PRODUCT CATEGORY RULES (PCR)
PUBLICATION DATE 2026-03-03

PROCESSED PAPER AND PAPERBOARD

PRODUCT CATEGORY CLASSIFICATION: UN CPC 3214, 32151

PCR 2010:14
VERSION 4.0.0

VALID UNTIL 2030-03-03

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PROCESSED PAPER AND PAPERBOARD

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1 INTRODUCTION

This document constitutes Product Category Rules (PCR) developed in the framework of the International EPD System: a programme for Environmental Product Declarations (EPD)[1] according to ISO 14025:2006, ISO 14040:2006, ISO 14044:2006, and product-specific standards, such as EN 15804 and ISO 21930 for construction products. EPDs are voluntary documents for a company or an industry association to present transparent, consistent, and verifiable information about the environmental performance of their products (goods or services).

The General Programme Instructions (GPI), publicly available on www.environdec.com, includes the rules for the overall administration and operation of the programme and the basic rules for developing EPDs registered in the programme. A PCR complements the GPI and the normative standards by providing specific rules, and guidelines for developing an EPD for one or more specific product categories (see Figure 1), thereby enabling the generation of consistent EPDs within a product category. A PCR should not repeat the rules and guidelines of the GPI, but include additions, specifications and deviations to the rules set in the GPI. As such, a PCR shall be used together with the GPI.

This PCR is a main PCR that may be complemented with one or several complementary PCR (c-PCR). If there is an applicable and valid c-PCR, it shall be used in case it has been valid for at least 90 days when the EPD is verified[2]. If it has been valid for less than 90 days, it is optional to use the c-PCR. The valid c-PCRs can be found on www.environdec.com.

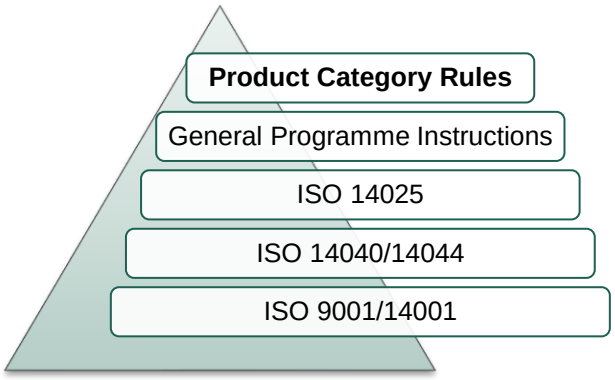

Figure 1. The hierarchy between PCRs, standards, and other documents.

The present PCR uses the following terminology:

- The term “shall” is used to indicate what is obligatory, i.e., a requirement.
- The term “should” is used to indicate a recommendation. Any deviation from a recommendation shall be justified in the EPD development process.
- The terms “may” or “can” are used to indicate an option that is permissible.

For definitions of other terms used in the document, see the GPI and normative standards.

Any references to this PCR shall include the PCR registration number, name, and version number.

The programme operator maintains the copyright of the PCR to ensure that it is possible to publish, update, and make it available to all organisations to develop and register EPDs. Stakeholders participating in PCR development should be acknowledged in the final document and on the website.

[1] Termed type III environmental declarations in ISO 14025.

[2] This does not apply when the EPD is re-verified during its validity, unless the validity period is extended.

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2 GENERAL INFORMATION

2.1 ADMINISTRATIVE INFORMATION

Name:	Processed paper and paperboard
Registration number and version:	PCR 2010:14, Version 4.0.0
Programme:	The International EPD System
Programme operator:	EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden. Website: www.environdec.com E-mail: support@environdec.com
PCR Moderator:	Mate Saric, IVL Swedish Environmental Institute on behalf of BillerudKorsnäs, mate.saric@ivl.se
PCR Committee:	BillerudKorsnäs, IVL Swedish Environmental Institute
Publication date:	2026-03-03 See Section 9 for a version history of the PCR.
Valid until:	2030-03-03 The validity may change. See www.environdec.com for the latest version of the PCR and the latest information on its validity and transition periods between versions.
Development and updates:	The PCR has been developed following ISO 14027, including public consultation and review. The rules for the development and updating processes are described in Section 9 of the GPI. The PCR is valid for a pre-determined time period to ensure that it is updated at regular intervals. When the PCR is about to expire, the PCR Moderator shall initiate a discussion with the Secretariat on if and how to proceed with updating the PCR and renewing its validity. A PCR may be updated before it expires, based on changes in normative standards or provided significant and well-justified proposals for changes or amendments are presented. When there has been an update of the PCR, the new version should be used to develop EPDs. For small updates (change of third-digit version number), the previous version is normally immediately removed from the PCR library on www.environdec.com and there is no transition period. For medium updates (change of second-digit version number), the previous version of the PCR is valid in parallel during a transition period of at least 90 days, but not exceeding its previously set validity period. For large updates (change of first-digit version number), the previous version is valid in parallel during a transition period of at least 180 days, but not exceeding its previously set validity period. Stakeholder feedback on PCRs is very much encouraged. Any comments on this PCR may be sent directly to the PCR Moderator and/or the Secretariat during its development or during its period of validity.

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Standards and documents conformance:	General Programme Instructions of the International EPD System, version 5.0.0, based on ISO 14025 and ISO 14040/14044.[3]
PCR language(s):	At the time of publication, this PCR was available in English. If the PCR is available in several languages, these are available on www.environdec.com. In case of translated versions, the English version takes precedence in case of any discrepancies.

2.2 SCOPE OF PCR

2.2.1 PRODUCT CATEGORY DEFINITION AND DESCRIPTION

This document provides Product Category Rules (PCR) for the assessment of the environmental performance of processed paper (including corrugated paper) and paperboard and the declaration of this performance by an EPD. The product category corresponds to UN CPC class 3214 and its sub-classes as well as sub-class 32151 as defined in the UN CPC system:

- Division: 32 - Pulp, paper and paper products; printed matter and related articles
  - Group: 321 - Pulp, paper and paperboard
    - Class 3214: Processed paper and paperboard
      - Sub-class 32141 - Composite paper and paperboard, not surface-coated or impregnated
      - Sub-class 32142 - Paper and paperboard, creped, crinkled, embossed or perforated n.e.c.
      - Sub-class 32143 - Paper and paperboard coated with kaolin or with other inorganic substances
      - Sub-class 32149 - Other paper and paperboard, cellulose wadding and webs of cellulose fibres, coated, impregnated, gummed or adhesive, covered, surface-coloured, surface decorated or printed, in rolls or sheets
    - Class 3215 Corrugated paper and paperboard and containers of paper and paperboard
      - Sub-class 32151 Corrugated paper and paperboard

The product group and CPC code shall be specified in the EPD. Additional information regarding CPC codes is available at https://unstats.un.org/unsd/classifications/Family/Detail/1074.

2.2.2 GEOGRAPHICAL SCOPE

This PCR maybe used globally.

2.2.3 EPD VALIDITY

An EPD becomes valid as of its version date (see Section 8.4.5 of the GPI). When an EPD is originally published, the validity period is normally five years starting from the version date or until the EPD has been de-registered from the International EPD System. Shorter validity periods are also accepted, for example if decided by the EPD owner.

[3] Some rules influencing EPD development are independent of the GPI version referred to in the PCR. For example, the latest rules on EPD verification procedures in the GPI shall be followed within 90 days of its publication. See Section 5.1 in the GPI for a description of the four categories of rules and when they shall be followed.

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For rules on when an EPD shall be updated and re-verified during its validity, see Section 6.8.1 of the GPI. For validity periods in case of updates of EPDs, see Section 6.8 of the GPI.

The version date and the period of validity shall be stated in the EPD.

Publication of a new version of the PCR or the GPI does not affect the validity of already published EPDs.

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3 REVIEW AND BACKGROUND INFORMATION

This PCR was developed in accordance with the PCR development process described in the GPI of the International EPD System, including open consultation and review.

3.1 OPEN CONSULTATION

3.1.1 VERSION 1.0.0

This PCR was available for open consultation from 2014-09-26 until 2010-02-01, during which any stakeholder was able to provide comments by posting on the PCR forum at www.environdec.com or by contacting the PCR moderator.
Stakeholders were invited via email or other means to take part in the open consultation and were encouraged to forward the invitation to other relevant stakeholders.

3.1.2 VERSION 2.0.0

This PCR was available for open consultation from 2014-09-26 until 2014-11-26, during which any stakeholder was able to provide comments by posting on the PCR forum at www.environdec.com or by contacting the PCR moderator.
Stakeholders were invited via email or other means to take part in the open consultation and were encouraged to forward the invitation to other relevant stakeholders.

The following stakeholders provided comments during the open consultation and agreed to be listed as contributors to the PCR and at www.environdec.com:

- IVL Swedish Environmental Research Institute
- Politecnico di Milano
- BillerudKorsnäs AB
- Lloyd's Register Quality Assurance Italy Srl

3.1.3 VERSION 3.0.0

This PCR was available for open consultation from 2020-04-03 until 2020-06-03, during which any stakeholder was able to provide comments by posting on the PCR forum at www.environdec.com or by contacting the PCR moderator.
Stakeholders were invited via email or other means to take part in the open consultation and were encouraged to forward the invitation to other relevant stakeholders.

None of the stakeholders provided comments during the open consultation.

3.1.4 VERSION 4.0.0

This PCR was available for open consultation from 2025-04-17 until 2025-06-12, during which any stakeholder was able to provide comments by posting on the PCR forum at www.environdec.com or by contacting the PCR moderator.
Stakeholders were invited via email or other means to take part in the open consultation and were encouraged to forward the invitation to other relevant stakeholders.

None of the stakeholders provided comments during the open consultation.

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3.2 PCR REVIEW

3.2.1 VERSION 1.0

Version 1.0 of the PCR was reviewed by the Technical Committee of the International EPD System.

3.2.2 VERSION 2.0

Version 1.0 of the PCR was reviewed by the Technical Committee of the International EPD System.

3.2.3 VERSION 3.0

PCR review panel:	The Technical Committee of the International EPD® System. A full list of members available on www.environdec.com. The review panel may be contacted via info@environdec.com. Members of the Technical Committee were requested to state any potential conflict of interest with the PCR moderator or PCR committee, and were excused from the review.
Chair of the PCR review:	Paola Borla
Review dates:	2020-07-03 until 2020-10-19

3.2.4 VERSION 4.0.0

PCR review panel:	The Technical Committee of the International EPD System. A full list of members is available on www.environdec.com. The review panel may be contacted via support@environdec.com. Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee, and if there were conflicts of interest they were excused from the review.
Chair of the PCR review:	Paola Borla
Review dates:	2025-06-07 until 2025-08-25

3.3 EXISTING PCRS FOR THE PRODUCT CATEGORY

As part of the development of this PCR, existing PCRs and other internationally standardised methods that could potentially act as PCRs were considered to avoid unnecessary overlaps in scope and to ensure harmonisation with established methods of relevance for the product category. The existence of such documents was checked among the following EPD programmes and international standardisation bodies:

- International EPD System. www.environdec.com.
- FP Innovations. https://web.fpinnovations.ca/
- SCS Global Services. https://www.scsglobalservices.com/
- PEF – Product Environmental Footprint. https://ec.europa.eu/environment/eussd/smgp/ef_pilots.htm

Table 1 lists the identified PCRs and other standardised methods.

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Table 1. Existing PCRs and other internationally standardised methods that were considered to avoid overlap in scope and to ensure harmonisation with established methods.

Name of PCR/standard, incl. registration number	Programme/standardisation body	Version number/date of publication	Scope
Product Category Rules for North American Market Pulp, Paper and Paperboard Products, Tissue, and Containerboard	FP Innovations	Project No. 301015007	UN CPC 32: Pulp, paper, and paper products; printed matter and related articles
Product Category Rule Module for Market Pulp and Paper Products	SCS Global Services	Version 1.0	Market pulp and paper products

3.4 REASONING FOR DEVELOPMENT OF PCR

This PCR was developed to enable publication of EPDs for the product category defined in Section 2.2.1 based on ISO 14025 and ISO 14040/14044. The PCR enables different practitioners to generate consistent results when assessing the environmental impact of products of the same product category, and thereby it supports comparability of products within a product category.

3.5 UNDERLYING STUDIES USED FOR PCR DEVELOPMENT

The methodological choices made during the development of this PCR (declared/functional unit, system boundary, allocation methods, impact categories, data quality rules, etc.) were primarily based on the following underlying studies:

- Billerud AB. (2024). *Environmental Product Declaration: NBSK*. The International EPD System. EPD Registration No. S-P-09450. Published 2024-06-28. Retrieved from https://www.environdec.com/ underlying studies were carried out for this update of the PCR.

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4 LCA METHOD

This section provides rules for the LCA method used to develop an EPD for the product category as defined in Section 2.2.1. The basic rules of the LCA method are set in Annex A of the GPI, and this section only includes additions, specifications and deviations to the rules set in the GPI. Guidance and examples of applying the LCA method are also available on www.environdec.com/methodology.

4.1 MODELLING APPROACH

See Section A.1 of the GPI.

4.2 DECLARED/FUNCTIONAL UNIT

The declared unit shall be one tonne (1000 kg) of finished product, excluding the packaging weight, defined at the gate of an average converter, merchant or distribution platform, alternatively defined at the factory gate. If the product is intended to be used as a form of packaging after further processing, guidance may be provided on how to translate the declared unit into a packaged volume and/or amount.

The declared unit shall be stated in the EPD. The environmental impact shall be given per declared unit. A description of the function of the product should be included in the EPD, if relevant.

4.2.1 TECHNICAL SPECIFICATION, LIFESPAN AND REFERENCE SERVICE LIFE (RSL)

RSL is not applicable for this product category because the use phase does not generate any emissions. The following technical specifications shall be specified along with the declared unit. Moisture content (in %) and (range in) grammage (in g/m^2) of the finished product.

4.3 SYSTEM BOUNDARY

The system boundary defined by this PCR shall be cradle-to-gate, with optional inclusion of Module A4 and Modules C and D.

In this PCR, the uptake and release of biogenic carbon shall not be included in the main impact results for Global Warming Potential (GWP) unless a complete life cycle perspective is considered. A 0/0 approach shall be applied if not all modules are included, meaning that biogenic carbon uptake in A modules and its release in C modules shall not be reported in the GWP impact categories.

To ensure transparency, the EPD will include a separate section for reporting biogenic carbon flows, allowing users to account for them as needed. This data may be used in product systems, organizational inventories, or other relevant reporting frameworks where applicable.

4.3.1 LIFE-CYCLE STAGES AND INFORMATION MODULES

The following life-cycle stages shall be reported:

- **Product stage, modules A1-A3:**
  - A1: Raw material extraction and processing (e.g., forestry operations), production of intermediate materials and components (e.g., including transformation processes such as rolling, drawing and extrusion), processing of secondary material input (e.g., recycling processes), production of distribution and consumer packaging, etc.
  - A2: Transport to the manufacturer of the product
  - A3: Manufacturing of the product4

The following life-cycle stages may be reported:

- **Transport and storage modules A4:**

[4] These are often, but not always, the processes under operational control of the EPD owner.

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- A4: Transport of the product to the user, including storage of the product at the retailer's premises when applicable.

The following life-cycle stages may be reported:

- **End-of-life stage, modules C1-C4:**
  - C2: Transport to waste processing and/or disposal
  - C3: Waste processing for reuse, recovery and/or recycling
  - C4: Disposal

In addition, consequences of recovered material/energy beyond the product cycle shall be reported in module D, if C modules are declared.

In the EPD, the environmental performance of each of the life-cycle stages and module D shall be reported separately.

Section A.3.1 of the GPI outlines rules for how to assign generation of electricity and production of fuels, steam and other energy carriers used, and losses arising, in each information module.

4.3.1.1 Modules A1-A3: Product stage

- Module A1:
  - Forestry activities which include:
    - Production of plants, seeds or cuttings for cultivation, silviculture (soil preparation, planting, cleaning and fertilisation), logging (thinning/final felling and harvesting of biomass), and internal transports. The cradle is soil preparation. Changes in soil carbon or any other biogenic carbon sinks due to the forestry system shall not be included within the scope of this PCR.
    - Production of materials and substances used in forestry (fertilisers, pesticides, cleaning chemicals, barriers to protect seedlings, etc).
    - Production of energy wares used in forestry.
    - Construction and maintenance of roads dedicated to forestry.
  - Maintenance of machinery and equipment (e.g. forwarders) dedicated to forestry,Material Inputs
    - Production of pigments, additives and other chemicals used in the core processes.
  - Production of other raw materials used in the core processes.
  - Production of packaging used for transport of the raw materials to the core processes.
  - Production of purchased pulp
  - Recycling process of purchased recycled paper
  - Generation of electricity and production of fuels used in the core processes.

Other upstream processes not listed may also be included. All elementary flows at resource extraction shall be included, except for the flows that fall under the general cut-off rule in Section 4.5.

- Module A2:
  - Inbound transportation to the manufacturing processes.
- Module A3:
  - Production of pulp (if produced internally).
  - Production of paper and paperboard.
  - Embossing, impregnation, printing and pigment coating of paper and paperboard (if relevant).
  - Cutting and packing of paper and paperboard (if relevant).
  - Treatment of waste generated from the production processes.
  - Production of auxiliary products used in the core processes such as detergents for cleaning, etc.

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Manufacturing processes not listed may also be included. The production of the raw materials used for production of all product parts shall be included. A minimum of 99% of the total weight of the declared product including packaging shall be included.

For the A1-A3 modules, the following processes shall not be included:

- Manufacturing of production equipment, buildings and other capital goods.
- Business travel of personnel.
- Travel to and from work by personnel.
- Research and development activities.

4.3.1.2 Modules A4: Distribution

- Module A4:
  - Transportation and distribution from manufacturing gate to end customer.

    Note1: End-customer implies the final customer, in case there are multiple customers further downstream.

Processes not listed here may also be included. All elementary flows at resource extraction shall be included, except for the flows that fall under the general cut-off rule in Section 4.5.

4.3.1.3 Modules C1-C4: End-of-life stage

- Module C1:
  - Not relevant
- Module C2:
  - Transportation from end-consumer to waste processing or disposal.
- Module C3:
  - Recycling processes
  - Incineration with energy recovery
- Module C4:
  - Landfilling
  - Incineration without energy recovery

Processes not listed here may also be included. All elementary flows at resource extraction shall be included, except for the flows that fall under the general cut-off rule in Section 4.5.

4.3.1.4 Module D

See Section A.7.5 of the GPI.

4.3.1.5 Excluded processes

See Section A.3.1.1 of the GPI.

4.3.2 OTHER BOUNDARY SETTING RULES

See Section A.3.2 of the GPI for rules on setting boundaries to nature as well as geographical and temporal boundaries. See Section A.4 of the GPI and Section 4.6 below for rules on setting boundaries to other product systems.

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4.4 PROCESS FLOW DIAGRAM

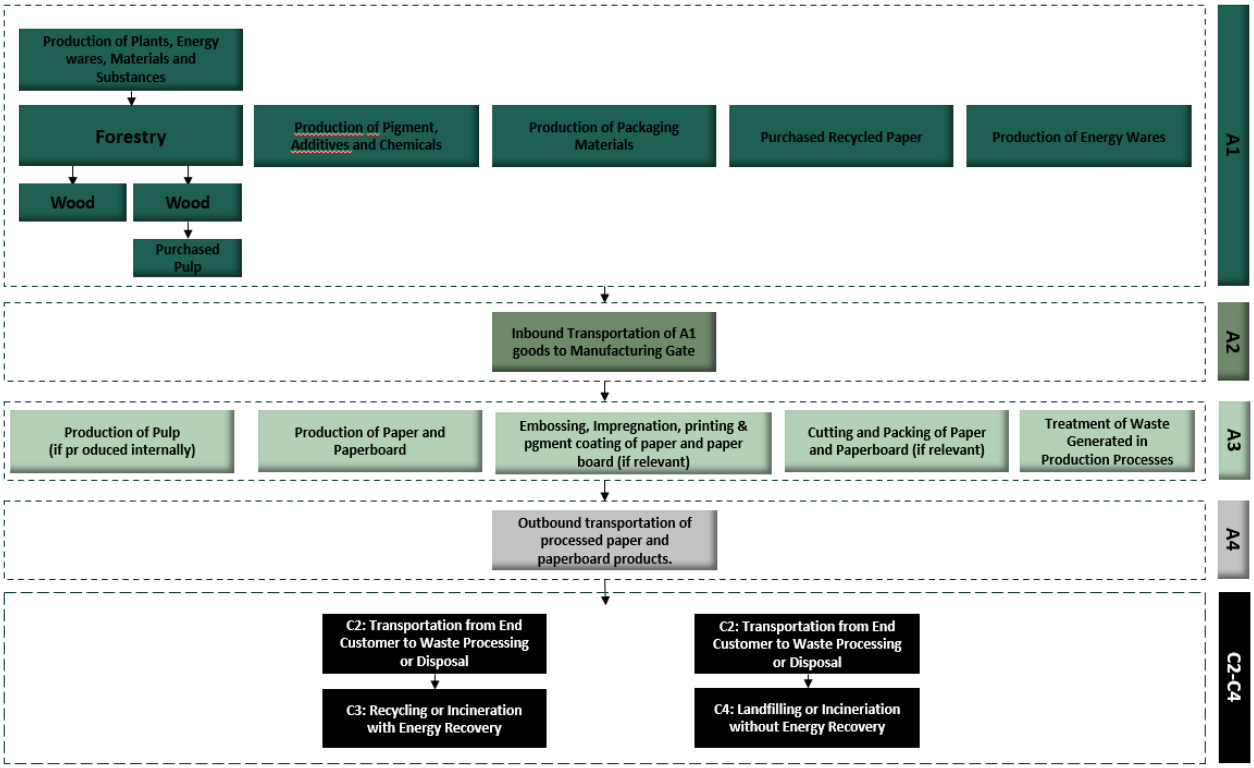

Figure 2. System diagram illustrating the processes that are included in the product system. Module C and D is optional and only required if declared. This is visually indicated by the broader dashed outline in the diagram. Note that pulp may either be purchased — in which case it is included in module A1 — or produced internally, in which case it is reported in module A3.

4.5 CUT-OFF RULES

See Section A.3.3 of the GPI.

4.6 ALLOCATION RULES

See Section A.4 of the GPI.

4.6.1 ALLOCATION OF CO-PRODUCTS

See Section A.4.1 of the GPI.

In addition, for kraft pulping process economic allocation shall be used. The table below provides guidance on how to perform the economic allocation for this process.

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Table 2. Allocation method for key processes in the product system.

Process	Main product and examples of co-products	Allocation method
Kraft Pulping Process	Main product, Crude Tall Oil (CTO), Tall Oil Soap, Turpentine, Others	Economic allocation based on revenue generated by the product and each co-product. Economic allocation should primarily rely on company-specific data for prices and production outputs. If industry averages are used instead, their selection shall be clearly justified. **Revenue Calculation:** Revenue = Price × Total Output • **Prices:** Company-specific pricing data from internal records should be used. If such data is unavailable, representative industry averages (e.g., trade databases or market reports) may serve as a fallback. • **Quantities:** Actual production outputs from the company, covering a representative period (e.g., 12 months), should be applied.

4.6.2 ALLOCATION OF WASTE

See Section A.4.2 of the GPI.

4.7 DATA AND DATA QUALITY RULES

See Section A.5 of the GPI.

See Section 4.8 for further rules related to data and data quality per life-cycle stage and module D.

4.7.1 DATA CATEGORIES

See Section A.5.1 of the GPI.

4.7.2 DATA QUALITY REQUIREMENTS FOR PRIMARY DATA

See Section A.5.2 of the GPI.

4.7.3 DATA QUALITY REQUIREMENTS FOR REPRESENTATIVE SECONDARY DATA

See Section A.5.3 of the GPI.

4.7.4 DATA QUALITY ASSESSMENT AND DECLARATION

See Section A.5.4 of the GPI.

4.7.5 EXAMPLES OF DATABASES FOR SECONDARY DATA

Table 3 lists examples of databases and datasets that may be used for secondary data. Note that a data quality assessment shall be performed also for data listed in the table, and that other data that fulfil the data quality requirements may also be used. It is recommended that consistent use of databases is maintained while modelling the system.

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Table 3. Examples of databases and datasets to use for secondary data. Other databases may be used (e.g. Ecoinvent or Sphera), even as these are not open access.

Process	Geographical scope	Dataset	Database
Miscellaneous	Europe	Miscellaneous	European Life Cycle Database (ELCD)
Production of packaging	Europe	Packaging production	FEFCO (European Federation of Corrugated Board and Manufacturers)
Production of plastics and chemicals	Europe	Production of plastics and chemicals	Plastics Europe
Forestry	Europe	Forest operations	Ecoinvent/Sphera

4.8 OTHER LCA RULES

See Section A.6 of the GPI.

For specific LCA rules per life-cycle stage, see Section 4.9.

4.8.1 MASS BALANCE

See Section A.6.1 of the GPI.

4.8.2 ELECTRICITY MODELLING

See Section A.6.2 of the GPI.

4.8.3 BIOGAS MODELLING

See Section A.6.3 of the GPI and Annex A in this PCR.

4.9 SPECIFIC RULES PER LIFE-CYCLE STAGE AND MODULE D

Companies shall account for the production of purchased pulp using supplier-specific life cycle inventory data. If such data is not available, companies may use modeled data derived from internal datasets, or datasets from other databases, provided that all regional or technological adjustments (e.g., energy system substitutions such as replacing Swedish with Finnish electricity mixes) are clearly documented and based on verifiable sources. All assumptions, data sources, and adjustment methodologies must be transparently recorded to enable third-party verification.

For additional requirements, see Section A.7 of the GPI.

Below are further data quality requirements and other LCA rules per life-cycle stage, and for module D, of relevance for the product category.

4.9.1 PRODUCT STAGE, A1-A3

Please refer to data quality definitions in GPI 5 section A.5.

4.9.2 DISTRIBUTION STAGE MODULES A4

- The type of transport and transport distance should be representative to actual conditions on the market for which the EPD is valid.
- The EPD may include the transport from manufacturer to an average converter, merchant or distribution platform. This transport, if included, shall be described in the LCA report, which should reflect the actual situation to the best extent possible. The following priority should be used:

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1. Actual transportation distances and types.
2. Calculated as the average distance of a product of that product type transported by different means of transport modes.
3. Calculated as a fixed long-distance transport, of 1 000 km transport by lorry.

4.9.3 END-OF-LIFE STAGE, MODULES C1-C4

- Waste management of transport packaging shall be included based on scenarios for the relevant market.
- The end-of-life stage, which is optional to include, should be estimated based on scenarios that represent current practices in the intended market.

4.9.4 CONSEQUENCES FOR RECOVERED MATERIAL/ENERGY BEYOND THE PRODUCT LIFE CYCLE (MODULE D)

This PCR does not provide any additions to the rules and guidance in the GPI on the modelling of module D.

4.10 ENVIRONMENTAL PERFORMANCE INDICATORS

See Section A.8 of the GPI.

For the Global Warming Potential (GWP) indicator, biogenic emissions and biogenic uptake shall be reported separately in accordance with the guidance provided in Annex A.

Impact category	Indicator	Unit
Global warming – fossil	GWP-fossil	kg CO_2 eq
Global warming – biogenic emissions	GWP-biogenic emissions	kg CO_2 eq
Global warming – biogenic uptake	GWP-biogenic uptake	kg CO_2 eq
Global warming – land use and land-use change	GWP-LULUC	kg CO_2 eq
Global warming – total	GWP-total	kg CO_2 eq

4.11 SPECIFIC RULES PER EPD TYPE

4.11.1 MULTIPLE PRODUCTS FROM THE SAME COMPANY

See Section A.9.1 of the GPI.

4.11.2 SECTOR EPD

See Section A.9.2 of the GPI.

4.11.3 EPD OWNED BY A TRADER

See Section A.9.3 of the GPI.

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4.11.4 EPD OF PRODUCT NOT YET ON THE MARKET

See Section A.9.4 of the GPI.

4.11.5 EPD OF PRODUCT RECENTLY ON THE MARKET

See Section A.9.5 of the GPI.

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5 CONTENT OF LCA REPORT

Data for verification shall be presented in the form of an LCA report – a systematic and comprehensive summary of the project documentation that supports the verification of an EPD. The LCA report is not part of the public communication.

See Section 8.3.1 of the GPI for rules on the content of the LCA report.

Note that there may be rules on the content of the LCA report elsewhere in the GPI or in this PCR.

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6 CONTENT AND FORMAT OF EPD

See Section 7 of the GPI.

6.1 EPD LANGUAGES

See Section 7.1 of the GPI.

6.2 UNITS AND QUANTITIES

See Section 7.2 of the GPI.

6.3 USE OF IMAGES IN EPD

See Section 7.3 of the GPI.

6.4 SECTIONS OF THE EPD

See Section 7.4 of the GPI.

6.4.1 COVER PAGE

See Section 7.4.1 of the GPI.

6.4.2 GENERAL INFORMATION

See Section 7.4.2 of the GPI.

6.4.3 INFORMATION ABOUT EPD OWNER

See Section 7.4.3 of the GPI.

6.4.4 PRODUCT INFORMATION

See Section 7.4.4 of the GPI.

6.4.5 CONTENT DECLARATION

See Section 7.4.5 of the GPI.

6.4.6 LCA INFORMATION

See Section 7.4.6 of the GPI.

6.4.7 ENVIRONMENTAL PERFORMANCE

See Section 7.4.7 of the GPI.

The EPD shall declare the environmental performance indicators listed or referred to in Section **Error! Reference source not found.**, per declared unit, per life-cycle stage and module D.

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6.4.8 ADDITIONAL ENVIRONMENTAL INFORMATION

See Section 7.4.8 of the GPI.

6.4.9 ADDITIONAL SOCIAL AND ECONOMIC INFORMATION

See Section 7.4.9 of the GPI.

6.4.10 INFORMATION RELATED TO SECTOR EPDS

See Section 7.4.10 of the GPI.

6.4.11 VERSION HISTORY

See Section 7.4.11 of the GPI.

6.4.12 ABBREVIATIONS

See Section 7.4.12 of the GPI.

6.4.13 REFERENCES

See Section 7.4.13 of the GPI.

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7 LIST OF ABBREVIATIONS

CPC	Central product classification
EPD	Environmental product declaration
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life cycle assessment
PCR	Product category rules
RSL	Reference service life
UN	United Nations

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8 REFERENCES

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

EPD International (2024) General Programme Instructions for the International EPD System. Version 5.0.1, dated 2024-06-19. Available on www.environdec.com.

ISO (2006a) ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures.

ISO (2006b) ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework.

ISO (2006c) ISO 14044: 2006, Environmental management – Life cycle assessment – Requirements and guidelines.

ISO (2015a) ISO 14001:2015, Environmental management systems – Requirements with guidance for use.

ISO (2015b) ISO 9001:2015, Quality management systems – Requirements.

ISO (2017) ISO 21930:2017, Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services.

ISO (2018) ISO/TS 14067:2018, Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication.

SCS Global Services (2016) *Product category rules for pulp and paper*. Version 1.0, dated 2016-10-18. Available at https://cdn.scsglobalservices.com/files/program_documents/pcr_final_pulp_paper_101816.pdf.

FP Innovations (2023) *Product Category Rules for North American Market Pulp, Paper and Paperboard Products, Tissue, and Containerboard*. Project No. 301015007, dated 2023-05. Scope: UN CPC 32 – Pulp, paper, and paper products; printed matter and related articles. Available at https://www.fibrebox.org/assets/2023/05/PCR_Final.pdf.

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9 VERSION HISTORY OF PCR

VERSION 1.0, 2010-07-07

Original document, developed in parallel to PCR 2010:15.

VERSION 1.1

- Changes in Section 11.3.1

VERSION 1.2

- New template used
- Date of validity extended to 2013-12-31
- Clarification of Figure 1
- Updated PCR Moderator contact information

VERSION 2.0, 2015-02-23

- Compliance with the latest general programme instructions
- Use of the latest PCR Basic Module
- Validity extended after new round of open consultation
- Updated PCR Moderator contact information
- Clarifications and editorial changes
- Possibility for similar products to be included in the same EPD added in the definition of the product group section
- Updating of the declared unit to clarify that the packaging shall be included
- Information on recycled materials added in the content of materials and chemical substances section
- Definition of the definition to be used in the economic allocation added
- Updating of data quality rules
- Updating of the generic databases to be used as source of generic data
- Net uptake of biogenic CO_2 removed as additional environmental information
- Alignment with ISO/TS 14067
- Relevant references added

VERSION 2.01, 2016-04-01

- Corrected validity date in Section 1 plus minor editorial changes

VERSION 3.0, 2020-11-18

- Compliance with the latest general programme instructions
- Added specifications for functional unit
- Modified system diagram and description of processes included
- Added environmental impact categories plus minor editorial changes

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VERSION 3.0.1, 2021-10-25

- New PCR moderator

VERSION 3.0.2, 2022-04-13

- Editorial changes in Sections **Error! Reference source not found.** to **Error! Reference source not found.**, to clarify that the indicator list at www.environdec.com applies also for the indicators of resource use, waste production and other output flows.

VERSION 3.1, 2022-07-06

- Expanded scope to also include UN CPC 32151 Corrugated paper and paperboard (previously covered by PCR 2013:07, which expired 2021-08-11).
- Minor editorial changes.

VERSION 3.1.1, 2024-10-31

Validity period was prolonged for one year until 2025-11-18.

VERSION 3.1.2, 2025-11-19

Validity period was prolonged for six months until 2026-05-18.

VERSION 4.0.0, 2026-03-03

- Updated to align with GPI 5.0 requirements. Significant portions of legacy PCR content were removed, as they are now covered by the GPI.
- Introduced provision allowing reporting of A-module results only, in cases where biogenic carbon emissions are accounted as 0/0 and no C-module is reported, to ensure consistency in biogenic carbon balance interpretation.

ANNEX A: BIOGENIC CARBON MODELLING GUIDANCE

Background system

A simplified approach shall be applied for modelling biogenic carbon in the background system. Only the emission "methane (biogenic)" shall be included. No other biogenic carbon exchanges (e.g. biogenic CO_2 emissions or uptake from the atmosphere) shall be modelled in the background system.

Foreground system

For separate accounting principles, in the foreground system, both biogenic CO_2 and biogenic CH_4 emissions shall be accounted for. All biogenic carbon flows arising from the product system, including externally purchased biofuels or other bio-based energy carriers, shall be modelled in the foreground system.

Global Warming Impact Category Disaggregation

To enhance transparency in biogenic carbon accounting, the biogenic component of the Global Warming impact category, which is typically reported as a net value combining uptake and emissions, shall be disaggregated so that biogenic emissions and biogenic uptake are reported separately in the EPD results.

Tracking and Reporting of Biogenic Carbon Flows

Practitioners should maintain separate inventories and reporting for:

- the biogenic carbon content associated with the product system itself, and
- other significant biogenic carbon sources or sinks, such as external biofuel consumption or other bio-based energy carriers used upstream or downstream.

These biogenic flows should be reported separately from the main GWP results, preferably in an annex or supplementary table, not in the main EPD results view. Results may be further disaggregated into:

1. Product-related biogenic carbon (e.g. carbon contained within the product), and
2. Other biogenic carbon flows (e.g. external biofuel combustion or other bio-based energy carriers).

Temporal and Modular Allocation of Biogenic Uptake

Biogenic CO_2 uptake shall be modelled in the A1 module (raw material supply), reflecting carbon uptake during biomass growth.

Modelling of Biogenic Uptake

Biogenic CO_2 uptake shall be quantified for the product system only, reflecting the amount of atmospheric CO_2 fixed in the biomass incorporated in the product, modelled in A1.

Biogenic CO_2 uptake = Pulp_mass × Pulp_dry% × Pulp_carbon share × (M_{CO_2} / M_C)

where:

- Pulp_mass = total pulp mass in product (kg)
- Pulp_dry% = dry-matter content (typically 93 %)
- Pulp_carbon share = carbon fraction of dry pulp (typically 44 %)
- (M_{CO_2} / M_C) = 3.664 (molecular-weight ratio CO_2/C)

This method links uptake activities strictly to the product's biomass content and excludes uptake from purchased bio-energy.

Typical carbon shares are often included in the metadata of life cycle databases such as ecoinvent; however, the applied values shall always be clearly documented, including their data sources. A dry-matter content of 93 % may be used as a standard value. If other values are used, these

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shall be explicitly stated and described, including the underlying assumptions or measurement basis. Pulp mass shall be based on dry density values (excluding moisture content), and the source of all input data, whether primary or from databases, shall be specified.

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PROCESSED PAPER AND PAPERBOARD

PRODUCT CATEGORY CLASSIFICATION: UN CPC 3214, 32151

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