

Environmental Product Declaration



THE INTERNATIONAL EPD® SYSTEM



In accordance with ISO 14025:2006, ISO 21 930:2017 and EN 15804:2012+A2:2019/AC:2021 for:

MD 63 Class RC 3 Security door with extra fire protection.

In this EPD we have excluded, handle, closing mechanism and frame of the door.

EPD of MD 63, security class RC 3 results based on the representative product within the product group with sizes from 1,84 m² to 2,04m².

Maxidoor AB



Programme:

The International EPD® System, www.environdec.com

Programme operator:

EPD International AB

EPD registration number:

EPD-IES-0015156

Publication date:

2025-02-25

Valid until:

2030-02-25

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at 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:	info@environdec.com

Accountabilities for PCR, LCA and independent, third-party verification

Product Category Rules (PCR)

ISO Standard ISO 21930 and CEN standard EN 15804 serve as the core Product Category Rules Product Category Rules (PCR): PCR 2019:14 Construction products (EN 15804:A2) 1.3.4. Windows and doors (EN 17213:2020) C-PCR-007 version 2024-04-30. UN CPC code 42120 doors, windows and their frames and thresholds for doors of iron, steel or aluminium.

PCR review was conducted by: The Technical Committee of the International EPD® System. Chair: Claudia A. Peña 2020-09-17. Contact via info@environdec.com

Life Cycle Assessment (LCA)

LCA accountability: Freelance consultant Fredrik Broberg

Third-party verification:

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

☒ EPD verification by individual verifier:

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Approved by: EPD International AB

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 registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same 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 equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD:

Maxidoor AB
Norra Bangatan 46
718 31 Frövi
Sweden

Contact: Fredrik Jonsson 0706-789701

Description of the organisation:

MaxiDoor manufactures security doors and steel parts in Frövi, just outside Örebro. We develop comprehensive solutions for high security and work in close collaboration with our suppliers and clients. Everything from new construction and design to customized total solutions and service for customers all over Sweden.

Our business began as early as 1950, when the founder Göran Olofsson together with two companions started what would later become Frövi Fire Doors. In the 1980s, we changed our name to MaxiDoor, and during our 65 years in the industry, we have grown and developed into a strong and quality-conscious player on the market. We see ourselves as problem solvers in the security area and today have close to 70 employees. Among our customers are actors in the public sector, where we deliver standard products such as doors and partitions to e.g. schools and hospitals. We also produce custom-made security solutions for various authorities and private customers.

Since 2018, the Pomona group, a family-owned development and investment company, is the main owner of MaxiDoor.

The companys management system is certified according to:

ISO 9001, ISO 14001 and ISO 45001.

The products are registered in:

Sunda Hus, Byggvarubedomningen

Name and location of production site:

Maxidoor AB
Norra Bangatan 46
718 31 Frövi

Product information

Product name: MD 63

Product description:

MD 63 is a door that combines good security and fire protection.

Our burglar-proof steel door **MD 63**. This door model gives you substantial protection against both fire and burglary. Which protection class you should choose depends on your needs and where in the building the door is to be located, thus what the door is supposed to protect.

All doors in the MD Series are designed with 60-minute fire resistance as standard.

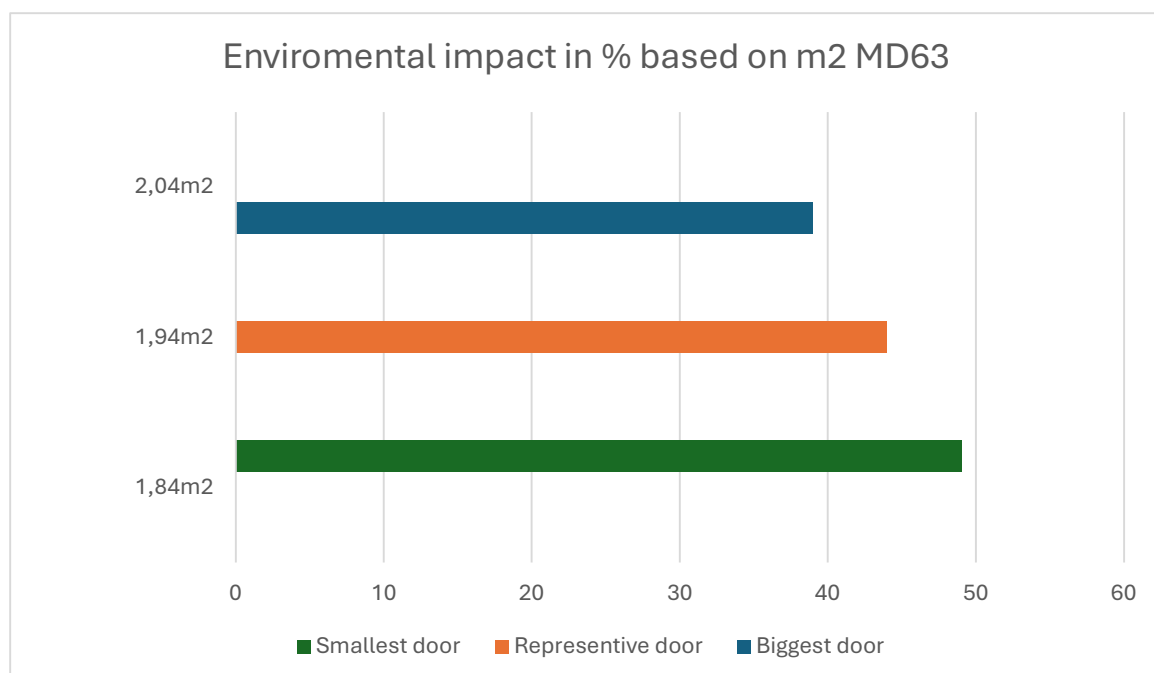
In this EPD we have excluded, closing mechanism and frame of the door.

Property	Value
Size	1m ²
Weight per m ²	MD 63(57,4Kg)

In order for a safety door to receive a classification, it is required that it undergo thorough tests by an accredited testing body.

MaxiDoor tests its doors at RISE Research Institutes of Sweden AB. It is a Swedish and state-owned research institute that collaborates with universities, business and society for innovation development and sustainable growth. This ensures that our doors meet the highest safety standards and have been thoroughly tested for tough conditions.

For MD 63 we have based the EPD on the most representative 1m² of the door leaf and that is 1,94m², based on production 2023. 1m² of 1,94m² represents 52% of the door leaf. The environmental impact per m² varies depending on the size of the door. Compared to our representative product of 1.94m²: A smaller door (down to 1,84 m²) has a higher environmental impact per m², up to 5% higher for the smallest size. A larger door (up to 2.04 m²) has a lower environmental impact per m², up to 5% lower for the largest size. This is because certain components and processes are relatively constant regardless of the size of the door, which leads to a more efficient use of resources for larger doors.



UN CPC code:

42120 doors, windows and their frames and thresholds for doors of iron, steel or aluminium

Geographical scope:

Sweden

LCA information

Declared unit:

1m²

Time representativeness:

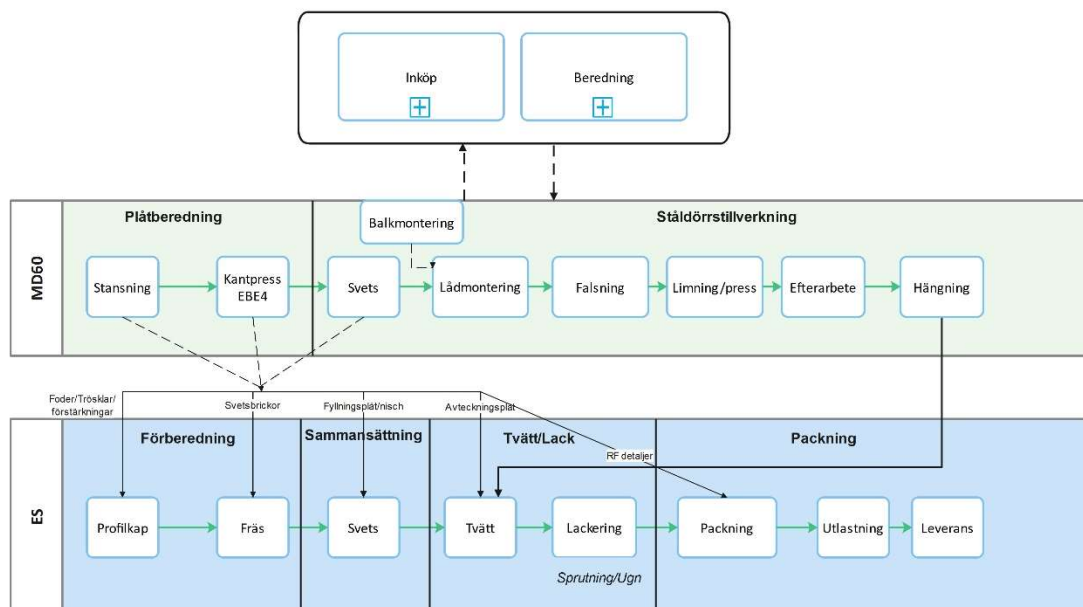
Data were collected by Maxidoor AB and are representative of 2023 manufacturing. All used datasets are currently valid

Database(s) and LCA software used:

Database used is LCA for Experts 10.6.29. Software used: MLC Professional

Additional Info:

Picture below shows the procedure in factory for production.



Biogenic C:

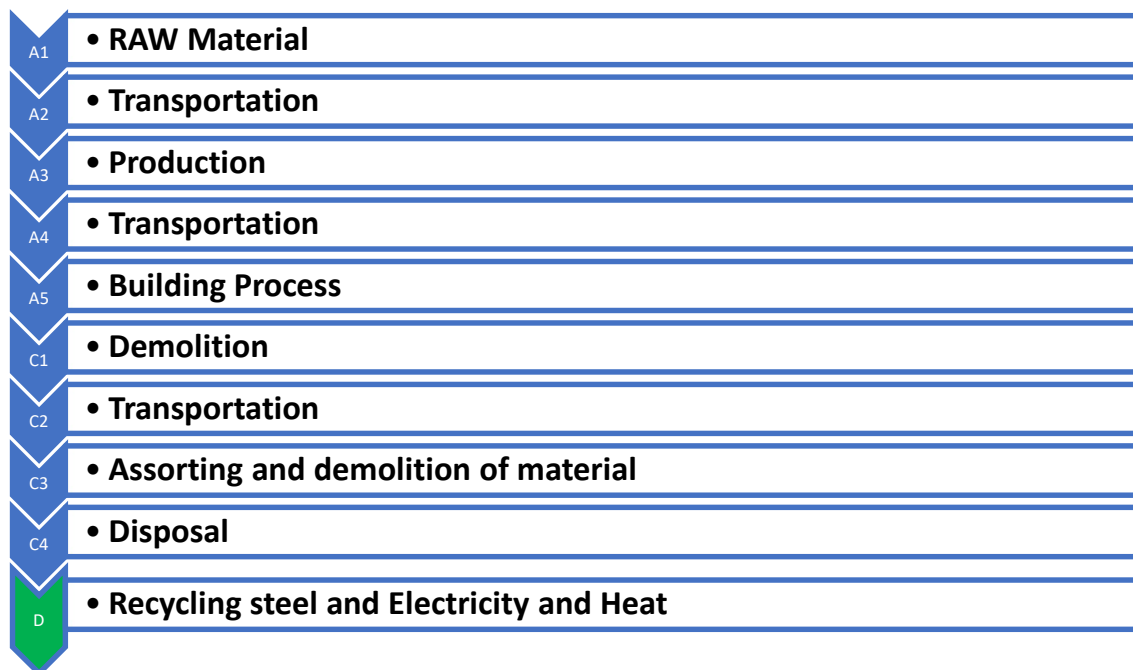
Values calculated manual adding the Biogenic C content in packing.(This does not replace the Biogenic C values in the enviromental performance indicators)

	A1-A3	A4	A5	C1-C2	C3	Summa A-C
GWP-Biogent, (Kg Co2 Eq)	-1,90	0,0143	1,94	0,013	0,0001	0,069

Description of system boundaries:

Type of EPD: cradle-to-gate with modules C1–C4, module D and optional modules A4-A5.

System diagram:



Emissions:

The factors used for this LCA are EN 15804 reference based on EF 3.1

More information

Website:

www.maxidoor.se

Allocation:

Annual consumption of utilities (energy and non-energy resources), generation of waste and emissions – is allocated to the product in Kg/m2 (i.e. mass allocation).

We have allocated the constituent materials to these specific product so that they do not contain the environmental impact of other products.

In case of recycling of generated waste in production, impacts are borne by the product.

Polluter pays principle is applied for incoming raw materials of recycled origin, where the product carries the processes required to produce the raw materials from the recycled material, but not the upstream production of the virgin material.

Cut-Off criteria:

The cut-off criteria are in accordance with the EN 15804 standard, Input and output flows in a unit process were considered i.e., taking into account the value of all flows in the unit process and the corresponding LCI where data was available. Data gaps were filled by conservative assumptions with average or generic data. Any assumptions in such case were documented. The use of cut-off criterion on mass inputs and primary energy at the unit process level (1%) and at the information module level (5%).

Type of EPD: Representative

Additional information:

The products does not contain any of the substances listed on the "Candidate List of Substances of Very High Concern (SVHC) for authorisation"
(http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp).

Infrastructure and capital goods are not included in upstream, core and downstream processes with the exception of electricity. For electricity, infrastructure have been included.

List of assumptions:

Assumption A4, A5, C1, C2, C3, C4 and D.

C1 to knock down 1/m² door, 2 min. C2 distance to waste treatment plant, is set to be 100 km.

C3 assumptions the collected goods is mixed with construction waste and sorted, here the waste is incinerated. C4 landfill.

D Recycling and Net gains and burdens of replacing electricity from the Swedish power grid and Swedish district heating.

Material	Recycling Rate	Incineration rate	Landfill rate
Galvanized steel	80%	0	5%
Plastic and Wood	0	95%	5%
Mineral wool	0	0	100%

A4 Transportation:

Trip, using a Lorry Euro 5 (34-40 ton) 27ton payload, distance 800Km, loading 85%, 57,4Kg/m², Diesel consumption 0,009 liter/m², full return.

Information A4 transport	Unit (per declared unit)
Diesel 0,0009 liter /m ² /100Km Truck, Euro 3, 28 - 32t gross weight / 22t payload capacity	
Distance 600	km
30	%

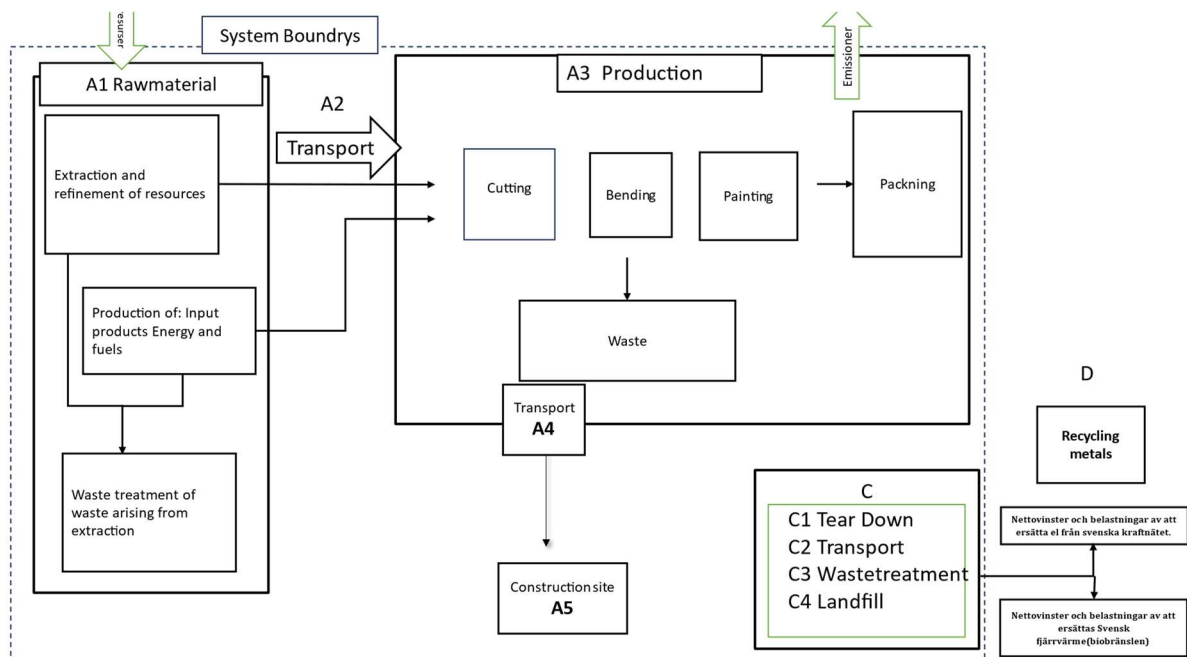
57,4	kg/m ²
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Information C2 transport	Unit (per declared unit)
Diesel 0,0009 liter /m ² /100Km Truck, Euro 5, 28 - 32t gross weight / 22t payload capacity	
Distance 100	km
85	%
57,4	kg/m ²

Electricity dataset in A:3
 The electricity is based on Swedish Nuclear mix – 5,71gr- CO2eq/kwh.

Modules declared, geographical scope, share of specific 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	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	SE	SE	SE	SE	SE								SE	SE	SE	SE	SE
Specific data used	4,6%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	10%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%					-	-	-	-	-	-	-	-	-	-	-	-



Content information MD63

In this EPD we have excluded, handle, closing mechanism and frame of the door.

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Galvanized Steel	35,5	0	0
Mineral Wool	12,2	0	0
Rivet	0,12	0	0
Glue	4	0	0
Powder Coating	1,04	0	0
Fire-swelling Cuning	0,41	0	0
Siliconlist	0,03	0	0
TOTAL	53,3	0	0
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
Wood	3,9	5,2	1,95
Plastic Film	0,27	0,4	0
TOTAL	4,01	5,87	1,95

Disclaimer:

The results obtained from modules A1-A3 (A1-A5 for services) of the life cycle analysis (LCA) underlying this EPD are provided for information purposes only. Users are advised not to use these results without considering the results of module C. Any use of the results from modules A1-A3 (A1-A5 for services) without considering the results of module C is at the user's own risk, and the authors and/or performers of this LCA disclaims all liability for such use.

Resultat per deklarerad enhet

BIOGENT KOLINNEHÅLL	Enhet	Kvantitet
Biogent kolinnehåll i produkten	Kg C	0
Biogent kolinnehåll i packningen	Kg C	1,95

Results of the environmental performance indicators

Mandatory impact category indicators according to EN 15804+A2

MD 63

1m² of the MD 63 door leaf that is 1,94 m² and class RC 3

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-Total	kg CO ₂ eq.	1,68E+02	5,61E-01	1,13E-01	3,52E-02	5,31E-01	5,41E-01	9,69E+00	-1,11E+02
GWP-fossil	kg CO ₂ eq.	1,67E+02	5,66E-01	1,42E-01	3,55E-02	5,35E-01	5,40E-01	9,53E-01	-1,12E+02
GWP-biogenic	kg CO ₂ eq.	-1,90E+00	1,43E-02	1,94E+00	8,46E-04	1,35E-02	9,88E-05	3,30E-03	4,52E-01
GWP-luluc	kg CO ₂ eq.	5,99E-02	9,34E-03	9,67E-03	5,73E-04	8,82E-03	3,23E-04	1,02E-03	-1,67E-02
ODP	kg CFC 11 eq.	1,81E-10	8,19E-14	1,16E-12	5,02E-15	7,74E-14	1,65E-11	-4,90E-12	1,07E-10
AP	mol H ⁺ eq.	5,04E-01	3,51E-03	4,88E-04	1,76E-04	3,32E-03	1,64E-03	2,43E-03	-2,80E-01
EP-freshwater	kg P eq.	1,28E-04	2,37E-06	3,26E-06	1,45E-07	2,24E-06	1,20E-05	2,28E-04	-3,75E-05
EP-marine	kg N eq.	9,93E-02	1,73E-03	1,24E-04	8,30E-05	1,63E-03	5,91E-04	2,45E-03	-4,95E-02
EP-terrestrial	mol N eq.	1,40E+00	1,91E-02	1,44E-03	9,20E-04	1,81E-02	4,97E-03	9,42E-03	-4,79E-01
POCP	kg NMVOC eq.	3,21E-01	3,42E-03	4,37E-04	2,35E-04	3,23E-03	1,26E-03	5,79E-03	-1,98E-01
ADP-minerals&metals*	kg Sb eq.	1,22E-03	4,84E-08	7,79E-08	2,97E-09	4,57E-08	4,34E-07	-2,57E-08	-4,38E-04
ADP-fossil*	MJ	4,01E+03	7,32E+00	1,11E+01	4,49E-01	6,92E+00	5,40E+01	2,72E+00	-1,22E+03
WDP	m ³	9,65E+00	8,61E-03	4,59E-02	5,28E-04	8,13E-03	5,58E-01	-3,28E-02	-4,88E+00

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

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.

*Disclaimer; The use of the results of modules A1-A3 (A1-A5 for services) without considering the results of module C, is not recommended.

Additional mandatory and voluntary impact category indicators

Potential environmental impact GWP-GHG – additional mandatory and voluntary indicators, per declared unit 1/m²

Results per declared unit

Indicator	Unit	Tot.A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG[1]	kg CO ₂ eq.	1,67E+02	5,64E-01	1,43E-01	3,53E-02	5,33E-01	5,38E-01	7,76E+00	-1,11E+02

Resource use indicators MD 63

1m² of the MD 63 door leaf that is 1,94 m² and class RC 3

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	2,77E+02	6,26E-01	5,61E+00	3,84E-02	5,92E-01	7,44E+01	-3,12E+00	1,46E+01
PERM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,77E+02	6,26E-01	5,61E+00	3,84E-02	5,92E-01	7,44E+01	-3,12E+00	1,46E+01
PENRE	MJ	3,77E+03	7,27E+00	1,10E+01	4,46E-01	6,87E+00	5,36E+01	2,70E+00	-1,21E+03
PENRM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	3,77E+03	7,27E+00	1,10E+01	4,46E-01	6,87E+00	5,36E+01	2,70E+00	-1,21E+03
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	9,73E+00	6,98E-04	7,32E-03	4,28E-05	6,59E-04	9,88E-02	-1,83E-03	-7,89E+00

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

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.

Waste indicators per declared unit 1m² MD 63

1m² of the MD 63 door leaf that is 1,94 m² and class RC 3

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	1,53E-05	2,78E-10	8,13E-09	1,71E-11	2,63E-10	1,18E-07	-6,51E-09	-5,62E-06
Non-hazardous waste disposed	kg	3,86E+00	1,19E-03	6,42E-03	7,28E-05	1,12E-03	7,85E-02	8,76E+00	-9,09E+00
Radioactive waste disposed	kg	6,11E-01	1,32E-05	1,24E-03	8,12E-07	1,25E-05	1,84E-02	-7,80E-04	-6,22E-04

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.

Output flow indicators per declared unit 1m² MD 63

1m² of the MD 63 door leaf that is 1,94 m² and class RC 3

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	1,52E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,98E+01	0,00E+00	4,50E+01
Materials for energy recovery	kg	0,00E+00	0,00E+00	3,50E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	1,88E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,88E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	1,43E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,43E+01

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

References

General Programme Instructions of the International EPD® System. Version 4.

PCR 2019:14 Construction products (EN 15804:A2) (1.3.4) 2024-03-01

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GENERAL PROGRAMME INSTRUCTIONS FOR THE INTERNATIONAL EPD® SYSTEM
VERSION 4.0

EN 15804:2012+A2:2019/AC:2021 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

EPD® of Electricity from Vattenfall's Nuclear Power Plants
EPD® Registration number: S-P 00923

Polyester Powder Coating EPD-VDL-20230163-IAG1-EN

Livscykelanalys Fredrik Broberg Maxidoor AB 2025-02-20

