# Template for content and format of the project report For EPD creation for construction products

As per ISO 14025 and EN 15804+A2

Programme for EPD (Environmental Product Declarations)

Bau EPD GmbH



www.bau-epd.at

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# **Imprint**

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# **Tracking of versions**

Version	Comments	Date of changes
1.0	Template created by F. Gschösser and S. Richter based on current structure of PCR-B for EPD as per EN 15804+A2	2020-08-24
2.0	Adaptation of tables for modules C and D, small editorial changes	2021-08-27
3.0	Change of ECO Platform logo (formal)	2021-11-27
4.0	Add indication of LCA method in chapter «General», Institutions of verifiers are deleted (not necessary, individual persons are liable)	2022-04-20
5.0	Changes to general EPD information: LKBS signed with 2 verifiers, title page EPD labelling Energy Mix Approach	2022-06-27
6.0	Addition of accreditation mark, clarification Owner and Holder of EPD-Document - specification of CF factors, editorial changes	2023-01-27

#### BAU EPD M-DOCUMENT 13A2

project report content and format template

Last update: 2023-01-27

version: 6.0



# Content

cope		4
Require	ments on the layout of the project report	4
Content	t of the project report	4
Ge	neral information	8
2 Pro	oduct	10
2.1	General product description	10
2.2	Application field	10
2.3	Standards, guidelines and regulations relevant for the product	
2.4	Technical data	10
2.5	Basic/auxiliary materials	10
2.6	Production	11
2.7	Packaging	11
2.8	Conditions of delivery	
2.9	Transport	11
2.10	Processing/ installation	
2.11	Use stage	
2.12	Reference service life (RSL)	
2.13	Reuse and recycling	
2.14	Disposal	
2.15	Further information	
B LCA	A: Calculation rules	12
3.1	Declared unit/ Functional unit	12
3.2	System boundary	
3.3	Flow chart of processes/stages in the life cycle	
3.4	Estimations and assumptions	
3.5	Cut-off criteria	
3.6	Data sources	
3.7	Data quality	
3.8	Reporting period	
3.9	Allocation	
3.10	Comparability	
	A: Scenarios and additional technical information	
4.1	A1-A3 product stage	
4.2	A4-A5 Construction process stage	
4.3	B1-B7 use stage	
4.4	C1-C4 End-of-Life stage	
4.5	D Potential of reuse and recycling	
_	A: results	
	A: Interpretation	
	scription of representativity of average EPD	
	erature	
	rectory and Glossary	
9.1	List of figures.	
9.1	List of tables	
9.2	Abbreviations	
	L - Documentation of data collection and calculation procedure	
	3 – Inventory analysis, Input-Output tables, LCA-Model	
	l - Key figures	
cx 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	41

Last update: 2023-01-27

version: 6.0



#### Scope

This document contains requirements on the project report for EPD creation as EN 15804 and ISO 14025.

The document is the basis for all EPD created within the programme of Bau EPD GmbH following the rules in published PCR documents. The mandatory content of the corresponding EPD document can be taken from the respective product specific PCR-B documents and can be seen as a short version of the project report. All content parts of the EPD document must be integrated into the project report.

The requirements on the project report include:

- Requirements from EN ISO 14025
- Requirements on the EN 15804:2019+A2 standard as a European core EPD
- Complementary requirements on EPD of Bau EPD GmbH

The calculation rules for the Life Cycle Assessment and Requirements on the project report are specified in a separate document – "Management System Handbook (MS-HB)" of Bau EPD GmbH.

This template DOES NOT contain any calculation rules but serves only as a template for structure and format.

#### Requirements on the layout of the project report

Bau-EPD GmbH determines the following features with regard to the layout of the project report:

- The document on hand defines the format template for the project report document that is to fill in (download at www.bau-epd.at).
- The content of an EPD is not limited in length of text.
- The layout of the front page of the project report is defined and picture material must be accorded with Bau EPD GmbH. The creation of more than one EPD documents referring to the project report is possible. On the frontpage several pictures can be displayed, in the respective EPD documents only those that are declared in the document.
- On the last page of the project report the publishing institution as well as the programme operator (Bau EPD GmbH in both cases), the LCA practitioner and owner of the declaration must be indicated with a logo and full address (including telephone number, fax number, email and website).
- Generally the font "Calibri" must be used.
- In addition to the EPD as Microsoft Word format an Excel-document must be created including the result tables for electronic transfer and complying to EN 15942 (ITM Matrix). It is mandatory to use the templates of Bau EPD GmbH for these tables also serve to forward data to database owners (OEKOBAUDAT and BAUBOOK).

### Content of the project report

The following format template respective guidance describes the required structure of the project report document including the **required content for each individual chapter**.

In addition to that, this document is giving specific notes for the creation of the products under study and specific LCA calculation rules for the products under study that must be considered when creating the EPD and underlying LCA study.

Parts of the content that are considered as additional information of optional character (=not required as per international standard and/or guidelines from ECO Platform) are marked in lilac colour. This information is free to choose whether to declare or not and indications can be delivered by the owner of the declaration on an optional basis.

Legend:

Blue: required content for each chapter

Turquoise: specific requirements for project report/EPD of materials from the scope of the PCR specific LCA rules for project report/EPD of material from the scope of the PCR

Violet: additional information of optional character

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page 4 / 28 creator: SR

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# EPD - project report for creation of an

# Environmental product declaration as per ISO 14025 and EN 15804+A2





OWNER AND PUBLISHER Bau EPD GmbH, A-1070 Wien, Seidengasse 13/3, www.bau-epd.at

PROGRAMME OPERATOR Bau EPD GmbH, A-1070 Wien, Seidengasse 13/3, www.bau-epd.at

HOLDER OF THE DECLARATION Name of declaration holder

DECLARATION NUMBER To be accorded with Bau EPD GmbH

VALID TO

NUMBER OF DATASETS

Date

Number

ENERGY MIX APPROACH MARKET BASED APPROACH

Name and description of product

Name of declaration owner

picture

To be accorded with declaration owner and Bau EPD GmbH

Company logo of declaration owner

Last update: 2023-01-27

version: 6.0



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Notes for copyright:

#### Example:

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All information and reference, data and results which are contained in this document were compiled by the author(s) after best knowledge and certain and examined with greatest possible care.

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version: 6.0



# Content of the project report

1	Ger	neral information	8
2	Pro	duct	10
	2.1	General product description	10
	2.2	Application field	10
	2.3	Standards, guidelines and regulations relevant for the product	10
	2.4	Technical data	10
	2.5	Basic/auxiliary materials	
	2.6	Production	11
	2.7	Packaging	11
	2.8	Conditions of delivery	11
	2.9	Transport	11
	2.10	Processing/ installation	11
	2.11	Use stage	11
	2.12	Reference service life (RSL)	11
	2.13	Reuse and recycling	11
	2.14	Disposal	11
	2.15	Further information	12
3	LCA	: Calculation rules	
	3.1	Declared unit/ Functional unit	12
	3.2	System boundary	12
	3.3	Flow chart of processes/stages in the life cycle	13
	3.4	Estimations and assumptions	13
:	3.5	Cut-off criteria	13
:	3.6	Data sources	14
	3.7	Data quality	14
	3.8	Reporting period	14
	3.9	Allocation	14
	3.10	Comparability	14
4	LCA	: Scenarios and additional technical information	14
	4.1	A1-A3 product stage	14
	4.2	A4-A5 Construction process stage	15
	4.3	B1-B7 use stage	15
	4.4	C1-C4 End-of-Life stage	17
	4.5	D Potential of reuse and recycling	18
5	LCA	: results	18
6		: Interpretation	
7		cription of representativity of average EPD	
3		rature	
9	Dire	ectory and Glossary	
!	9.1	List of figures	
	9.2	List of tables	
		Abbreviations	
		- Documentation of data collection and calculation procedure	
		– Inventory analysis, Input-Output tables, LCA-Model	
٩n	nex 4	- Key figures	27

version: 6.0



#### **General information**

Due duet nome	Declared Dreduct / Declared Heit					
Product name	Declared Product / Declared Unit					
Name and description of product	Description of the declared product and declared unit/functional unit					
Declaration number	Number of datasets in this EPD Document(s): XX					
To be accorded with Bau EPD GmbH						
Declaration data	Range of validity					
Specific data	The product, the sites and location (region, country) on which the data of the LCA					
Average data	study is based must be cited.					
	In case of average EPD the calculation of the average must be described shortly. By					
Declaration based on:	doing so, the representativity of the declaration with regard to the product masses					
MS-HB Version XX dated TT.MM.YYYY:	covered by the LCA and the used technologies must be described. The range of					
Name of PCR	variation of the product group described and declared in the interpretation must					
PCR-Code	be stated.					
Version XX dated TT.MM.YYYY						
(PCR tested and approved by the independent						
expert committee						
= PKR-Gremium)						
The owner of the declaration is liable for the						
underlying information and evidence;						
Bau EPD GmbH is not liable with respect to						
manufacturer information, life cycle assessment						
data and evidence.						
Type of Declaration as per EN 15804	Database, Software, Version					
From cradle to	Declaration of backround database, Software used and both its versions					
LCA-Methode:(i.e. Cut-off by classification)	Version Characterisation Factors: Quelle, Version					
Author of the Life Cycle Assessment	The CEN standard EN 15804:2019+A2 serves as the core-PCR.					
Name of the author	Independent verification of the declaration according to ISO 14025:2010					
Institution, Address						
website	internally externally					
	Verifier 1: Name					
	Verifier 2: Name					
Holder of the Declaration	Owner, Publisher and Programme Operator					
Name of the manufacturer/owner	Bau EPD GmbH					
Institution, Address	Seidengasse 13/3					
website	1070 Vienna					
	Austria					
. ,	DI DI Sarah Richter Conformity Assessment Body					
<b>Academic Title Name</b> Verifier	Academic Title Name,  Verifier					

**Note:** EPDs from similar product groups from different programmes might not be comparable.

**BAU EPD M-DOCUMENT 13A2** project report content and format template Last update: 2023-01-27

version: 6.0



Date of project report: Version 1, date Internal number of the project: optional Scope of the study: Creation of LCA calculation as on the basis of received inventory data for XXXXX. Text Based on: Text Description of the goals of the study: "The LCA study serves as a basis for the preparation of an Environmental product declaration (EPD). It was calculated following the rules auf Bau EPD GmbH as a programme operator for EPD creation and is in compliance with EN 15804:2019+A2. The results are assigned to be  $published \ in \ an \ EPD \ document. \ The \ data \ is \ prospected \ for \ EPD \ business-to-business \ communication."$ Any further goals of the study must be stated here.

Text Based on: Text

version: 6.0



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#### 2.1 General product description

Content as defined in product specific PCR-B document.

#### 2.2 Application field

Content as defined in product specific PCR-B document.

# 2.3 Standards, guidelines and regulations relevant for the product

Content as defined in product specific PCR-B document.

#### **Table 1: Product specific standards**

Standard	Title

#### 2.4 Technical data

Content as defined in product specific PCR-B document.

#### Table 2: Technical data for product category XX

Characterization	Value	Unit

#### 2.5 Basic/auxiliary materials

Content as defined in product specific PCR-B document.

#### Table 3: base materials in mass-% (example)

Components:	Function	Mass %
XXX 1)		
XXX <sup>2)</sup>		
XXX 3)		

x) Optional: footnote with description for each component

version: 6.0



#### 2.6 Production

Content as defined in product specific PCR-B document.

Graphic/diagramme

#### Figure 1: Example of a flow chart/graphic production stage

#### 2.7 Packaging

Content as defined in product specific PCR-B document.

#### 2.8 Conditions of delivery

Content as defined in product specific PCR-B document.

#### 2.9 Transport

Content as defined in product specific PCR-B document.

#### 2.10 Processing/installation

Content as defined in product specific PCR-B document.

#### 2.11 Use stage

Content as defined in product specific PCR-B document.

# 2.12 Reference service life (RSL)

Content as defined in product specific PCR-B document.

#### Table 3: Reference service life (RSL)

Characterization	value	unit
		years
Reference conditions on which the RSL is based (if relevant)		Individual units

#### 2.13 Reuse and recycling

Content as defined in product specific PCR-B document.

# 2.14 Disposal

Content as defined in product specific PCR-B document.

### BAU EPD M-DOCUMENT 13A2 project report content and format template Last update: 2023-01-27

version: 6.0



#### 2.15 Further information

Content as defined in product specific PCR-B document.

#### 3 LCA: Calculation rules

#### 3.1 Declared unit/Functional unit

The declared resp. functional unit, the mass reference and the conversion factor to 1 kg must be declared in a table.

#### **Specific LCA calculation rules for product XX:**

Text

Table 4: Declared unit/Functional unit (can be shown in two tables if both are declared)

characterization	value	unit		
declared unit	1	m³		
Calculation factor for conversion into kg		2		

If average results of different products are declared, the methods of calculating the average values must be explained. In this case the average value of nominal density/ weight per unit used for calculating the LCA must be declared as an additional information.

#### 3.2 System boundary

The type of EPD with regard to the applied system boundaries must be stated in the EPD.

- From cradle to gate
- From cradle to gate with options
- From cradle to grave

All declared life cycle stages (modules) must be marked with "X" in Table 5. Modules not declared must be marked with MND.

version: 6.0



#### Table 5: Declared life cycle stages

PROD	PRODUCT STAGE		CON- STRU PROC STAG	CTION	USE S	USE STAGE					END-OF-LIFE STAGE			BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES		
A1	A2	A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
Raw material supply	Transport	Manufacturing	Transport from the gate	Construction, installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction, demolition	Transport	Waste processing	Disposal	Reuse– Recovery- Recycling- potential
x	х	х	х	x	х	х	х	х	х	х	х	х	х	х	х	х

X = included in LCA; MND = Module not declared

The modules assessed in the LCA study must be described shortly. It should be made apparent, which processes are calculated in which module and how the system boundaries to nature resp. to other product systems are set (if relevant for the declared product).

If not all modules are declared in an EPD, a clear justification must be given.

Specific	c LCA calculation rules for product XX:
A1-A3:	
Text	
A4-A5:	
Text	
B1-B7:	
Text	
C1 - C4	und D:
Text	
3.3	Flow chart of processes/stages in the life cycle

A meaningful flow chart describing the manufacturing process shall give further aid to comprehension. The flow chart must be subdivided at least into the phases of life cycle declared (production, use, end-of-life). The phases can be partitioned into appropriate process stages.

#### 3.4 Estimations and assumptions

Estimations and assumptions important for the interpretation of the LCA can be stated here, if not already documented in other chapters.

#### 3.5 Cut-off criteria

The application of cut-off criteria must be documented here according to PCR-part A "General Rules for LCA assessment and requirements on the project report".

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page 13 / 28 creator: SR

version: 6.0



#### 3.6 Data sources

The quality of the collected data must be described.

#### 3.7 Data quality

The sources of the used data sets must be declared. If necessary, additional information on the quality of the used data sets shall be made (estimations). The issuing year of the used data material must be indicated.

#### 3.8 Reporting period

The period under review must be documented (in case of average EPD this would be the basis of the calculated average).

#### 3.9 Allocation

The allocations of relevance for calculation (appropriation of expenses across various products) must be indicated, at least:

- System boundary settings/allocation in the use of recycled and/or secondary raw materials
- Allocation concerning co-products
- Allocation of energy, auxiliary and operating materials used for individual products in a factory
- Loads and credits from recycling or energy recovery of packaging materials and production waste
- Loads and credits from recycling or energy recovery from the end of life of the product

whereby reference must be made to the modules in which the allocations are performed.

Detailed regulations concerning calculation of secondary materials and allocation from PCR part A "LCA rules" apply in all studies.

#### **Specific LCA calculation rules for product XX:**

Text

#### 3.10 Comparability

With reference to comparability of EPD data the following facts must be mentioned:

Comparison or benchmarking of EPD data is only possible, if all compared data sets are calculating following EN 15804 in the same version, the same programme specific PCR-rules or other additional rules. The same backround data sources and software versions must be applied. Moreover, the context of the function in the building or product specific features of performance must be considered.

# 4 LCA: Scenarios and additional technical information

The following information is mandatory to give for all declared modules, for modules not declared it is optional. If need, additional information can be declared.

#### 4.1 A1-A3 product stage

Following EN 15804 no scenario documentation is required for A1-A3 for the declaration and calculation of these modules lies within the responsibility of the manufacturer and must not be altered by the LCA practitioner.

Note: the masses of packaging per declared unit must be indicated, this is especially important if A5 is not declared.

version: 6.0



#### 4.2 A4-A5 Construction process stage

Table 6 and the units listed must be used for calculation the environmental impact of the transport phase.

Table 7 and the units listed must be used for calculation the environmental impact of the installation into the building.

Table 6: Description of the scenario "Transport to building site (A4)"

Parameters to describe the transport to the building site (A4)	Quantity per m <sup>3</sup> insulation material
Average transport distance	km
vehicle type, Commission Directive 2007/37/EC (European Emission Standard)	-
Fuel type and average consumption of vehicle	l/100 km
Maximum transport mass	tons
Capacity utilisation (including empty returns)	%
Bulk density of transported products	kg/m³
Volume capacity utilisation factor (factor: =1 or <1 or ≥ 1 for compressed or nested packaged	
products)	-

x) The table must be filled with reference to the information available from the datasets used (i.e. in case of transport by ship). The datasets used must be noted in a footnote.

#### Table 7: Description of the scenario "Installation of the product in the building (A5)"

Parameters to describe the installation of the product in the building (A5)	Quantity per m <sup>3</sup> insulation material
Ancillary materials for installation (specified by material);	Meaningful unit
Water use	m³
Other resource use	kg
Electricity demand	kWh or MJ
Other energy carrier(s):	kWh or other unit (e.g. litres)
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	kg
Output materials (specified by type) as result of waste processing at the building site e.g. of collection for recycling, for energy recovery, disposal (specified by route)	kg
Direct emissions to ambient air, soil and water	kg

#### 4.3 B1-B7 use stage

Reference Service life: [a]

Statements to B1 optional as long as no horizontal testing standards do exist. Else: 0

The parameters and the units listed in the following tables must be used for calculation the environmental impact of the use stage (B2-B7). The tables can be excluded if no input or output happens. In this case a note of explanation would be sufficient: "In module BX-BY no material resp. mass flows occur, input +/- output = 0

version: 6.0



#### Table 8: Description of the scenario "maintenance (B2)" based on table 9 in EN 15804

Parameters maintenance (B2)	value	unit
Maintenance process		Description or
		source where
		description can be
		found
Maintenance cycle		Number per RSL or
		year <sup>a</sup>
Ancillary materials for maintenance, e.g.		Kg/cycle
cleaning agent, specify materials		
Waste material resulting from maintenance (specify materials)		kg
Net freshwater consumption during maintenance		m³
Energy input during maintenance, e.g. vacuum cleaning, energy carrier type, e.g.		LAATI
electricity, and amount, if applicable and relevant		kWh

#### Table 9: Description of the scenario "repair (B3)"

Parameters repair (B3)	value	unit
Repair process		Description or source where description can be found
Inspection process		Description or source where description can be found
Repair cycle		Number per RSL or year
Ancillary materials, e.g. lubricant, specify materials		Kg or kg/cycle
Waste material resulting from repair, (specify materials)		kg
Net freshwater consumption during repair		m³
Energy input during repair, e.g. crane activity, energy carrier type, e.g. electricity, and amount		kWh

#### Table 10: Description of scenario "replacement (B4)"

Parameters replacement (B4)	value	unit
Replacement cycle		Number per RSL or
		year
Energy input during replacement e.g. crane activity, energy carrier type, e.g.		kWh
electricity and amount if applicable and relevant		
Exchange of worn parts during the product's life cycle, e.g. zinc galvanised steel sheet,		kg
specify materials		

Last update: 2023-01-27

version: 6.0



Parameters refurbishment (B5)	value	unit
Refurbishment process		Description or
		source where
		description can be
		found
Refurbishment cycle		Number per RSL or
		year
Energy input during refurbishment e.g. crane		kWh
activity, energy carrier type, e.g. electricity, and		
amount if applicable and relevant		
Material input for refurbishment, e.g. bricks, including ancillary materials for the		kg or kg / cycle
refurbishment process e.g. lubricant, (specify materials)		
Waste material resulting from refurbishment (specify materials)		kg
Further assumptions for scenario development, e.g. frequency and time period of use,		Units as appropriate
number of occupants		

#### Table 12: Description of scenarios "energy (B6)" resp. "Water (B7)"

Parameters energy (B6) and water (B7)	value	unit
Ancillary materials, e.g. lubricant, specify		Kg or kg/cycle
materials		
Net fresh water consumption		m³
Type of energy carrier, e.g. electricity, natural gas, district		kWh or m³
heating		
Power output of equipment		kW
Characteristic performance, e.g. energy efficiency, emissions, variation of performanc		units as appropriate
with capacity utilisation etc.		
Further assumptions for scenario development, e.g. frequency and period of use,		units as appropriate
number of occupants		

Specific LCA calculation rules for product XX:
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Text

# 4.4 C1-C4 End-of-Life stage

Short description of processes concerning disposal and scenarios going with that (i.e. for transport).

**Specific LCA calculation rules for product XX:** 

Text.

version: 6.0



#### Table 13: Description of the scenario "Disposal of the product (C1 to C4)"

(Procedures of collection and recovery must be described in a footnote (including technical features).

Parameters for End-of-Life stage (C1-C4)	value	Quantity per m³ insulation material
Collection process specified by type		kg collected separately
Conection process specified by type		kg collected with mixed construction waste
		kg <sub>for re-use</sub>
Recovery system specified by type		kg for recycling
		kg for energy recovery
Disposal specified by type		kg product or material for final deposition
Assumptions for scenario development, e.g. transportation		Appropriate units

#### 4.5 D Potential of reuse and recycling

Short description of assumptions for reuse-, recover- and recycling processes.

**Specific LCA calculation rules for product XX:** 

Text

#### Table 14: Description of the scenario "re-use, recovery and recycling potential (module D)"

(Substituted primary materials resp. technologies must be declared in a separate footnote (including technical information).

Parameters for module D	value	unit
Materials for reuse, recovery or recycling from A4-A5		%
Energy recovery or secondary fuels from A4-A5		MJ/t resp. kg/t
Materials for reuse, recovery or recycling from B2-B5		%
Energy recovery or secondary fuels from B2-B5		MJ/t resp. kg/t
Materials for reuse, recovery or recycling from C1-C4		%
Energy recovery or secondary fuels from C1-C4		MJ/t resp. kg/t

page 18 / 28 creator: SR verified/approved by: FG/SR

version: 6.0



#### 5 LCA: results

The declaration of environmental indicators must be listed in the following tables (Table 15 bis Table 19) with reference only to the declared life cycle stages. Indicator values should be declared with three valid digits (eventually exponential form (e.g. 1.23E-5 = 0.0000123). A uniform format should be used for all values of one indicator.

It is preferred that the definitions of the environmental indicators are spelled out completely to ensure the best possible readability. If space is needed in case of too many columns the defined abbreviations are accepted.

Table 15: Parameters to describe the environmental impact

Para- meter	unit	A1-A3	A4	A5	B1	B2	B5	В6	В7	C1	C2	С3	C4	D
GWP total	kg CO₂ eq.													
GWP fossil fuels	kg CO₂ eq.													
GWP biogenic	kg CO₂ eq.													
GWP Iuluc	kg CO₂ eq.													
ODP	kg CFC-11 eq.													
AP	mol H⁺ eq.													
EP freshwater	kg PO₄³- eq.													
EP marine	kg N eq.													
EP terrestrial	mol N eq.													
POCP	kg NMVOC eq.													
ADPE	kg Sb eq.													
ADPF	MJ H <sub>u</sub>													
WDP	m3 Welt eq. entz.													
Legende		GWP = Glo ODP = Dep AP = Acidif EP = Eutrop ADPE = Abi WDP = Wa	letion por ication po phication otic depl	tential of otential, <i>i</i> potentia etion pot	the stra Accumula I; POCP = ential fo	tospheric ated Exce Formati r non-fos	ozone la edance; on poten sil resou	ayer; EP = Eutr ntial of tro rces; ADF	ophierur oposphei PF = Abio	ric ozone tic deplet	photoch ion pote			ources

**Table 16: Additional environmental impact indicators** 

Parameter	Unit	A1-A3	A4	A5	B1	B2	B5	В6	В7	C1	C2	С3	C4	D
PM	disease incidence													
IRP	kBq U235 eq.													
ETP-fw	CTUe													
HTP-c	CTUh													
HTP-nc	CTUh													
SQP	dimension- less													
Legende		PM = Potential incidence of disease due to Partuculate Matter emissions; IRP = Potential Human exposure efficiency relative to U235; ETP-fw = Potential Comparative Toxic Unit for ecosystems; HTP-c = Potential Comparative Toxic Unit for humans – cancer effect; HTP-nc = Potential Comparative Toxic Unit for humans – non-cancer effect; SQP = Potential soil quality index												

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Table 17 presents disclaimers which shall be declared in the project report and in the EPD with regard to the declaration of relevant core and additional environmental impact indicators according to the following classification. That can be declared in a footnote in the EPD.

Table 17: Classification of disclaimers to the declaration of core and additional environmental impact indicators

ILCD-classification	Indicator	disclaimer
	Global warming potential (GWP)	none
ILCD-Type 1	Depletion potential of the stratospheric ozone layer (ODP)	none
	Potential incidence of disease due to PM emissions (PM)	none
	Acidification potential, Accumulated Exceedance (AP)	none
	Eutrophication potential, Fraction of nutrients reaching	none
	freshwater end compartment (EP-freshwater)	
	Eutrophication potential, Fraction of nutrients reaching	none
ILCD-Type 2	marine end compartment (EP-marine)	
	Eutrophication potential, Accumulated Exceedance	none
	(EP-terrestrial)	
	Formation potential of tropospheric ozone (POCP)	none
	Potential Human exposure efficiency relative to U235 (IRP)	1
	Abiotic depletion potential for non-fossil resources	2
	(ADP-minerals&metals)	2
	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential, deprivation-weighted	2
ILCD-Type 3	water consumption (WDP)	2
	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	2
	Potential Comparative Toxic Unit for humans (HTP-c)	2
	Potential Comparative Toxic Unit for humans (HTP-nc)	2
	Potential Soil quality index (SQP)	2

Disclaimer 1 – This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

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#### Table 18: Parameters to describe the use of resources

Para-	unit	A1-A3	A4	A5	B1	B2	B5	В6	В7	C1	C2	C3	C4	D
meter														
PERE	MJ, net													
	calorific													
	value													
PERM	MJ, net													
	calorific													
	value													
PERT	MJ, net													
	calorific													
	value													
PENRE	MJ, net													
	calorific													
	value													
PENRM	MJ, net													
	calorific													
	value													
PENRT	MJ, net													
	calorific													
	value													
SM	kg													
RSF	MJ, net													
	calorific													
	value													
NRSF	MJ, net													
	calorific													
FW	value													
1 VV	m³													
		DEDE - D	anowahle =	rimary ene	ray ac ana	av carria	r. DEDM	- Popovi	able prim	2274 222	av rece:	reas as ==	atorial	
Legend				otal use of										
				RM = Non-r					utilizatio	on; PENR	T = Total	use of no	n-renew	able
				urces; SM : able second					hle secon	ıdary fue	ls:			
			of fresh w		y 14Cl3, I		01 11011	· CIICVV	J.C JCC011	. wai y Tue	,			

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Table 19: Parameters describing LCA-output flows and waste categories

Para- meter	unit	A1-A3	A4	A5	B1	B2	B5	В6	В7	C1	C2	СЗ	C4	D
HWD	kg													
NHWD	kg													
RWD	kg													
CRU	kg													
MFR	kg													
MER	kg													
EEE	MJ													
EET	MJ													
Legend		HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed;  CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported												
Legend		electric energy; EET = Exported thermal energy												

Table 20: Information describing the biogenic carbon content at the factory gate

Biogenic carbon content	Unit
Biogenic carbon content in product	kg C
Biogenic carbon content in accompanying packaging	kg C
NOTE 1 kg biogenic carbon is equivalent to 44/12 kg of CO2	

#### 6 LCA: Interpretation

For better understanding of the LCA, the aggregated indicators of the inventory analysis as well as those of the impact assessment (LCIA) from chapter 5 must be interpreted in a dominance analysis. The interpretation must describe a range resp. variance of LCIA results, if the EPD is valid for more than one product.

It is recommended to illustrate the results with graphic elements (i.e. the dominance analysis showing distribution of environmental impacts over several modules...)

When declaring average products, the range of possible results for the individual products for the main impact categories that are relevant to the materials used must be specified.

As for module D, the interpretation must declare, that the benefits and loads lie beyond the system boundary. Any graphic elements showing result interpretation of the life cycle must be created in a way, that modules A1-C4 and module D are displayed separate picture elements. Alternatively, the results can be interpreted without graphic elements.

#### **Extension of an EPD:**

It is mandatory to declare in a separate block in the project report:

Reasons for deviations of results of single indicators of more than 15% compared to the results before. This serves as an information for verifiers and enhances legal compliance. Users of the data can be informed of such facts.

Claims that can be published (i.e. same framework conditions, different electricity mix) can be declared in the EPD, if desired.

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page 23 / 28 creator: SR

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# 7 Description of representativity of average EPD

In case of average EPD the following information must be given:

- a) The market(s) for which the average EPD are representative;
- b) A list of all production sites and products considered in the calculation

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#### 3 Literature

Relevant standards and sources for the preparation of the EPD resp. for the definition of the product must be listed here. The full documentation of references is to be done as follows:

Author, First name. and Author, First name. (year). Title of article. subtitle. location: publishing company.

Author, First name. (year). Title of article. In: Surname, First name. and Surname, First name. (Publishing company): Name of paper. Bd. 2 or year number, 207-210.

Organisation (Year): Full name of standard or rule. Date of Issue. Location. Legal institution.

#### Always to be quoted:

ÖNORM EN ISO 14040 Environmental management - Life cycle assessment -- Principles and framework

ÖNORM EN ISO 14044 Environmental management - Life cycle assessment -- Requirements and guidelines

ÖNORM EN ISO 14025 Environmental labels and declarations -Type III environmental declarations -- Principles and procedures

ÖNORM EN 15804 Sustainability of construction works - environmental product declarations. Core rules for the product category of construction products

General Principles and Guidelines Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Background Report. Bau-EPD GmbH, in the current version

#### 9 Directory and Glossary

#### 9.1 List of figures

Figure 1: Example of a flow chart/graphic production stage.......11

#### 9.2 List of tables

Table 1: Product specific standards	10
Table 2: Technical data for product category XX	10
Table 3: Reference service life (RSL)	11
Table 4: Declared unit/Functional unit (can be shown in two tables if both are declared)	12
Table 5: Declared life cycle stages	13
Table 6: Description of the scenario "Transport to building site (A4)"	15
Table 7: Description of the scenario "Installation of the product in the building (A5)"	15
Table 8: Description of the scenario "maintenance (B2)" based on table 9 in EN 15804	16
Table 9: Description of the scenario "repair (B3)"	16
Table 10: Description of scenario "replacement (B4)"	16
Table 11: Description of scenario "refurbishment (B5)"	16
Table 12: Description of scenarios "energy (B6)" resp. "Water (B7)"	17
Table 13: Description of the scenario "Disposal of the product (C1 to C4)"	18
Table 14: Description of the scenario "re-use, recovery and recycling potential (module D)"	18
Table 15: Parameters to describe the environmental impact	19
Table 16: Additional environmental impact indicators	19
Table 17: Classification of disclaimers to the declaration of core and additional environmental impact indicators	21
Table 18: Parameters to describe the use of resources	22
Table 19: Parameters describing LCA-output flows and waste categories	23
Table 20: Information describing the biogenic carbon content at the factory gate	23

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page 25 / 28

# BAU EPD M-DOCUMENT 13A2

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Last update: 2023-01-27

version: 6.0



# 9.3 Abbreviations

#### 9.3.1 Abbreviations as per ÖNORM EN 15804

EPD environmental product declaration

PCR product category rules
LCA life cycle assessment
LCI life cycle inventory analysis
LCIA life cycle impact assessment

RSL reference service life ESL estimated service life

EPBD Energy Performance of Buildings Directive

GWP global warming potential

ODP depletion potential of the stratospheric ozone layer

AP acidification potential of soil and water

EP eutrophication potential

POCP formation potential of tropospheric ozone

ADP abiotic depletion potential

#### 9.3.2 Abbreviations as per PCR on hand

CE-mark french: Communauté Européenne or Conformité Européenne = EC certificate of conformity

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

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version: 6.0



# Annex 1 - Documentation of data collection and calculation procedure

# Annex 2 - Table of basic/auxiliary material in detail

Table, text

# Annex 3 - Inventory analysis, Input-Output tables, LCA-Model

Chosen data sets from the respective backround data base, justification for using additional or alternative datasets Description of allocation of process data to generic data Screenshots of inventory analysis resp. LCA Model

# Annex 4 - Key figures

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