

# **Template for content and format of the project report for PRE-STUDIES for EPD creation for construction products**

**As per ISO 14025 and EN 15804+A2**

**Additional and compatible with the Programme for EPD (Environmental Product  
Declarations) of Bau EPD GmbH**



[www.bau-epd.at](http://www.bau-epd.at)

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### Tracking of versions

Version	Comments	Date of changes
1.0	Template created by F. Gschösser and S. Richter based on the current structure of the product-specific PCR as per EN 15804+A2. Amendment texts for preliminary studies incorporated	2023-10-02

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## Scope

This document contains requirements on the project report for a pre-study for EPD creation as EN 15804:2019+A2:2019+corr2021 and ISO 14025.

The document is the basis for all pre-studies to EPDs created within the programme of Bau EPD GmbH following the rules in published PCR documents. The mandatory content of the corresponding pre-study 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 pre-study document must be integrated into the pre-study project report.

The distinction between preliminary studies and actual EPDs from Bau EPD GmbH can be made as follows:

Preliminary studies do not take place within the scope of accreditation of Bau EPD GmbH and do not have to comply with all points of the specifications of the umbrella organisation ECO Platform. They may or may not comply with EN 15804 in all respects. They may contain specific data or generic data and should be as representative as possible. If the data for A1-A3 originate from research projects, extrapolations or simulations and/or no representative, sufficient period of time can be demonstrated for an actual life cycle inventory data collection at the plant, the project must in any case be regarded as a preliminary study. Preliminary studies are useful for innovations and start-ups, but also for other purposes, and are reviewed by Bau EPD GmbH in accordance with the procedure for EPDs within the scope of accreditation. However, they do not receive an accreditation mark or an ECO Platform logo and are only valid for 2 years. It must be stated in the project report when the actual data collection is scheduled to begin. The data must then be replaced and a new verification for EPDs within the scope of accreditation must be carried out. In any case, the preliminary study is withdrawn as expired when the 2-year period is over, even if no EPD can follow promptly.

The requirements for the project report for preliminary studies include in principle, whereby exceptions may be justified as mentioned above:

- Requirements from EN ISO 14025
- Requirements on the EN 15804:2019+A2+Corr2021 standard as a European core EPD
- Complementary requirements on EPD of Bau EPD GmbH
- **Complementary-PCR (c-PCR) from CEN, if available, are always to be applied simultaneously with the PKR-B from Bau EPD GmbH. The documents complement each other.**

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](http://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 pre-study documents referring to the project report is possible. On the frontpage several pictures can be displayed, in the respective pre-study public 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.
- Optional on clients request: In addition to the pre-study 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). Note: Bau EPD GmbH does not feed data from preliminary studies into the usual databases.

## 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 pre-study to an 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 of the pre-study of materials from the scope of the PCR
Green:	specific LCA rules for project report of the pre-study of material from the scope of the PCR
Violet:	additional information of optional character

**project report for creation of a PRELIMINARY STUDY for an  
Environmental product declaration as per ISO 14025 and EN 15804+A2**



<b>OWNER AND PUBLISHER</b>	Bau EPD GmbH, A-1070 Wien, Seidengasse 13/3, <a href="http://www.bau-epd.at">www.bau-epd.at</a>
<b>PROGRAMME OPERATOR</b>	Bau EPD GmbH, A-1070 Wien, Seidengasse 13/3, <a href="http://www.bau-epd.at">www.bau-epd.at</a>
<b>HOLDER OF THE DECLARATION</b>	<u>Name of declaration holder</u>
<b>DECLARATION NUMBER</b>	To be accorded with Bau EPD GmbH
<b>ISSUE DATE</b>	<u>Date</u>
<b>VALID TO</b>	<u>Date</u>
<b>NUMBER OF DATASETS</b>	<u>Number</u>
<b>ENERGY MIX APPROACH</b>	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**

Optional:

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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## 1 General information

<b>Product name</b> Name and description of product	<b>Declared Product / Declared Unit</b> Description of the declared product and declared unit/functional unit
<b>Declaration number</b> To be accorded with Bau EPD GmbH	<b>Number of datasets in this pre-study to an EPD Document(s):</b> XX
<b>Declaration data</b> <input type="checkbox"/> Specific data <input type="checkbox"/> Average data	<b>Range of validity</b> The product, the sites and location (region, country) on which the data of the LCA study is based must be cited.
<b>Declaration based on:</b> MS-HB Version XX dated TT.MM.YYYY: Name of PCR PCR-Code Version XX dated TT.MM.YYYY (PCR tested and approved by the independent expert committee = PKR-Gremium) Version of EPD-Format-Template M-Dok 13a 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.	In case of average datasets for pre-studies for EPD the calculation of the average must be described shortly. By doing so, the representativity of the declaration with regard to the product masses covered by the LCA and the used technologies must be described. The range of variation of the product group described and declared in the interpretation must be stated. If no plants exist as part of the preliminary study or production has not yet started, a brief description must be given of the data basis and calculation on which the LCA can be calculated. Points from EN 15804 that cannot be complied with must be quoted and justified. Points from c-PKR and PKR-B that cannot be complied with must be cited and justified.
<b>Type of Declaration as per EN 15804</b> From cradle to ... LCA-Methode: ...(i.e. Cut-off by classification) .....	<b>Database, Software, Version</b> Declaration of background database, Software used and both its versions <b>Version Characterisation Factors:</b> Quelle, Version
<b>Author of the Life Cycle Assessment</b> Name of the author Institution, Address website	<b>The CEN standard EN 15804:2019+A2 serves as the core-PCR. The c-PCR of CEN xxx has been applied</b> <b>Independent verification of the declaration according to ISO 14025:2010</b> <input type="checkbox"/> internally <input checked="" type="checkbox"/> externally <b>Verifier 1:</b> Name <b>Verifier 2:</b> Name
<b>Holder of the Declaration</b> Name of the manufacturer/owner Institution, Address website	<b>Owner, Publisher and Programme Operator</b> Bau EPD GmbH Seidengasse 13/3 1070 Vienna Austria

DI (FH) DI DI Sarah Richter  
 Head of Conformity Assessment Body

Academic Title Name  
 Verifier

Academic Title Name,  
 Verifier

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

C:\Users\Sarah\OwnBauepd\Bau EPD GmbH\006 - QM PKR PGF\PKR Allgemein-MS-HB+M-Docs\English-MS-HB and M-Docs\BAU-EPD-M-DOCUMENT-13aA2-prestudy-project-report-content-and-format-template-EN15804+A2-version1.0-date-2023-10-02-English.docx

**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 a preliminary study for an Environmental product declaration (EPD). It was calculated following the rules auf Bau EPD GmbH as a programme operator for the creation of pre-studies for EPD and is in compliance with EN 15804:2019+A2+corr2021/created in accordance with EN 15804:2019+A2 with the exception of the following chapters..... 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

## 2 Product

### 2.1 General product description

For the product description, the characteristics of the declared product must be described. In the case of an average EPD/preliminary study (sector EPD), all declared products must be described separately.

- Orientation points for the general product description are:
- Separate description of the products in accordance with the applicable product standard, stating the type designations
  - Description of the characteristic components
  - All plant locations for the respective product categories must be specified; alternatively, reference can be made to an overview in the annex (mandatory information in the project report, voluntary information in the preliminary studies/EPD document).

**Specific note on the preparation of a preliminary study/EPD for product category XY:**  
 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

**Specific note on the preparation of a preliminary study/EPD for product category XY:**  
 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.

**Specific note on the preparation of a preliminary study/EPD for product category XY:**

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

Characterization	Value	Unit

For individual pre-study datasets/individual EPDs, the technical data of the product must be listed as required in Table 2. For "sector EPDs" or "group EPDs" or "association EPDs" or EPDs covering several plants and/or products, the table must be completed, whereby an average value and a range and, if necessary, an additional reference to individual technical product data sheets can be given with "see product data sheets". The technical data must be requested from the manufacturers. The LCA-practitioner of the preliminary study/EPD must state the sources of supply in the preliminary study/EPD document. If an average data set/EPD is prepared, the average value for the gross density and its range used in the LCA must be stated in Chapter 3.1 "Declared unit/functional unit". For preliminary studies without specific life cycle inventory data collection, representative averages for several planned plants/products must be simulated and derived in the best possible way. The procedure must be described. Deviations from the rules are generally possible and must be justified.

## 2.5 Basic/auxiliary materials

Content as defined in product specific PCR-B document. The product components and/or ingredients shall be stated in % by mass to enable the user of the preliminary study/EPD to understand the composition of the product as supplied. This information should also support safety and efficiency during installation, use and disposal of the product. The mass % can be specified exactly or as a range (bandwidth) analogue to REACH. The quantity of substances that make up less than 1% by mass of the total product can be stated as "< 1% by mass". The declaration of the material content of the product must list at least those substances contained in the product that are on the list of substances of very high concern for authorisation if their content exceeds the limit value (0.1% by mass at product level) for registration by the European Chemicals Agency (ECHA). An exception to the declaration obligation exists for substances and preparations that lose their hazardous properties during manufacture (e.g. by reacting out). If the content of the substance is below the ECHA limit value, the following note should be made in the preliminary study/EPD: "The content of XXXX is below the limits for registration by the European Chemicals Agency." References such as "... is free from ..." may not be used in the preliminary study/EPD. The product components must be defined to such an extent that their nature is clearly recognisable but company secrets are not disclosed. For additives, at least the function and the substance class or chemical group (e.g. hydraulic binders) must be specified. In addition, auxiliary substances and additives that remain in the product must be declared.

### Specific note on the preparation of a preliminary study/EPD for product category XY:

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

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

<sup>1)</sup> Optional: footnote with description for each component

## 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.

## 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	m <sup>3</sup>
Calculation factor for conversion into kg		=

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 preliminary study for EPD with regard to the applied system boundaries must be stated in the pre-study for 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 ND.

**Table 5: Declared life cycle stages**

PRODUCT STAGE			CON- STRUCTION PROCESS STAGE		USE STAGE							END-OF-LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	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	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

X = included in LCA; ND = 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 a pre-study to an EPD, a clear justification must be given.

### **Specific 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 MS-HB.

### **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 pre-study data sets/average datasets this would be the basis of the calculated average or simulation).

### **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 LCA data the following facts must be mentioned:

Comparison or benchmarking of LCA or 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 background 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.

**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/m <sup>3</sup>
Volume capacity utilisation factor (factor: =1 or <1 or ≥ 1 for compressed or nested packaged products)	-

<sup>x)</sup> 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	m <sup>3</sup>
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

**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. cleaning agent, specify materials		Kg/cycle
Waste material resulting from maintenance (specify materials)		kg
Net freshwater consumption during maintenance		m <sup>3</sup>
Energy input during maintenance, e.g. vacuum cleaning, energy carrier type, e.g. 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		m <sup>3</sup>
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. electricity and amount if applicable and relevant		kWh
Exchange of worn parts during the product’s life cycle, e.g. zinc galvanised steel sheet, specify materials		kg

**Table 11: Description of scenario „refurbishment (B5)“**

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 activity, energy carrier type, e.g. electricity, and amount if applicable and relevant		kWh
Material input for refurbishment, e.g. bricks, including ancillary materials for the refurbishment process e.g. lubricant, (specify materials)		kg or kg / cycle
Waste material resulting from refurbishment (specify materials)		kg
Further assumptions for scenario development, e.g. frequency and time period of use, number of occupants		Units as appropriate

**Table 12: Description of scenarios „energy (B6)“ resp. „Water (B7)“**

Parameters energy (B6) and water (B7)	value	unit
Ancillary materials, e.g. lubricant, specify materials		Kg or kg/cycle
Net fresh water consumption		m <sup>3</sup>
Type of energy carrier, e.g. electricity, natural gas, district heating		kWh or m <sup>3</sup>
Power output of equipment		kW
Characteristic performance, e.g. energy efficiency, emissions, variation of performance with capacity utilisation etc.		units as appropriate
Further assumptions for scenario development, e.g. frequency and period of use, number of occupants		units as appropriate

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

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.

**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 m <sup>3</sup> insulation material
Collection process specified by type		kg collected separately
		kg collected with mixed construction waste
Recovery system specified by type		kg for re-use
		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

## 5 LCA: results

The declaration of environmental indicators must be listed in the following tables 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**

Parameter	unit	A1-A3	A4	A5	B1	B2	B5	B6	B7	C1	C2	C3	C4	D
GWP total	kg CO <sub>2</sub> eq.													
GWP fossil fuels	kg CO <sub>2</sub> eq.													
GWP biogenic	kg CO <sub>2</sub> eq.													
GWP luluc	kg CO <sub>2</sub> eq.													
ODP	kg CFC-11 eq.													
AP	mol H <sup>+</sup> eq.													
EP freshwater	kg P 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	m <sup>3</sup> Welt eq. entz.													
Legende	GWP = Global warming potential; luluc = land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP = Eutrophierungspotenzial; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources WDP = Water (user) deprivation potential, deprivation-weighted water consumption													

**Table 16: Additional environmental impact indicators**

Parameter	Unit	A1-A3	A4	A5	B1	B2	B5	B6	B7	C1	C2	C3	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 Particulate 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													

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
ILCD-Type 1	Global warming potential (GWP)	none
	Depletion potential of the stratospheric ozone layer (ODP)	none
	Potential incidence of disease due to PM emissions (PM)	none
ILCD-Type 2	Acidification potential, Accumulated Exceedance (AP)	none
	Eutrophication potential, Fraction of nutrients reaching freshwater end compartment (EP-freshwater)	none
	Eutrophication potential, Fraction of nutrients reaching marine end compartment (EP-marine)	none
	Eutrophication potential, Accumulated Exceedance (EP-terrestrial)	none
	Formation potential of tropospheric ozone (POCP)	none
	Potential Human exposure efficiency relative to U235 (IRP)	1
ILCD-Type 3	Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)	2
	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential, deprivation-weighted 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.		

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

Parameter	unit	A1-A3	A4	A5	B1	B2	B5	B6	B7	C1	C2	C3	C4	D
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 value													
FW	m <sup>3</sup>													
Legend	<p>PERE = Renewable primary energy as energy carrier; PERM = Renewable primary energy resources as material utilization; PERT = Total use of renewable primary energy resources; PENRE = Non-renewable primary energy as energy carrier; PENRM = Non-renewable primary energy as material utilization; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material;            RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels;            FW = Use of fresh water</p>													



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

Parameter	unit	A1-A3	A4	A5	B1	B2	B5	B6	B7	C1	C2	C3	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 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 pre-study to an EPD is valid for more than one product.

It is recommended to illustrate the interpretation of the results in the project report with graphs (e.g. the dominance analysis regarding the distribution of environmental impacts across the modules, etc.). In the public document for a pre-study/EPD, graphs should only be inserted at the express request of the declaration holder (this involves a high level of effort in the course of translation services into other languages).

When declaring average products, the range of possible results for the individual products should be indicated for the main impact categories relevant to the materials used.

Regarding Module D, the interpretation in the pre-study to an EPD shall indicate that the credits and loads are outside the product system boundaries. Graphs for the interpretation of life cycle results shall be designed in such a way that modules A1-C4 are shown in one graph and module D in separate graphs. Alternatively, the results can be interpreted without graphs, it is recommended to include graphs only in the project report, see above.

**First issuance of an EPD following a pre-study:**

**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.**

C:\Users\Sarah\OwnBauepd\Bau EPD GmbH\006 - QM PKR PGF\PKR Allgemein-MS-HB+M-Docs\English-MS-HB and M-Docs\BAU-EPD-M-DOCUMENT-13aA2-prestudy-project-report-content-and-format-template-EN15804+A2-version1.0-date-2023-10-02-English.docx

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

## 7 Description of representativity of average EPD/average datasets in pre-studies for EPD

In case of average datasets for pre-studies/EPD the following information must be given:

- a) The market(s) for which the average datasets/EPD are representative;
- b) A list of all production sites and products considered in the calculation that shall get specific inventory data/shall get specific inventory data in future times

## 8 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:

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

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

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

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

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### 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

## **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 background 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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