off, U”.

For waste treatment, the end-of-life modules are modelled using a Swedish scenario since most customers are located here. In EN 17213 annex B, section B.3 End-of-life (EoL), different end-of-life scenarios are specified for waste treatment of window and door types.

The scenario in Figure B.1 Metal windows and doorsets in annex B in EN17213 has been used for recycling rates and share to incineration and landfill for the product. The main materials in the doors are categorized as steel, plastic and mineral materials. The steel has a recycle rate of 95% and the remaining 5% is landfilled. For plastic, 95% is incinerated and the remaining 5% landfilled. The mineral material is mostly stone wool insulation which is not specified in Figure B.1. According to recycling rates (R2) used in the Circular footprint formula of PEF, as found in Annex C, stone wool has 0% R2 rates and is thus not considered to be recycled. Furthermore, the stone wool insulation has high-temperature resistance and non-combustible characteristics. Therefore, the mineral material in the single and double door is assumed to be 100% landfilled as a conservative approach.

As the end-of-life scenario is a mix of recycling, incineration and landfill, a 100% scenario for each waste scenario will also be declared.

(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 Hellbergs Door Company AB at its production site in Mellerud, Sweden, over one year in 2025. Packaging data was based on 2024 data but is assumed to be representative of 2025 due to negligible expected differences. The EPD is representative of the production of 1 m² Hinged Steel Door – Single, manufactured in Mellerud, Sweden.

Primary data was collected directly from suppliers and the production site. EPD data was used for the input material Magnelis steel and complemented with representative secondary data from the ecoinvent database v3.11. Data quality was assessed according to EN 15804:2012+A2:2019, Annex E, E.1. The datasets used showed very good to good geographical representativeness, very good, good, and fair technical representativeness, and very good, good, and fair temporal representativeness. Datasets with fair technical representativeness were accepted where the technology was classified as “unknown” but the temporal representativeness was considered very good. No datasets assessed as poor or very poor were used in the study.

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

Stages																	
	Production			Construction process		Use							End of life				Resource recovery
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	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	GLO	GLO	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Share of primary data	51%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	-3% / +2%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
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
[EPD] Hot Dip Galvanised steel coils with Magnelis®_ArcelorMittal Europe – Flat Products_Europe_EPД-IES-0014422	Collected data, EPD	EPD Owner, Supplier	2025	Primary data	51%
Electricity	Collected data, Database	EPD Owner, Supplier, Ecoinvent v3.11	2025	Primary data	0,4%
Other processes	Collected data, Database	EPD Owner, Supplier, Ecoinvent v3.11	2025	Primary data Representative secondary data	0%
Total share of primary data, of GWP-GHG results for A1-A3					51%

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 m2 door									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	1,1E+02	3,1E+00	3,8E+00	1,5E-02	5,7E-01	1,5E+00	5,1E-02	-5,0E+01
GWP-fossil	kg CO ₂ eq.	1,1E+02	3,1E+00	1,4E-01	1,5E-02	5,7E-01	1,5E+00	5,1E-02	-4,9E+01
GWP-biogenic	kg CO ₂ eq.	-3,4E+00	6,5E-04	3,6E+00	1,6E-06	1,2E-04	8,0E-05	1,6E-05	-6,6E-03
GWP-luluc	kg CO ₂ eq.	2,3E-01	1,0E-03	2,1E-05	1,5E-06	1,9E-04	3,1E-04	1,3E-05	-3,1E-02
ODP	kg CFC 11 eq.	2,2E-05	6,7E-08	1,5E-09	2,2E-10	1,2E-08	2,1E-09	1,7E-09	-2,1E-07
AP	mol H ⁺ eq.	3,6E-01	6,6E-03	4,8E-04	1,3E-04	1,8E-03	1,3E-03	3,6E-04	-1,7E-01
EP-freshwater	kg P eq.	9,9E-04	2,3E-05	7,4E-07	5,2E-08	4,2E-06	7,7E-07	3,2E-07	-2,4E-03
EP-marine	kg N eq.	7,5E-02	1,5E-03	2,1E-04	6,1E-05	6,1E-04	5,9E-04	1,5E-04	-3,7E-02
EP-terrestrial	mol N eq.	8,7E-01	1,7E-02	2,3E-03	6,7E-04	6,7E-03	6,4E-03	1,7E-03	-4,4E-01
POCP	kg NMVOC eq.	2,8E-01	1,0E-02	6,8E-04	2,0E-04	2,8E-03	1,8E-03	6,0E-04	-1,5E-01
ADP-minerals & metals*	kg Sb eq.	1,4E-03	1,1E-05	2,1E-07	5,3E-09	1,9E-06	1,4E-07	6,2E-08	1,8E-05
ADP-fossil*	MJ	1,2E+03	4,3E+01	9,9E-01	1,9E-01	8,1E+00	2,0E+00	1,3E+00	-5,5E+02
WDP*	m ³	3,3E+01	1,7E-01	6,4E-03	4,1E-04	3,1E-02	1,4E-02	1,3E-02	-3,7E+00
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 of these results are high or as there is limited experience with the indicator.*

Additional mandatory and voluntary impact category indicators

Results per 1 m2 door									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG_1	kg CO2 eq.	1,1E+02	3,1E+00	1,4E-01	1,5E-02	5,7E-01	1,5E+00	5,1E-02	-5,0E+01
PM	disease inc.	1,4E-05	2,3E-07	8,6E-09	3,8E-09	4,5E-08	2,8E-08	9,0E-09	-3,7E-06
IR_2	kBq U-235 eq	8,3E+00	1,9E-02	4,6E-04	3,2E-05	3,5E-03	1,3E-02	4,3E-04	-1,3E+00
ETP – FW*	CTUe	1,1E+03	5,8E+00	4,0E-01	1,0E-02	1,1E+00	3,1E+00	7,2E-02	-1,3E+02
HTP – C*	CTUh	1,9E-07	5,1E-10	4,9E-11	1,5E-12	9,6E-11	9,2E-11	6,9E-12	-7,2E-08
HTP – NC*	CTUh	1,7E-06	2,7E-08	3,1E-09	2,4E-11	5,0E-09	3,5E-09	1,8E-10	-8,6E-08
Land use, SQP*	Pt	1,2E+03	2,6E+01	4,8E-01	1,3E-02	4,8E+00	2,3E-01	2,4E+00	-2,3E+02
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.*

¹ 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.

² This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Resource use indicators

Results 1 m2 door									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	1,7E+02	7,2E-01	1,9E-02	1,2E-03	1,3E-01	2,5E-01	2,2E-02	-5,5E+01
PERM	MJ	4,3E+01	0,0E+00	-4,3E+01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
PERT	MJ	2,1E+02	7,2E-01	-4,3E+01	1,2E-03	1,3E-01	2,5E-01	2,2E-02	-5,5E+01
PENRE	MJ	1,2E+03	4,6E+01	1,1E+00	2,0E-01	8,6E+00	2,1E+00	1,4E+00	-5,8E+02
PENRM	MJ	2,1E+01	0,0E+00	-1,2E+00	0,0E+00	0,0E+00	-2,0E+01	0,0E+00	0,0E+00
PENRT	MJ	1,3E+03	4,6E+01	-1,8E-01	2,0E-01	8,6E+00	-1,7E+01	1,4E+00	-5,8E+02
SM	kg	1,5E+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
NRSF	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
FW	m ³	5,4E-01	6,5E-03	6,0E-04	1,4E-05	1,2E-03	2,5E-03	1,3E-03	-1,9E-01
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.

The energy indicators are calculated using Option A in the PCR.

Waste indicators

Results per 1 m2 door									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	8,6E-03	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	2,1E+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	5,5E-03	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 m2 door									
Indicator	Unit	A1-A3	A4	A5	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
Material for recycling	kg	3,8E+00	0,0E+00	6,9E-01	0,0E+00	0,0E+00	2,8E+01	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
Exported energy, electricity	MJ	3,3E+00	0,0E+00	7,3E+00	0,0E+00	0,0E+00	4,5E+00	0,0E+00	0,0E+00
Exported energy, thermal	MJ	7,7E+00	0,0E+00	1,7E+01	0,0E+00	0,0E+00	1,0E+01	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 to the representative product for the different products included in this EPD can be seen in the table below.

Product	Difference relative to representative product
HD100 Single door	0%
HD200 Single door	-3%
HD300 Single door	+2%

The environmental impact indicators that vary by more than 10% between any of the included products are declared below. Variation is calculated as the maximum deviation between any of the included products, using absolute values.

Indicator	Variation between products (%)
Acidification	13%
Eutrophication, freshwater	16%
Water use	54%

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

Mandatory impact category indicators according to EN 15804, per 1 m² door

Indicator	Unit	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	3,7E+00	1,5E-02	5,6E-01	1,1E-01	1,6E-05	-6,2E+01
GWP-fossil	kg CO ₂ eq.	4,2E-02	1,5E-02	5,6E-01	1,1E-01	0,0E+00	-6,2E+01
GWP-biogenic	kg CO ₂ eq.	3,6E+00	1,6E-06	1,2E-04	8,0E-05	1,6E-05	-6,6E-03
GWP-luluc	kg CO ₂ eq.	1,2E-05	1,5E-06	1,9E-04	3,0E-04	0,0E+00	-2,3E-02
ODP	kg CFC 11 eq.	8,7E-10	2,2E-10	1,2E-08	1,6E-09	0,0E+00	-4,6E-07
AP	mol H ⁺ eq.	1,8E-04	1,3E-04	1,8E-03	9,6E-04	0,0E+00	-2,6E-01
EP-freshwater	kg P eq.	2,8E-07	5,2E-08	4,1E-06	4,6E-07	0,0E+00	-2,8E-03
EP-marine	kg N eq.	6,8E-05	6,1E-05	6,0E-04	4,4E-04	0,0E+00	-4,7E-02
EP-terrestrial	mol N eq.	7,5E-04	6,7E-04	6,6E-03	4,9E-03	0,0E+00	-6,0E-01
POCP	kg NMVOC eq.	2,7E-04	2,0E-04	2,7E-03	1,4E-03	0,0E+00	-2,0E-01
ADP-minerals&metals*	kg Sb eq.	1,2E-07	5,3E-09	1,9E-06	8,5E-08	0,0E+00	-4,0E-05
ADP-fossil*	MJ	5,9E-01	1,9E-01	8,0E+00	1,7E+00	0,0E+00	-6,9E+02
WDP*	m ³	2,1E-03	4,1E-04	3,1E-02	7,7E-03	0,0E+00	-6,1E+00
GWP-GHG ³	kg CO ₂ eq.	3,7E+00	1,5E-02	5,6E-01	1,1E-01	1,6E-05	-6,2E+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, 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 of these results are high or as there is limited experience with the indicator.*

³ 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 m² door

Indicator	Unit	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	3,8E+00	1,5E-02	9,1E-01	2,3E+01	5,3E-01	-3,6E+00
GWP-fossil	kg CO ₂ eq.	1,9E-01	1,5E-02	9,1E-01	2,3E+01	5,3E-01	-3,6E+00
GWP-biogenic	kg CO ₂ eq.	3,6E+00	1,6E-06	1,2E-04	8,0E-05	1,6E-05	-6,6E-03
GWP-luluc	kg CO ₂ eq.	2,5E-05	1,5E-06	3,0E-04	4,0E-04	2,6E-04	-2,5E-02
ODP	kg CFC 11 eq.	1,7E-09	2,2E-10	2,0E-08	8,4E-09	1,1E-08	-2,9E-08
AP	mol H ⁺ eq.	6,2E-04	1,3E-04	2,9E-03	4,2E-03	3,0E-03	-1,4E-02
EP-freshwater	kg P eq.	9,5E-07	5,2E-08	6,7E-06	5,5E-06	7,9E-06	-1,7E-04
EP-marine	kg N eq.	2,7E-04	6,1E-05	9,8E-04	1,7E-03	1,1E-03	-3,3E-03
EP-terrestrial	mol N eq.	2,9E-03	6,7E-04	1,1E-02	1,9E-02	1,2E-02	-4,1E-02
POCP	kg NMVOC eq.	8,5E-04	2,0E-04	4,4E-03	5,1E-03	4,2E-03	-1,3E-02
ADP-minerals&metals*	kg Sb eq.	2,5E-07	5,3E-09	3,1E-06	9,5E-07	1,5E-06	-2,4E-06
ADP-fossil*	MJ	1,2E+00	1,9E-01	1,3E+01	5,0E+00	8,7E+00	-7,7E+01
WDP*	m ³	8,5E-03	4,1E-04	5,0E-02	-4,8E-02	2,3E-01	-7,8E-01
GWP-GHG ⁴	kg CO ₂ eq.	3,8E+00	1,5E-02	9,1E-01	2,3E+01	5,3E-01	-3,6E+00
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 of these results are high or as there is limited experience 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% Landfill Scenario for modules A5, C1-C4 & D

Mandatory impact category indicators according to EN 15804, per 1 m² door

Indicator	Unit	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	3,7E+00	1,5E-02	5,6E-01	1,1E-01	2,5E-01	-3,3E+00
GWP-fossil	kg CO ₂ eq.	6,6E-02	1,5E-02	5,6E-01	1,1E-01	2,5E-01	-3,3E+00
GWP-biogenic	kg CO ₂ eq.	3,6E+00	1,6E-06	1,2E-04	8,0E-05	1,6E-05	-6,6E-03
GWP-luluc	kg CO ₂ eq.	1,8E-05	1,5E-06	1,9E-04	3,0E-04	1,2E-04	-4,0E-03
ODP	kg CFC 11 eq.	1,6E-09	2,2E-10	1,2E-08	1,6E-09	6,9E-09	-5,8E-09
AP	mol H ⁺ eq.	3,4E-04	1,3E-04	1,8E-03	9,6E-04	1,8E-03	-1,1E-02
EP-freshwater	kg P eq.	5,0E-07	5,2E-08	4,1E-06	4,6E-07	2,1E-06	-1,5E-04
EP-marine	kg N eq.	1,8E-04	6,1E-05	6,0E-04	4,4E-04	7,0E-04	-2,4E-03
EP-terrestrial	mol N eq.	1,5E-03	6,7E-04	6,6E-03	4,9E-03	7,7E-03	-2,9E-02
POCP	kg NMVOC eq.	5,8E-04	2,0E-04	2,7E-03	1,4E-03	2,7E-03	-1,1E-02
ADP-minerals&metals*	kg Sb eq.	1,7E-07	5,3E-09	1,9E-06	8,5E-08	3,3E-07	2,8E-07
ADP-fossil*	MJ	1,1E+00	1,9E-01	8,0E+00	1,7E+00	5,9E+00	-4,4E+01
WDP*	m ³	-9,7E-03	4,1E-04	3,1E-02	7,7E-03	2,0E-01	-3,8E-01
GWP-GHG ⁵	kg CO ₂ eq.	3,7E+00	1,5E-02	5,6E-01	1,1E-01	2,5E-01	-3,3E+00
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 of these results are high or as there is limited experience 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.

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
m³	Cubic Meter
NM VOC	Non-Methane Volatile Organic Compounds
Sb eq.	Antimony Equivalents
P eq.	Phosphorus Equivalents
N eq.	Nitrogen Equivalents
CFC-11 eq.	Chlorofluorocarbon-11 Equivalents
CO₂ eq.	Carbon Dioxide Equivalents
kg C	Kilograms of Carbon
kg CO₂ eq.	Kilograms of Carbon Dioxide Equivalent
ND	Not Declared

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VERSION HISTORY

Version 1: Original Version of the EPD, 2026-08-20

Version 2: Updated version, 2026-08-28 – The difference to the previous version is an editorial change on the content declaration where 12 material descriptions has been aggregated into 7 material categories due to confidentiality reasons.

