

Core Product Category Rules


Version 1.1

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EPD Hub Limited

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Key updates in this document

This amended version 1.2 is the applicable GPI and valid for EPDs published from 1 January 2024, or later. A transition period of up to six months is granted for the previous version.

| Version | Date | Summary of changes |
|---------|-----------------|---|
| 1.0 | 1 February 2022 | First public version of the document |
| 1.1 | 5 December 2023 | Alignment with French decree of 14 December 2021 for regulatory EPDs, alignment with the applicable ECO Platform requirements, allowing multiple additional scenarios for some life-cycle stages. |

1 Scope

This PCR (product category rules) provides additional requirements and other relevant provisions for developing EPDs (environmental product declarations) and for developing carbon footprint of a product (CFP) declarations based on the basic requirements of Life Cycle Assessment consistent with EN ISO 14044:2006+A2:2020 according to the more specific rules defined in EN 15804+A2:2019, ISO 21930:2017, EN ISO 14067:2018 and EN 50693:2019 under the EPD program managed and owned by EPD Hub Limited.

| | |
|--------------------------------|--|
| More information | www.epdhub.com |
| Contact details | hub@epdhub.com |
| Date of PCR publication | 1 February 2022 (first version) |
| End of PCR validity | 31 January 2027 |

NOTE: This PCR is intended to provide LCA information mainly for business-to-business use, but the same information can generally be also accessed by consumers.

1.1 Creation and maintenance of this PCR

This PCR has been drafted by EPD Hub Limited and was submitted to both a consultation and an independent expert panel for review through November 2021 to January 2022.

The PCR consultation was sent to approximately 60 organizations for comments. The first version of the PCR was published on 1 February 2022.

The second version of the PCR was created based on accumulated feedback by EPD Hub, and sent for consultation, following which the final version of the PCR was compiled.

Further updates of the PCR shall be performed by EPD Hub Limited according to the GPI.

1.2 Normative references

For undated references, the latest edition of the reference document (including any amendments) applies.

EN 15804+A2:2019 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products;
ISO 21930:2017 Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services;
EN ISO 14025:2006 Environmental labels and declarations —Type III environmental declarations — Principles and procedures;

EN ISO 14040:2006+A1:2020 Environmental management — Life cycle assessment — Principles and guidelines;
EN ISO 14044:2006+A2:2020 Environmental management — Life cycle assessment — Requirements and guidelines;
EN ISO 14067:2018 Greenhouse gases. Carbon footprint of products. Requirements and guidelines for quantification;
EN 50693:2019 Product category rules for life cycle assessments of electronic and electrical products and systems.

Further, the EPDs shall follow the rules of the Eco Platform, as set out in the document: Audit and Verification Guidelines for ECO EPD Programme Operators, 6 March 2023.

1.3 Optional references

References to ISO 14067 are provided for comparability across standards for all projects that do not pursue ISO 14067 compliance.

CEN TR 16970 (Sustainability of construction works — Guidance for the implementation of EN 15804.

In addition, any complementary PCRs (c-PCR) aligned with EN 15804+A2:2019 may be used together with this PCR as optional c-PCRs. Using these is recommended for manufacturers who introduce products to the EU Single Market.

Such c-PCRs can be used when they are not in contradiction with EN 15804+A2:2019, ISO 21930:2017, EN 50693:2019, EN ISO 14067:2018, and this PCR. In cases where there is conflicting information between this PCR and the c-PCR, this PCR must be followed. However, providing information as it is required by the c-PCR in such conflict cases as additional information may be done, but not required.


2 Terms and definitions

2.1 Definitions of terms

As defined in EN 15804+A2:2019, ISO 21930:2017, EN 50693:2019 and EN ISO 14067:2018.

average data

data representative of a product, product group or construction service, provided by one or more suppliers

 French EPDs must follow the article 8 of the decree of December 14, 2021 relating to the environmental declaration of products intended for use in building works and to the environmental declaration of products used to calculate the environmental performance of buildings for averaging rules

carbon footprint of a product (CFP)

sum of GHG emissions and GHG removals in a product system, expressed as CO₂ equivalents and based on a life cycle assessment using the single impact category of climate change

declared unit

quantity of a construction or a manufactured product for use as a reference unit in an EPD or a CFP for an environmental declaration based on one or more information modules

global warming potential (GWP) Index, based on radiative properties of GHGs, measuring the radiative forcing following a pulse emission of a unit mass of a given GHG in the present-day atmosphere integrated over a chosen time horizon, relative to that of carbon dioxide (CO₂)

greenhouse gas (GHG)

gaseous constituent of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds

functional unit

quantified performance of a product system for use as a reference unit

information module

compilation of data to be used as a basis for a Type III environmental declaration covering a unit process or a combination of unit processes that are part of the life cycle of a product

partial carbon footprint of a product

sum of GHG emissions and GHG removals of one or more selected process(es) in a product system, expressed as CO₂ equivalents and based on the selected stages or processes within the life cycle


product category rules (PCR)

set of specific rules, requirements, and guidelines for developing Type III environmental declarations for one or more product categories

reference service life (RSL)

service life of a construction product, component, assembly, or system which is known to be expected under a set of reference in-use conditions and which may form the basis of estimating the service life under other in-use conditions

2.2 Abbreviated terms

| | |
|--|---|
| EEE | Electric and Electronic Equipment, including HVAC systems, which are permanently installed into the buildings or infrastructure. |
| EN EPD | EPD of construction or manufactured products or construction services in accordance with requirements defined in EN 15804+A2:2019, including use of characterization factors published by European Commission JRC |
| French EPD  | Independently verified EPD that is created for compliance with French decree of 14 December 2021 for EPDs. Such EPDs must always follow the requirements applicable for French EPDs. |
| ISO EPD | EPD of construction or manufactured product or construction services in accordance with requirements defined in ISO 21930:2017, including use of characterization factors used outside EU Internal Market, e.g., in the North America |
| CFP declaration | third party verified declaration of a partial carbon footprint or carbon footprint of a product calculated in accordance with requirements defined in EN ISO 14067:2018. |

3 General aspects

3.1 Objectives of the PCR

The objective of the EPD program, and the PCR is to expand transparency and availability of environmental information to understand impacts and to make justified choices.

The objectives of the EPD program and the PCR include the following:


- Provide technical rules and guidance for the creation of EPDs and CFPs based on LCA data to ensure compliance with targeted standards.
- Providing LCA information, predominantly for business-to-business communication. Same data, however, can be accessed by consumers.
- To comply with EN 15804+A2:2019 and ISO 21930:2017 and EN ISO 14067.
- To fulfill the requirements of ISO 14025 and ISO 14044.
- Allow for better comparability between different EPDs.
- Allow the publishing of French EPDs for French market regulatory needs.

Further details as defined in EN 15804+A2:2019 (5.1), ISO 21930:2017 (5.1) and EN ISO 14067:2018 (6.2). In addition, this PCR provides additional requirements and other relevant provisions under the EPD & CFP PCR program managed and owned by EPD Hub.

3.2 Types of EPD, related standards and life cycle stages covered

As defined in EN 15804+A2:2019 (5.2), ISO 21930:2017 (5.2.1, 5.2.2) and EN ISO 14067:2018 (5.2). In addition, this PCR provides additional requirements and other relevant provisions for different types of EPDs or CFPs. More information on these is provided in the GPI. Please note that EEE products are always required to declare the use stage B.

EPD types based on EN 15804 standards:

| Type | Modules | Recommended market | Main standard |
|--|-----------------------------------|--|---|
| EN EPD (cradle to gate) | A1-A3 | EU, only specific products | EN 15804+A2:2019 |
| EN EPD (cradle to gate with options and end of life) | A1-A3, C1-C4, D. Options allowed. | EU Internal Market | EN 15804+A2:2019 or EN 50693:2019 |
| EN EPD (cradle to grave) | A, B, C and D | EU Internal Market | EN 15804+A2:2019 or EN 50693:2019 |
| French EPD  | A, B, C and D | France, only regulatory product categories | NF EN 15804+A2:2019 and national complement |

The use of a cradle to gate EPDs for EN EPD type is limited by the provisions set out in the EN 15804+A2:2019 and EN 50693:2019.

If an EPD is created in line with EN 50693:2019, the EPD must follow the impact categories and characterizations of EN 15804+A2:2019, and the EPD must use the modular structure and other provisions of the Annex D “Correlation with EN 15804 standard”.

EPD types based on ISO standards:

| Type | Modules | Recommended market | Standard |
|---|-----------------------------------|--|-------------------|
| ISO EPD (cradle to gate) | A1-A3 | Outside the EU | ISO 21930:2017 |
| ISO EPD (cradle to gate with options and end of life) | A1-A3, C1-C4, D. Options allowed. | Outside the EU | ISO 21930:2017 |
| CFP declaration (cradle to gate) | A1-A3 | Global | EN ISO 14067:2018 |
| CFP declaration (cradle to gate with options) | A1-A3. Options allowed. | Global. Recommended for non-construction uses. | EN ISO 14067:2018 |

NOTE: Options can include any or all of the following information modules: A4, A5, B1-B5 and B6-B7.

3.3 Comparability based on modularity and disclaimers

As defined in EN 15804+A2:2019 (5.3), ISO 21930:2017 (5.3, 5.4, 5.5), EN ISO 14067:2018 (5.6, 5.7, 5.8; 5.9, 5.10).

Comparing EPDs at a product level should be avoided and cannot be done unless they follow similar calculation procedures, scenarios, and assumptions, and belong to the same EPD program.

EN EPDs must carry this disclaimer: “EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.”

3.4 Rules for averaged and similar products

Rules for averaged and similar products are provided in the General Program Instructions (Annex I: Rules for averaging and aggregating EPDs).

3.5 Additional environmental information

As defined in EN 15804+A2:2019 (5.4), ISO 21930:2017 (8.3), EN ISO 14067:2018 (6.3.4.1) any carbon offset processes in order to compensate any LCA-based environmental indicators are excluded from the EPD or CFP results.

In addition, non-LCA-based environmental information on emissions to indoor air, soil and water during the use (module B1) of the product shall not be included in the EPD.

3.6 Packaging assessment and biogenic carbon in packaging

In this PCR, environmental aspects and impacts resulting from packaging can be excluded, as they can be conservatively assumed to be less than 5% of GWP-total in the cradle to gate modules (A1-A3). However, if they are included in the product stage, they shall be included in module A3, and their end-of-life impacts shall be declared at the latest in modules C3-C4; but preferably they should be declared in module A5.

If the biogenic carbon content in packaging is more than 5% of total packaging weight, it needs to be declared in the study as defined in EN 15804+A2:2019 (6.4.4) as kg of C.

If packaging materials contain biogenic carbon materials more than 5% of the weight of packaging, and/or are assigned to the module A3 as removal of kg CO₂e in the GWP-biogenic indicator, the biogenic carbon of these packaging materials shall be accounted for as positive emissions in cases where they would be released to the atmosphere or transferred across the system boundary, and assigned at the latest to the modules C3-C4; but preferably to module A5. This release shall be declared in kg CO₂e for GWP-biogenic.

3.7 Capital goods, equipment and machinery

In this PCR, environmental impacts of capital goods, equipment and machinery can be excluded according to the criteria for exclusion of inputs and outputs (see 4.3.5). Otherwise, the impacts related to these must be included in the EPD.

Following processes and products have a significant share (higher than allowed by the cut-off) of their emissions coming from capital goods

1. Forestry
2. Quarrying
3. Local energy production (solar PV, wind turbines)

3.8 Summary of the specific rules applicable for French EPDs

For French EPDs as mentioned in this PCR, the EPDs shall follow French decree of 14 December 2021 for EPD (EN ISO 14044:2006. +A2:2020 according to the more specific rules defined in NF EN 15804+A2:2019 either the standards NF C08-100-1 : 2022-06 et NF E 38-500 : 2022-09, either the standards NF C08-100-1 : 2022-06 et EN 50693 : 2019-08, or any equivalent standard., ISO 21930:2017 and, EN ISO 14067:2018.


The final and governing version of the rules for the French EPDs are issued in the French language.

4 Methodology for quantification (PCR for LCA)

4.1 Product categories

This PCR is targeting the listed sectors, products and services.

This PCR requires choosing a target standard for alignment. The declarations can be created on any of these standard alignments: EN 15804+A2:2019 (EN EPD), EN 50693:2019 (EN EPD), ISO 21930:2017 (ISO EPD) and EN ISO 14067:2018 (CFP, for carbon footprint). These are available for sectors as follows.


| Sector | Eligible standards | For EPD types |
|---|---|----------------------|
| Construction product | EN 15804+A2:2019, ISO 21930:2017, ISO 14067:2018, EN 50693:2019 | EN EPD, ISO EPD, CFP |
| Electrical product | EN 15804+A2:2019, ISO 21930:2017, ISO 14067:2018, EN 50693:2019 | EN EPD, ISO EPD, CFP |
| Manufactured product | EN 15804+A2:2019, ISO 21930:2017, ISO 14067:2018 | EN EPD, ISO EPD, CFP |
| Processes, energy, and services | EN 15804+A2:2019, ISO 21930:2017, ISO 14067:2018 | EN EPD, ISO EPD, CFP |
| Products governed by French regulations  | NF EN 15804+A2:2019, ISO 21930:2017, ISO 14067:2018, either the standards NF C08-100-1 : 2022-06 et NF E 38-500 : 2022-09, either the standards NF C08-100-1 : 2022-06 et EN 50693 : 2019-08, or any equivalent standard. | French EPD |

Definitions for the sectors:

- Construction products: manufactured for the purpose of being incorporated into a building or other construction works
- Electrical products: composed of electronic components (circuit boards, printed wiring boards etc.) and powered by electricity
- Manufactured product: products which have been made for medium to long term use through a manufacturing process (excluding construction and electrical products)
- Processes, energy and services: processes for which the end product is an treatment of a physical good (such as welding, cutting, thermal treatment, coating, or similar), a non-physical unit of energy ready for being transmitted to an end user or has been transmitted to an end user through conduction, or supply of any services, including construction and maintenance services, such as equipment rental, building or road maintenance.

4.2 Life cycle stages and their information modules to be included

As defined in EN 15804+A2:2019 (6.2), ISO 21930:2017 (7.1.1), EN ISO 14067:2018 (6.1, 6.3.2). In addition, construction stage modules (A4 and A5) and use stage modules (B1-B7) are optional. Furthermore, end-life-stage modules (C1-C4) and net benefits beyond the system boundary module (D) may be excluded in cradle to gate EPDs and CFPs. Scopes for all allowed EPD and CFP types are defined in section 3.2 of this PCR.

 Modules A, B, C and D are mandatory for French EPDs.

Use stage modules are mandatory for Electric and Electronic Equipment, including HVAC systems, which are permanently installed into the buildings or infrastructure.

4.3 Calculation rules for the LCA

4.3.1 LCA modelling and calculation

As defined in EN 15804+A2:2019 (6.3.1), ISO 21930:2017 (7.1.1), EN ISO 14067:2018 (6.3.1, 6.3.2).


LCA modelling and calculation of the environmental aspects and impacts in the construction sector aim for the assessment of the construction works, i.e., a building or civil engineering works. This is the main reason for the modular approach describing the life cycle of the construction works used in EPDs of construction products and services.

4.3.2 Declared unit

As defined in EN 15804+A2:2019 (6.3.3), ISO 21930:2017 (7.1.3), EN ISO 14067:2018 (6.3.3), EN 50693:2019 (4.2.2).


As declaring the full life cycle (A1-C4, D) is not mandatory in this PCR for all types of EPDs, the declared unit shall be applied in all EPDs as the default unit... If a specific EPD type or c-PCR is used, then the use of a functional unit, in addition to the declared unit, may be necessary as set out in the applicable rules.

In addition, moisture content relative to its dry weight shall be declared for bio-based (e.g., wood-based) products.

 The formats of functional units for each category of product for French EPDs are defined in Annex I of the order of December 14, 2021 relating to the environmental declaration of products intended for use in building works and the environmental declaration of products used to calculate the environmental performance of buildings.

4.3.3 Reference service life (RSL)

As defined in EN 15804+A2:2019 (6.3.4), ISO 21930:2017 (7.1.4), EN ISO 14067:2018 (6.3.7), EN 50693:2019 (4.2.2) in this PCR the declaration of Reference Service Life (RSL) is optional unless the use stage is declared, in which case the RSL is mandatory.

 For French EPDs, the reference service life of the construction or decoration product or equipment is mandatory to be declared on the EPD.

4.3.4 System boundaries

4.3.4.1 General

As defined in EN 15804+A2:2019 (6.3.5.1), ISO 21930:2017 (7.1.5, 7.1.6, 7.1.7), EN ISO 14067:2018 (6.3.4.1), EN 50693:2019 (4.2.3).

This PCR follows the following two principles:

1. The “modularity principle”, where the emissions created by specific processes are assigned to the life cycle modules in which they appear in.
2. The “polluter pays principle”, where the emissions coming from the processing of waste up until the end-of-waste state are assigned to the system in which the waste is generated.

In LCA the system boundary of the product system under assessment defines the unit processes to be included and excluded by physical and temporal means. System expansions are not used.

NOTE: In this PCR, system expansion is always forbidden, even when ISO 14067:2018 is used.

NOTE: In this PCR, applying a mass-balance approach to feedstock is always forbidden.

4.3.4.2 Product stage

As defined in EN 15804+A2:2019 (6.3.5.2), ISO 21930:2017 (7.1.7.2), EN ISO 14067:2018 (6.3.4.2, 6.4.9.4), EN 50693:2019 (4.2.4.2).

In manufacturing (A3), the dataset for electricity mix used at the production facility shall be chosen in the following order of priority:

1. When energy is generated on the production site or in its immediate vicinity specifically for the production site with a direct connection to the production site, the specific mix for the supply must be used.
2. Production site specific electricity supply mix if contracted to purchase only renewable electricity with Guarantees of Origin or a comparable instrument.
3. Production site specific electricity supply mix if contracted to purchase only zero-carbon electricity with proof of electricity supply.
4. Market average electricity mix for the location of production (country or state)

For clarity, for non-renewable or non-zero-carbon electricity supplies market average data must be used. For such an electricity supply use of a contract-specific mix is not allowed. For specific electricity mixes, manufacturers must demonstrate continued use of that supply.

Rules for packaging are detailed in 3.6 Packaging assessment and biogenic packaging.

NOTE: assessments aligned with ISO 14067 only may use provisions of ISO 6.4.9.4.4 instead.

4.3.4.3 End-of-life stage

As defined in EN 15804+A2:2019 (6.3.5.5), ISO 21930:2017 (7.1.7.5), EN 50693:2019 (4.2.4.7) in this PCR the end-of-life system boundary of the product system under study to the subsequent product system (module D) is set where the material outputs have reached their end-of-waste state.

NOTE: ISO 14067:2018 (6.3.8) does not define the end-of-waste state of the product under study. When this standard is used, the definitions of EN 15804/ISO 21930 shall be applied for end of life and end of life is divided between modules C and D.

4.3.4.4 Benefits and loads beyond the product system boundary

As defined in EN 15804+A2:2019 (6.3.5.6), ISO 21930:2017 (7.1.7.6) in this PCR any net benefits of the net flows that have passed the end-of-waste are included and calculated as potentially avoided impacts in the subsequent product system (module D)

 French EPDs follow annex L of the French national complement NF EN 15804+A2/CN.

NOTE:

1) see note in 4.3.4.3

2) In EN 50693:2019 potential loads and benefits are accounted for in the life cycle stage that they occur, so assessed end of life loads and impacts should be reported separately for each life cycle stage. However, for electrical products in this PCR the declaration of loads and benefits in Module D per EN 15804+A2:2019 may always be used and is required of electrical products which are installed in buildings.

4.3.5 Criteria for exclusion of inputs and outputs

As defined in EN 15804+A2:2019 (6.3.6), ISO 21930:2017 (7.1.8), EN ISO 14067:2018 (6.3.4.3), EN 50693:2019 (4.2.3.3) in this PCR cut-off rules for the product stage modules (A1...A3) and end-of-life stage modules (C1...C4) together is maximum of 5 % per module of energy and mass. For the renewable and non-renewable primary energy usage the cut-off rule is 1% and for the total mass input of that unit process the cut-off rule is 1%.

In addition, the cut-off rules may consider the environmental impacts of the excluded materials or processes if they are known to be significant and proportionately much higher than their share of mass or energy. The significance of environmental impacts of the excluded materials or processes may be considered as defined in ISO 14044 (4.3.3.4).

4.3.6 Selection of data and Mass Balance rules

As defined in EN 15804+A2:2019 (6.3.7), ISO 21930:2017 (7.1.9), EN ISO 14067:2018 (6.3.5), EN 50693:2019 (4.2.7.1).

Mass balance approach prohibition for Credit and Book and Claim Methods:

In this PCR using the following mass balance methods are always forbidden:

- A) Credit Method in which a manufacturer defines and maintains a credit account for each type of input reflecting the physical flows (with and without specified inherent properties) used as an output declaration, deducting from the credit account the respective credit of the output, up to the limit in, but not exceeding, the credit account within a balancing period, and therefore the output is not always reflecting the physical flows containing the set of defined characteristics.
- B) Book and Claim Method in which the bookkeeping record flow is not actually connected to the physical flow of material or product throughout the supply chain.

Conditional allowance for Rolling Average Percentage Method:

EN 15804+A2 allows however the Rolling Average Percentage Method for the Mass Balance Model that calculates the average value of the specified inherent property over one year timeframe, because it allows a claim of an average content of the specified inherent property to be made for the output over the same claim period reflecting the physical flows. If a publisher intends to use this method, the burden on proof is on the publisher to prove to the verifier how the inherent property was measured at input and output in order to calculate the rolling averages.

However, if a manufacturer is using e.g. material with higher recycled content differentiating from the normal annual average material input during the period of one year, manufacturer can use this inherent property for a separate declaration by deducting its input from the average one. This means that the Rolling Average Percentage Method is not applied into this specific input material.

In this PCR the requirements for data selection are as defined in pr EN 15941, are e.g., time related coverage (6.3), geographical coverage (6.4), technological coverage (6.5), precision (6.6), completeness (6.8), consistence (6.9), sources of the data (6.10), data quality at product level (7).

Rules for data selection and pre-verified tool use are set in the EPD Hub GPI (3.1, 3.2).

4.3.7 Data quality

As defined in EN 15804+A2:2019 (6.3.8), ISO 21930:2017 (7.1.9), EN ISO 14067:2018 (6.3.5), EN 50693:2019 (4.2.7.2).

4.3.8 Developing product level scenarios

As defined in EN 15804+A2:2019 (6.3.9), ISO 21930:2017 (7.1.7), EN ISO 14067:2018 (6.3.6, 6.3.7), EN 50693:2019 (4.3). In this PCR, A4-A5 and B1-B7 modules are optional.

4.3.9 Units

As defined in EN 15804+A2:2019 (6.3.10), ISO 21930:2017 (7.1.10).

4.4 Inventory analysis

4.4.1 Collecting data

As defined in EN 15804+A2:2019 (6.4.1), ISO 21930:2017 (7.2.1), EN ISO 14067:2018 (6.4.2).

 French EPDs shall follow French national complement NF EN 15804+A2/CN.

4.4.2 Calculation procedures

As defined in EN 15804+A2:2019 (6.4.2), ISO 21930:2017 (7.2.2), EN ISO 14067:2018 (6.4.3, 6.4.4, 6.4.5).

4.4.3 Allocation

4.4.3.1 General

As defined in EN 15804+A2:2019 (6.4.3.1), ISO 21930:2017 (7.2.5.1), EN ISO 14067:2018 (6.4.6.1).


4.4.3.2 Co-product allocation

As defined in ISO 21930:2017 (7.2.5.2), EN ISO 14067:2018 (6.4.6.2), EN 50693:2019 (4.2.51) in this PCR aspects and impacts are allocated between the products, co-products, and by-products in a way that it reflects the underlying physical relationships between them. This means that inputs and outputs of the shared unit processes in the manufacturing system are partitioned based on the relevant underlying physical relationship.

Economic allocation should be avoided as much as possible and used only where no relevant underlying physical relationships can be identified between inputs and different outputs,

e.g., because of changes in the material inherent properties, chemical composition, etc. during the manufacturing unit processes.

Allowed allocation methodology in background LCA datasets is set out in the EPD Hub GPI (3.2).

 The allocation of co-products for environmental declarations on the French market must be as defined in the national supplement to standard NF EN 15804+A2 (6.4.3 “Allocation of incoming flows and outgoing emissions”).

4.4.3.3 Allocation procedure for re-use, recycling and recovery (across the system boundary)

As defined in EN 15804+A2:2019 (6.4.3.3), ISO 21930:2017 (7.2.6) in this PCR any net benefits of the net flows that have passed the end-of-waste are included and calculated as potentially avoided impacts in the subsequent product system (module D). This also means that from that point forward no impacts are addressed anymore inside the life cycle of the product under study.

NOTE: For the potential loads and benefits of electrical products see note 2 in 4.3.4.3.

4.4.4 Information on biogenic carbon content

As defined in EN 15804+A2:2019 (6.4.4, 7.2.5), ISO 21930:2017 (7.2.12), EN ISO 14067:2018 (6.4.9.3, 6.4.9.8).

The biogenic carbon content (kg C) is required to be reported separately for both the product and the packaging. The reporting of biogenic carbon content of the product can be excluded if it constitutes less than 5 % of the total mass of the product and the reporting of the biogenic carbon content of the packaging can be excluded if it constitutes less than 5 % of the total mass of the packaging.

4.5 Impact assessment

4.5.1 General

As defined in EN 15804+A2:2019 (6.5.1), ISO 21930:2017 (7.3), EN ISO 14067:2018 (6.5.1), EN50693:2019 (4.4).

4.5.2 Core environmental impact indicators

As defined in EN 15804+A2:2019 (6.5.2, 7.2.3.1, Annex C) and ISO 21930:2017 (7.3, 7.2.7, 7.2.9, 7.2.11).

For French EPDs the main environmental impact indicators are mentioned in article 3 of the Order of December 14, 2021 relating to the environmental declaration of products intended for use in building works and to the environmental declaration of products used for the calculation of the environmental performance of buildings.

The uptake of biogenic carbon dioxide (removal of kg CO₂e from the atmosphere) declared in the impact indicator GWP-biogenic is required to be balanced when the product containing biogenic carbon is transferred to the next life cycle, or theoretically released back to the atmosphere. The amount of released biogenic carbon is to be assigned at the latest to the module C3 or C4. This information is required in all cases of materials containing biogenic carbon.

As EN ISO 14067:2018 (6.5.1, 6.5.2, 6.4.9.4, 6.4.9.5, 6.4.9.6) covers only impact indicators equivalent to GWP and its sub-categories, they can be used for CFP declarations. In this PCR, The GWP indicators of the CFP shall be defined according to the GWP indicators GWP-total, GWP-fossil, GWP-biogenic, and GWP-luluc of EN 15804+A2:2019 (Annex C). According to EN ISO 14067:2018 (6.4.9.7), in some cases it is also required to include aircraft emissions happening during air transport in the CFP. These emissions are documented separately in the CFP report as additional information.

EPDs following EN 50693:2019 shall follow impact indicators and characterization factors from EN 15804+A2:2019 (6.5.2, 7.2.3.1, Annex C). See note in Annex B.1 of EN 50693:2019.

NOTE: In EN 15804:2012+A2:2019 it is defined that the unit for Eutrophication aquatic freshwater (EP-freshwater) shall be given in kg PO₄ eq, even though the reference “EUTREND model, Struijs et al., 2009b, as implemented in ReCiPe” defines the unit as kg P eq. This PCR uses the unit kg P eq. as it is the one defined in the reference. The usage of kg PO₄ eq. as the unit in EN 15804 is likely an error in the standard, but one which can be assumed to be corrected in a future version. To get EP-freshwater impacts in kg PO₄ eq. as required by EN 15804:2012+A2:2019, the results in kg P eq. need to be multiplied by a factor of 3.07.

4.5.3 Additional environmental impact indicators

As defined in EN 15804+A2:2019 (6.5.3, 7.2.3.2, Annex C), ISO 21930:2017 (8.2) in this PCR additional impact indicators may be optionally included in the EPD.

EPDs following EN 50693:2019 shall follow impact indicators and characterization factors from EN 15804+A2:2019 (6.5.3, 7.2.3.2, Annex C). See note in Annex B.1 of EN 50693:2019.

5 Content of the EPD

5.1 Declaration of general information

As defined in EN 15804+A2:2019 (7.1 d)), ISO 21930:2017 (9.2 d)).

As defined in EN 15804+A2:2019 (7.1 k)), ISO 21930:2017 (8.4.1) in this PCR a content of substances of very high concern (SVHC) according to the European Chemical Agency or regulated hazardous substances in the market area shall be declared, i.e., if the regulated limit value of the content is greater than 0,1%-weight in the product is exceeded.

As defined in EN 15804+A2:2019 (7.1 table 2), ISO 21930:2017 (9.2 table 2) in this PCR a demonstration of verification shall be declared as part of the -tool produced declaration and individual declaration information.

5.2 Declaration of environmental information derived from LCA

5.2.1 General

As defined in EN 15804+A2:2019 (7.2.1), ISO 21930:2017 (9.5), EN ISO 14067:2018 (6.4.9.8), EN 50693:2019 (E.1).

5.2.2 Rules for declaring LCA information per module

As defined in EN 15804+A2:2019 (7.2.2), ISO 21930:2017 (9.5), EN 50693:2019 (E.2.4) except for electrical products which go in buildings which shall follow EN 15804+A2:2019 (7.2.2).

5.2.3 Indicators describing environmental impacts based on Life Cycle Impact Assessment (LCIA)

5.2.3.1 Core environmental impact indicators

As defined in 4.5.2 in this PCR.

5.2.3.2 Additional environmental impact indicators

As defined in 4.5.3 in this PCR.

5.2.3.3 Disclaimers to the environmental impact indicators

As defined in EN 15804+A2:2019 (7.2.3.3).

5.2.4 Indicators describing resource use and environmental information based on Life Cycle Inventory (LCI)

5.2.4.1 General

As defined in EN 15804+A2:2019 (7.2.4.1).

5.2.4.2 Indicators describing resource use

As defined in EN 15804+A2:2019 (7.2.4.2) and ISO 21930:2017 (7.2.10, 7.2.13), EPDs following EN 50693:2019 shall follow EN 15804+A2:2019 (7.2.4.2).

5.2.4.3 Environmental information describing waste categories

As defined in EN 15804+A2:2019 (7.2.4.3) and ISO 21930:2017 (7.2.14), EPDs following EN 50693:2019 shall follow EN 15804+A2:2019 (7.2.4.2).

5.2.4.4 Environmental information describing output flows

As defined in EN 15804+A2:2019 (7.2.4.4) and ISO 21930:2017 (7.2.14), EPDs following EN 50693:2019 shall follow EN 15804+A2:2019 (7.2.4.2).

5.2.5 Information on biogenic carbon content

As defined in 4.4.4 in this PCR.

5.3 Scenarios and additional technical information

5.3.1 General

As defined in EN 15804+A2:2019 (7.3.1) and ISO 21930:2017 (9.4.1), EN 50693:2019 (E.2.4).

The recommended way to declare indicator results for varying scenarios by building level designers is that manufacturers declare in their EPD as follows:

- impacts per km per each relevant means of transportation.
- impacts per each end-of-life treatment processes in the potential end use area.

NOTE: Experts calculating the final environmental impact of the building will need to consider the local conditions in order to obtain the results of the building assessment.

5.3.2 Construction process stage

5.3.2.1 A4, Transport to the building site

As defined in EN 15804+A2:2019 (7.3.2.1) and ISO 21930:2017 (9.4.2), EN 50693:2019 (E.2.4). In this PCR these aspects and impacts are considered optional.

5.3.2.2 A5, Installation in the building

As defined in EN 15804+A2:2019 (7.3.2.2) and ISO 21930:2017 (9.4.3), EN 50693:2019 (E.2.4). In this PCR these aspects and impacts are considered optional.

Rules for packaging are detailed in *4.6 Packaging assessment and biogenic packaging*.

5.3.3 B1-B7 use stage

5.3.3.1 B1-B7 use stage

As defined in EN 15804+A2:2019 (7.3.3.1 and 7.3.3.3), ISO 21930:2017 (9.4.4 and 9.4.5) and EN ISO 14067:2018 (6.3.7), EN 50693:2019 (E.2.4).

In this PCR these aspects and impacts are considered optional, unless specifically otherwise set out below. If any modules in use stage are reported, the EPD has to describe the processes the modules cover.

Use stage modules are mandatory for Electric and Electronic Equipment, including HVAC systems, which are permanently installed into the buildings or infrastructure. For such products, the energy consumption shall be added into the EPD for direct and indirect energy consumption and the B6 shall be presented separately to let users of the EPD consider it.

The justified scenario shall be based either on a) regulatory norm or regulatory standard calculation method for the location of use, or b) industry standard use case for the specified product, unless other a more representative calculation method is available. Method of assessment shall be mentioned on the EPD.

5.3.3.2 Reference service life

As defined in EN 15804+A2:2019 (7.3.3.2) and ISO 21930:2017 (7.1.4, Annex A), EN 50693:2019 (E.2.4) in this PCR these aspects and impacts are considered optional.

5.3.4 End-of-life

As defined in EN 15804+A2:2019 (7.3.4) and ISO 21930:2017 (9.4.6, 7.2.14), EN 50693:2019 (E.2.4).

5.4 Additional information on release of substances to indoor air, soil and water during the use stage

In this PCR non-LCA based environmental information on emissions to indoor air, soil, and water during the use (including Module B1) of the product are excluded.

6 Project Report General

6.1 General

EPD Hub only accepts digitally generated project reports, as set out in the GPI (1.6, 1.8).

As defined in EN 15804+A2:2019 (8.1), ISO 21930:2017 (10.1) and EN ISO 14067:2018 (7.1), EN 50693:2019 (4.5.1).

6.2 LCA-related elements of the project report

As defined in EN 15804+A2:2019 (8.2), ISO 21930:2017 (10.2) and EN ISO 14067:2018 (7.2 and 7.3), EN 50693:2019 (4.5.2-4.5.4).

6.3 Documentation of additional information

As defined in EN 15804+A2:2019 (8.3), ISO 21930:2017 (10.4) and EN ISO 14067:2018 (7.4), EN 50693:2019 (4.5.5).

6.4 Data availability for verification

As defined in EN 15804+A2:2019 (8.4) and ISO 21930:2017 (10.5) in this PCR covering the third party verified declarations and any tools. For EPDs following EN50693:2019 as defined in EN 15804+A2:2019 (8.4).

7 Verification and validity

As defined in EN 15804+A2:2019 (9) and ISO 21930:2017 (11) in this PCR covering the third party verified declarations, including tools. For EPDs following EN50693:2019 as defined in EN 15804+A2:2019 (9).