ENVIRONMENTAL PRODUCT DECLARATION

as per /ISO 14025/ and /EN 15804/

Owner of the Declaration	**ASSA ABLOY Security Solutions Metal Industries (LLC)**
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-ASA-20190125-IBA1-EN
Issue date	06.08.2019
Valid to	05.08.2024

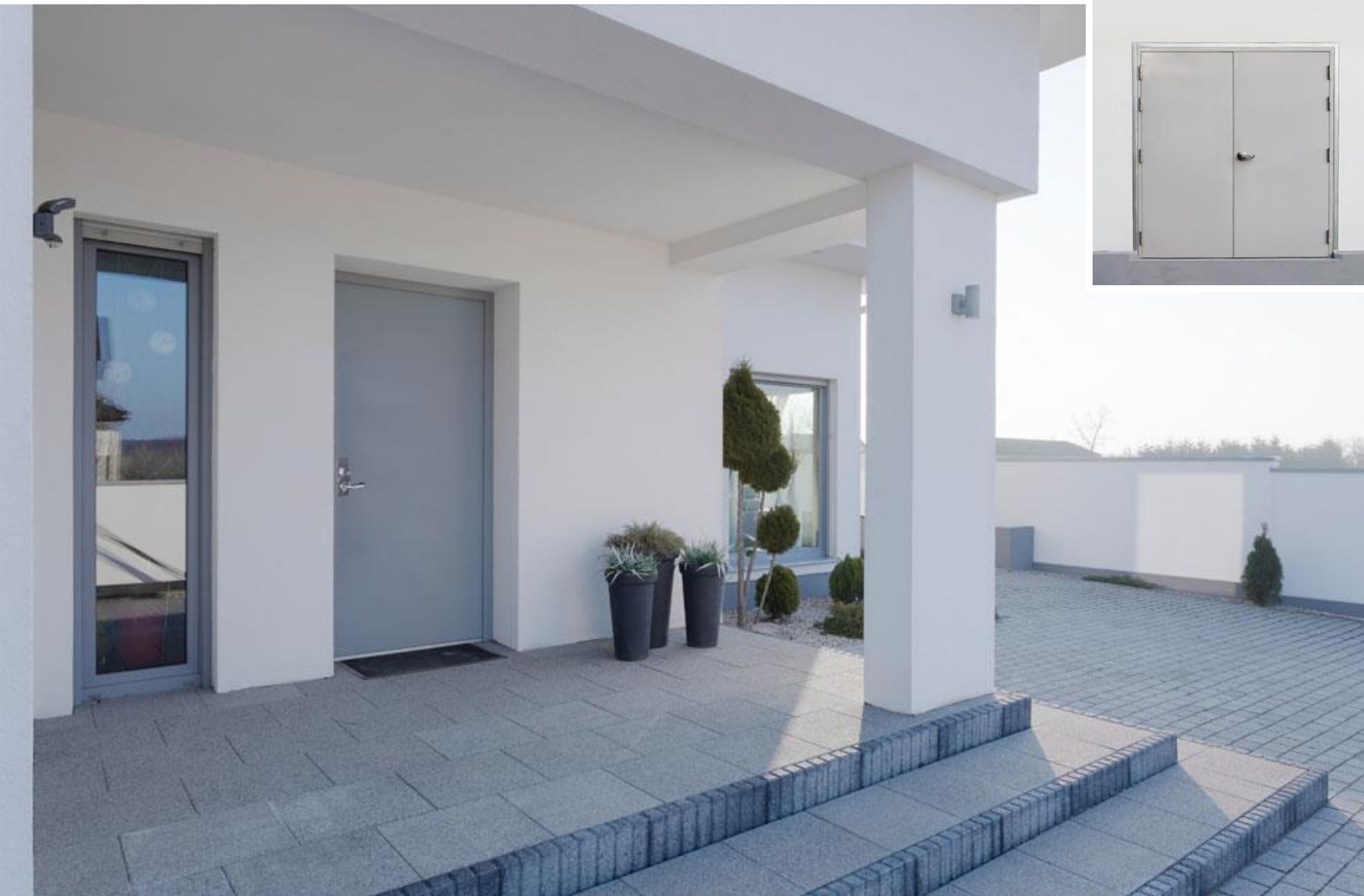
ASSA ABLOY Mineralwool Core Steel Door Set

ASSA ABLOY Opening Solutions

Middle East

Institut Bauen und Umwelt e.V.

www.ibu-epd.com / https://epd-online.com



ASSA ABLOY

1. General Information

ASSA ABLOY Schweiz AG

Programme holder
IBU - Institut Bauen und Umwelt e.V.
Panoramastr. 1
10178 Berlin
Germany

Declaration number
EPD-ASA-20190125-IBA1-EN

This declaration is based on the product category rules:
IBU: PCR Windows and doors Version 1.7 (01.2019)
(PCR tested and approved by the independent expert committee)

Issue date
06.08.2019

Valid to
05.08.2024

Hans Peters
(President of Institut Bauen und Umwelt e.V.)

Dr. Alexander Röder
(Managing Director of IBU)

ASSA ABLOY Mineralwool Core Steel Door

Owner of the declaration
ASSA ABLOY Security Solutions Metal Industries Factory (LLC)
Jebel Ali Industrial Area 1
Street 11B
P.O. Box: 37765
Dubai
United Arab Emirates (UAE)

Declared product / declared unit
The declaration represents 1 steel door set – Prometal Mineralwool Core Steel Door - consisting of the following items:
- Steel Frame
- Mineralwool core steel door leaf

Scope:
This declaration and its LCA study are relevant to the Prometal Mineralwool Core Steel Door manufactured in Prometal Metal Industries Factory (LLC) in Dubai, UAE. The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

Verification

The standard /EN 15804/ serves as the core PCR
Independent verification of the declaration and data according to /ISO 14025:2010/
☐ internally ☒ externally

Wolfram Trinius
(Independent verifier appointed by SVR)

2. Product

2.1 Product description / Product definition

Product name:
Prometal Mineralwool Core Steel Door

Product characteristic:
Prometal Mineralwool Core Steel Door consist of galvanized steel.
- Frame is 1.5 mm thick galvanized steel.
- Door Leaf is 1.2 mm thick galvenized steel.
- Infill of the leaf is Mineral wool 40-150 kg/m^3
- Polyester Powder paint finish

Complete door set is fire-rated for 30-180 minutes.

The standards that can be applied for Prometal Mineralwool Core Steel Door are:

- /BS 476 Part 22/
- /ANSI UL 10C/

2.2 Application

Prometal Mineralwool Core Steel Door consists of a whole range of fire-rated door sets offered in various finishes for internal and external use.

2.3 Technical Data

The table presents the technical properties for Prometal Mineralwool Core Steel Door.

Parameter	Value
Heat transfer coefficient of the entire door or gate system	0,74 W/(m^2K)
Available Finishes:	Polyester Powder Coated RAL colors
Available Sizes:	Single and double doors
Width:	1300 mm (SD) & 2900 mm (DD)
Height	2995mm

Insert Type:	Mineral wool 40-150 kg/m3

2.4 Delivery status
Prometal Mineralwool Core Steel Doors are delivered packed by 30 leafs and 12 frames per pallet.

2.5 Base materials / Ancillary materials
The average composition for Prometal Mineralwool Core Steel Door is as following:

Component	Percentage in mass (%)
Steel	92,83
Mineral wool	4,87
Plastics	2,29
Total	100,00

2.6 Manufacture
The manufacturing processes that occur in the factory for the Prometal Mineralwool Core Steel Door:

1) Shearing of steel sheets
2) Punching of hardware provisions on steel sheets
3) Bending of steel sheet to form frame profiles and door leaf
4) Welding of components to the frame and door leaf
5) Assembly of door leaf and frame by welding
5) Grinding & cleaning of the door set
6) Painting of frame and leaf
6) Packing of frame and leaf

The factory of Prometal Metal Industries Factory (LLC) has a Quality Management system certified according to ~~e~~ /ISO 9001:2015.
Location of suppliers:
Steel: India
Infill core: United Arab Emirates (UAE)
Plastic: United Arab Emirates (UAE)
Paint: United Arab Emirates (UAE)

2.7 Environment and health during manufacturing
ASSA ABLOY is committed to producing and distributing door opening solutions with minimal environmental impact, where health & safety is the primary focus for all employees and associates.
• Environmental operations, GHG, energy, water, waste, VOC, surface treatment and H&S are routinely monitored. Inspections, audits, and reviews are conducted periodically to ensure that applicable standards are met and Environment Management program /ISO 14001:2015 effectiveness is evaluated.
• Code of Conduct covers human rights, labor practices and decent work. Management of ASSA ABLOY is aware of their environmental roles and responsibilities, providing appropriate training, supporting accountability and recognizing outstanding performance.
• Any waste metals during machining are separated and recycled. The waste from the water-based painting process is delivered to waste treatment plant.

2.8 Product processing/Installation
Prometal Mineralwool Core Steel Doors are distributed through and installed by trained installation technicians, such as building technicians adhering to local/national standards and requirements. The product can also be installed directly from the end-user (professional or personal).

2.9 Packaging
Prometal Mineralwool Core Steel Doors are packed by 30 leafs and 12 frames per pallet with polyethylene film (LDPE/PE-LD). Each corner is protected by hard cardboard carton. The packaging is fully recyclable.

Material	Value (%)
Plastic	100,00
Total	**100,00**

2.10 Condition of use
Annual inspection is recommended in order to guarantee the correct functionality of the product. The inspection includes: checking, fixing screws to ensure they are properly tight, correct adjustments (closing speeds, force), compliance with local legal inspection standards and greasing all the moving parts.

The Prometal Mineralwool Core Steel Door has an internal and external usage. In order to maintain it, cleaning with a soft cloth is recommended.

2.11 Environment and health during use
There is no harmful emissive potential. No damage to health or impairment is expected under normal use corresponding to the intended use of the product.

2.12 Reference service life
The reference service life of 10 years is based on a normal working condition of up to 500 000 cycles (according to /ISO 15686-1, -2, -7 and -8:2004/).

2.13 Extraordinary effects

Fire
Fire resistant up to 180 min.

Fire protection

Name	Value
Building material class	A1
Burning droplets	-
Smoke gas development	-

Water
Contains no substances that have any impact on water in case of flood.

Mechanical destruction
No danger to the environment can be anticipated during mechanical destruction.

2.14 Re-use stage
It is possible to re-use the product during the reference service life and it be moved from one location to another. The majority, by weight, of components is steel which can be recycled. The plastic components can be used for energy recovery within a waste incineration process.

2.15 Disposal
The majority of components is steel which can be recycled (92,8%). ~~100 % of the materials used are recyclable~~. The plastic components can be used for energy recovery in an incineration plant. Furthermore mineral wool is recyclable, but some fractions which cannot be recycled are sent to an inert landfill.

/EWC/ 17 04 05 iron and steel
/EWC/ 17 02 03 plastic
/EWC/ 15 01 02 plastic packaging
/EWC/ 17 06 04 insulation materials other than those mentioned in 17 06 01 and 17 06 03 (non hazardous)

2.16 Further information/

ASSA ABLOY Security Solutions Metal Industries (LLC)
Jebel Ali Industrial Area 1 Street 11B
P.O. Box: 37765
Dubai
United Arab Emirates

3. LCA: Calculation rules

3.1 Declared Unit

The declaration represents 1 steel door set – Prometal Mineralwool Core Steel Door - consisting of the following items:
- Steel Frame
- Mineralwool core steel door leaf.

Declared unit

Name	Value	Unit
Mass (without packaging)	94,383	kg
Mass packaging (plastic)	0,090	kg
Conversion factor to 1 kg	0,010595128	-
Declared unit for hardware systems	1	Piece

3.2 System boundary

Type of the EPD: cradle to gate - with options
The following life cycle stages were considered:

Production stage:
- A1 – Raw material extraction and processing
- A2 – Transport to the manufacturer and
- A3 – Manufacturing

Construction stage:
- A4 – Transport from the gate to the site
- A5 – Packaging waste processing

Use stage related to the operation of the building includes:
- B6 – Operational energy use (not included as no power is needed)

End-of-life stage (EoL):
- C2 – Transport to waste processing,
- C3 – Waste processing for recycling and
- C4 – Disposal (landfill, waste for incineration).

This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues.

Module D:
- Declaration of all benefits and loads.

3.3 Estimates and assumptions

Transportation:
Data on mode of transport and distances, as reported by suppliers were used for those materials and parts contributing more than 2 % of total product mass. In case of unknown transport distances for parts and materials, contributing less than 2 % to the total product mass, transport by road over an average distance of 500 km was assumed.

Use stage:
For the use stage, it is assumed that the Prometal Mineralwool Core Steel Door is used within EU-27.

EoL:
In the End-of-Life stage, for all the materials which can be recycled, a recycling scenario with 100 % collection rate was assumed. The country where EoL takes place is EU-27. Furthermore, a transport distance by truck of 100 km has been assumed in the model.

3.4 Cut-off criteria

In the assessment, all available data from the production process are considered, i.e. all raw materials used, auxiliary materials (e.g. lubricants), and electric power consumption - including material and energy flows contributing less than 1 % of mass or energy (if available). In case any specific flow contributing less than 1 % in mass or energy is not available, worst case assumption proxies are selected to represent the respective environmental impacts.

Impacts relating to the production of machines and facilities required during production are out of the scope of this assessment.

3.5 Background data

For life cycle modeling of the considered products, the GaBi 8.7.0.18 Software System for Life Cycle Engineering, developed by thinkstep AG, was used /GaBi 8 2019/. The GaBi-database contains consistent and documented datasets which are documented in the online GaBi-documentation /GaBi database SP25:2016/.
To ensure comparability of results in the LCA, the basic data of GaBi database were used for energy, transportation and auxiliary materials.

3.6 Data quality

The requirements for data quality and background data correspond to the specifications of the /IBU PCR Part A/.
thinkstep performed a variety of tests and checks during the entire project to ensure high quality of the completed project. This obviously includes an extensive review of project-specific LCA models as well as the background data used.
The technological background of the collected data reflects the physical reality of the declared products. The datasets are complete and conform to the system boundaries and the criteria for the exclusion of inputs and outputs.
All relevant background datasets are taken from the /GaBi database SP25:2016/.

3.7 Period under review

The period under review is 2017/18 (12-month average).

3.8 Allocation

Regarding incineration, the software model for the waste incineration plant (WIP) is adapted according to the material composition and heating value of the combusted material. In this EPD, the following specific life cycle inventories for the WIP are considered for:

Waste incineration of plastic

Regarding the recycling material of metals, the metal parts in the EoL are declared as end-of-waste status. Thus, these materials are considered in module D. Specific information on allocation within the background data is given in the GaBi dataset documentation.

3.9 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to /EN 15804/ and the building context, respectively the product-specific characteristics of performance, are taken into account. /GaBi database SP25:2016/ serves as background database for the calculation.

4. LCA: Scenarios and additional technical information

The following technical scenario information is required for the declared modules or can be used for developing specific scenarios in the context of a building assessment if modules are not declared (MND).

Transport to the building site (A4)

Name	Value	Unit
Liters of fuel	39,4	l/100km
Transport distance truck	287	km
Capacity utilization (including empty runs)	85	%
Transport distance ship (primary target market is EU 27)	7325	km
Capacity utilization	48	%

Installation into the building (A5)

Name	Value	Unit
Output substances following waste treatment on site (plastic packaging)	0,090	kg

Reference service life

Name	Value	Unit
Reference service life (according to ISO 15686-1, -2, -7 and -8)	10	a

End of life (C1-C4)

Name	Value	Unit
Collected separately (Plastics, Steel, Paper)	94,383	kg
Incineration of plastic parts	2,166	kg
Recycling of steel	87,617	kg
Transport distance	100	km

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Name	Value	Unit
Collected separately waste type (including packaging)	94,473	kg
Recycling plastic	2,388	%
Recycling steel	92,743	%
Incineration of mineral wool	4,869	%
Incineration of packaging (plastic) (from A5)	0,095	%

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5. LCA: Results

Results shown below were calculated using CML 2000 – Apr. 2013 Methodology.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	X	MND	MND	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: 1 steel door set – Mineralwool Core Steel Door

Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D
GWP	Global warming potential	[kg CO_2-Eq.]	2,23E+02	1,94E+01	6,74E+00	0,00E+00	4,49E-01	0,00E+00	5,41E+00	-1,48E+02
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	3,25E-09	9,30E-11	3,05E-11	0,00E+00	2,15E-12	0,00E+00	1,63E-11	-7,69E-10
AP	Acidification potential of land and water	[kg SO_2-Eq.]	9,49E-01	8,89E-02	1,54E-03	0,00E+00	2,05E-03	0,00E+00	1,38E-03	-5,58E-01
EP	Eutrophication potential	[kg $(PO_4)^{3-}$-Eq.]	8,73E-02	2,03E-02	2,64E-04	0,00E+00	4,69E-04	0,00E+00	1,04E-04	-4,63E-02
POCP	Formation potential of tropospheric ozone photochemical oxidants	[kg ethene-Eq.]	1,18E-01	-2,87E-02	1,08E-04	0,00E+00	-6,63E-04	0,00E+00	6,69E-05	-8,28E-02
ADPE	Abiotic depletion potential for non-fossil resources	[kg Sb-Eq.]	6,60E-03	7,32E-07	1,32E-07	0,00E+00	1,69E-08	0,00E+00	3,57E-07	-3,30E-06
ADPF	Abiotic depletion potential for fossil resources	[MJ]	2,74E+03	2,68E+02	1,92E+00	0,00E+00	6,19E+00	0,00E+00	2,29E+00	-1,41E+03

RESULTS OF THE LCA - RESOURCE USE: 1 steel door set – Mineralwool Core Steel Door

Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	2,13E+02	-	-	-	-	-	-	-
PERM	Renewable primary energy resources as material utilization	[MJ]	0,00E+00	-	-	-	-	-	-	-
PERT	Total use of renewable primary energy resources	[MJ]	2,13E+02	1,06E+01	1,77E-01	0,00E+00	2,44E-01	0,00E+00	1,68E-01	1,80E+01
PENRE	Non-renewable primary energy as energy carrier	[MJ]	2,82E+03	-	-	-	-	-	-	-
PENRM	Non-renewable primary energy as material utilization	[MJ]	0,00E+00	-	-	-	-	-	-	-
PENRT	Total use of non-renewable primary energy resources	[MJ]	2,82E+03	2,69E+02	2,24E+00	0,00E+00	6,21E+00	0,00E+00	2,54E+00	-1,34E+03
SM	Use of secondary material	[kg]	1,09E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	Use of renewable secondary fuels	[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	Use of non-renewable secondary fuels	[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	Use of net fresh water	[m^3]	9,82E-01	7,46E-03	1,95E-02	0,00E+00	1,72E-04	0,00E+00	1,32E-02	-9,46E-02

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: 1 steel door set – Mineralwool Core Steel Door

Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D
HWD	Hazardous waste disposed	[kg]	4,92E-02	6,13E-04	1,54E-04	0,00E+00	1,42E-05	0,00E+00	1,78E-04	9,11E-02
NHWD	Non-hazardous waste disposed	[kg]	2,82E+00	3,38E-02	1,85E-01	0,00E+00	7,81E-04	0,00E+00	5,04E-01	-2,05E+00
RWD	Radioactive waste disposed	[kg]	2,96E-02	3,52E-04	1,29E-04	0,00E+00	8,14E-06	0,00E+00	1,01E-04	2,69E-02
CRU	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
MFR	Materials for recycling	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,22E+01	0,00E+00	0,00E+00
MER	Materials for energy recovery	[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
EEE	Exported electrical energy	[MJ]	0,00E+00	0,00E+00	8,67E+00	0,00E+00	0,00E+00	0,00E+00	1,04E+01	0,00E+00
EET	Exported thermal energy	[MJ]	0,00E+00	0,00E+00	2,44E+01	0,00E+00	0,00E+00	0,00E+00	2,84E+01	0,00E+00

6. LCA: Interpretation

This chapter contains an interpretation of the Life Cycle Impact Assessment categories. Stated percentages in the whole interpretation are related to the overall life cycle, excluding credits (module D).

The production stage (modules A1-A3) contributes between 80,51°% and 99,98°% to the overall results for all the environmental impact assessment categories hereby considered.

Within the production stage, the main contribution for all the impact categories is the production of steel mainly due to the energy consumption. Steel accounts with approx. 92,8 % to the overall mass of the product,

therefore, the impacts are in line with the mass composition of the product. The environmental impacts for the transport (A2) have a negligible impact within this stage.

In the end-of-life stage, there are loads and benefits (module D, negative values) considered. The benefits are considered beyond the system boundaries and are declared for the recycling potential of the metals and for the credits from the incineration process (energy substitution.

7. Requisite evidence

Not applicable in this EPD.

8. References

/BS 476 Part 22/
Fire resistance test for door assembly.

/EN 15804/
EN 15804:2012-04+A1 2013, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

/ANSI UL10C/
Positive pressure fire test of door assembly.

/GaBi 8 :2019/
Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, thinkstep AG, Echterdingen, 1992-2019

/GaBi database SP25:2016/
Documentation of GaBi Database for Life Cycle Engineering. Copyright, TM. Stuttgart, thinkstep AG, Echterdingen, 1992-2016. http://documentation.gabi-software.com/

IBU PCR Part A
Institut Bauen und Umwelt e.V., Berlin (pub.): Product Category Rules for Construction Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Background Report. March 2018
www.ibu-epd.de

IBU PCR Part B
IBU PCR Part B: PCR Guidance-Texts for Building-Related Products and Services. From the range of Environmental Product Declarations of Institute Construction and Environment e.V. (IBU). Part B: Requirements on the EPD for
Windows and doors Version 1.7 (01.2019) www.ibu-epd.com

/ISO 14025:2015/
DIN EN /ISO 14025:2011-10/, Environmental labels and declarations — Type III environmental declarations — Principles and procedures

/ISO 9001:2015/
Quality management systems - -- Requirements with guidance for us

/ISO 15686-1, -2, -7 and -8:2004/
Buildings and constructed assets. Service life planning. General principles and framework

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9. Annex

Results shown below were calculated using TRACI Methodology.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARYS
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement[1)]	Refurbishment[1)]	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse- Recovery- Recycling- potential
A1	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
X	X	X	X	X	MND	MND	MND	MND	MND	X	MND	MND	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: 1 steel door set – Mineralwool Core Steel Door

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C2	C3	C4	D
GWP	Global warming potential	[kg CO_2-Eq.]	2,23E+02	1,94E+01	6,74E+00	0,00E+00	4,49E-01	0,00E+00	5,41E+00	-1,48E+02
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	3,46E-09	9,90E-11	3,24E-11	0,00E+00	2,29E-12	0,00E+00	1,73E-11	-8,20E-10
AP	Acidification potential of land and water	[kg SO_2-Eq.]	9,71E-01	1,16E-01	1,87E-03	0,00E+00	2,68E-03	0,00E+00	1,62E-03	-5,66E-01
EP	Eutrophication potential	[kg N-eq.]	7,98E-02	8,21E-03	1,06E-04	0,00E+00	1,90E-04	0,00E+00	4,92E-05	-3,39E-02
Smog	Ground-level smog formation potential	[kg O_3-eq.]	1,50E+01	2,39E+00	4,25E-02	0,00E+00	5,53E-02	0,00E+00	1,27E-02	-8,35E+00
Resources	Resources – resources fossil	[MJ]	1,32E+02	3,86E+01	2,24E-01	0,00E+00	8,91E-01	0,00E+00	2,36E-01	8,42E+00

RESULTS OF THE LCA - RESOURCE USE: 1 steel door set – Mineralwool Core Steel Door

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C2	C3	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	2,13E+02	-	-	-	-	-	-	-
PERM	Renewable primary energy resources as material utilization	[MJ]	0,00E+00	-	-	-	-	-	-	-
PERT	Total use of renewable primary energy resources	[MJ]	2,13E+02	1,06E+01	1,77E-01	0,00E+00	2,44E-01	0,00E+00	1,68E-01	1,80E+01
PENRE	Non-renewable primary energy as energy carrier	[MJ]	2,82E+03	-	-	-	-	-	-	-
PENRM	Non-renewable primary energy as material utilization	[MJ]	0,00E+00	-	-	-	-	-	-	-
PENRT	Total use of non-renewable primary energy resources	[MJ]	2,82E+03	2,69E+02	2,24E+00	0,00E+00	6,21E+00	0,00E+00	3E+00	-1,34E+03
SM	Use of secondary material	[kg]	1,09E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	Use of renewable secondary fuels	[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	Use of non-renewable secondary fuels	[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	Use of net fresh water	[m^3]	9,82E-01	7,46E-03	1,95E-02	0,00E+00	1,72E-04	0,00E+00	1,32E-02	-9,46E-02

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: 1 steel door set – Mineralwool Core Steel Door

Parameter	Parameter	Unit	A1 - A3	A4	A5	B6	C2	C3	C4	D
HWD	Hazardous waste disposed	[kg]	4,92E-02	6,13E-04	1,54E-04	0,00E+00	1,42E-05	0,00E+00	1,78E-04	9,11E-02
NHWD	Non-hazardous waste disposed	[kg]	2,82E+00	3,38E-02	1,85E-01	0,00E+00	7,81E-04	0,00E+00	5,04E-01	-2,05E+00
RWD	Radioactive waste disposed	[kg]	2,96E-02	3,52E-04	1,29E-04	0,00E+00	8,14E-06	0,00E+00	1,01E-04	2,69E-02
CRU	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	-
MFR	Materials for recycling	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,22E+01	0,00E+00	-
MER	Materials for energy recovery	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-
EEE	Exported electrical energy	[MJ]	0,00E+00	0,00E+00	8,67E+00	0,00E+00	0,00E+00	0,00E+00	1,04E+01	-
EET	Exported thermal energy	[MJ]	0,00E+00	0,00E+00	2,44E+01	0,00E+00	0,00E+00	0,00E+00	2,84E+01	-

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