

## NONWOVENS

PRODUCT CATEGORY CLASSIFICATION: UN CPC 27922.

*PCR REGISTRATION NUMBER TO BE ADDED BY THE SECRETARIAT  
VERSION NUMBER TO BE ADDED BY THE SECRETARIAT*

VALID UNTIL 20XX-YY-ZZ (TO BE ADDED BY THE SECRETARIAT)

*NOTE: THIS DOCUMENT IS A PCR TEMPLATE TO BE USED IN PCR DEVELOPMENT. IT IS NOT A PCR.*

A cover image of the PCR will be added by the Secretariat.

The PCR Committee may propose a cover image by submitting it to the Secretariat. The image shall be representative for the scope of the PCR, be of high resolution, and its use as cover image shall be approved by the copyright holder.

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## INTRODUCTION TO OPEN CONSULTATION

This draft PCR document is available for open consultation from 2026-02-20 until 2026-04-20. Feel free to forward the draft to any other stakeholder you might think is relevant, including colleagues and other organisations.

We are interested in comments from stakeholders on:

- General
  - Alignment with PCRs available in other programmes for type III environmental declarations, industry-specific LCA guidelines or similar.
- Scope of PCR
  - Product category definition and description
  - Classification of product category using CPC codes
- Goal and scope, life cycle inventory and life cycle impact assessment
  - Functional unit/declared unit
  - System boundary
  - Allocation rules
  - Data quality requirements
  - Recommended databases for generic data
  - Impact categories and impact assessment methodology
- Additional information

Comments shall be sent directly to the PCR Moderator (contact details available in Section 1). There is a template for comments on [www.environdec.com](http://www.environdec.com) that may be used.

For questions about the PCR, please contact the PCR moderator. For general questions about the International EPD System, EPD or PCR development, please contact the Secretariat via <https://www.environdec.com/support>.

PRODUCT CATEGORY RULES (PCR)

PUBLICATION DATE 20YY-MM-DD (TO BE ADDED BY THE SECRETARIAT)

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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)<sup>1</sup> 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.<sup>2</sup> 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](http://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 Error! Reference source not found.), 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.

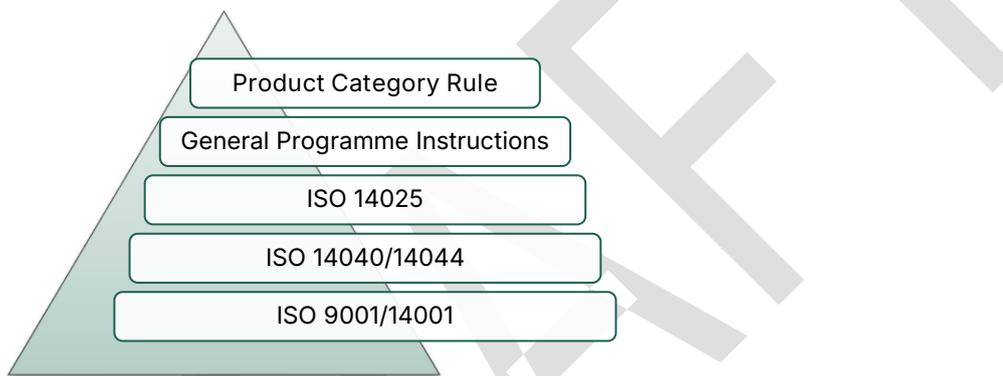


Figure 1 This PCR in relation to the hierarchy of standards and other documents.

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.

<sup>1</sup> Termed type III environmental declarations in ISO 14025.

<sup>2</sup> When standards are referred to in this document, the version listed in Section 8 is intended unless otherwise stated.

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## 2 GENERAL INFORMATION

### 2.1 ADMINISTRATIVE INFORMATION

Name:	Nonwovens
Registration number and version:	<i>To be added by the Secretariat</i>
Programme:	
Programme operator:	<p>EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden.</p> <p>Website: <a href="http://www.environdec.com">www.environdec.com</a>                      E-mail: <a href="mailto:support@environdec.com">support@environdec.com</a></p>
PCR Moderator:	Rawaa Ammar, EDANA, <a href="mailto:Rawaa.ammar@edana.org">Rawaa.ammar@edana.org</a>
PCR Committee:	AHLSTROM ; Freudenberg Filtration Technologies; Freudenberg Performance Materials; Hollingsworth & Vose; Johns Manville Europe; Nice Pak; Mann+Hummel; Neenah Gessner; Essity; EDANA; Saint-Gobain.
Publication date:	<p><i>To be added by the Secretariat</i></p> <p>See Section 9 for a version history of the PCR.</p>
Valid until:	<p><i>To be added by the Secretariat</i></p> <p>The validity may change. See <a href="http://www.environdec.com">www.environdec.com</a> for the latest version of the PCR and the latest information on its validity and transition periods between versions.</p>
Development and updates:	<p>The PCR has been developed following ISO/TK 14027, including public consultation and review. The rules for the development and updating processes are described in Section 9 of the GPI.</p> <p>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.</p> <p>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 <a href="http://www.environdec.com">www.environdec.com</a> 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.</p>

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	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.
Standards and documents conformance:	General Programme Instructions of the International EPD System, version 5.0.1, based on ISO 14025 and ISO 14040/14044. <sup>3</sup>
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 <a href="http://www.environdec.com">www.environdec.com</a> . 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 Nonwovens and the declaration of this performance by an EPD. The product category corresponds to UN CPC 27922 Nonwovens.

A nonwoven is defined as an engineered fibrous assembly, primarily planar, which has been given a designed level of structural integrity by physical and/or chemical means, excluding weaving, knitting or paper making (ISO 9092 2019-03). This PCR covers the intermediate product of Nonwovens, namely nonwoven material that could be used in downstream application such as filtration media, absorbent hygiene products, wet wipes, geosynthetics, automotive, medical devices, agricultural applications, garments and shoes.

The following shows where UN CPC 27922 belongs in the UN CPC hierarchy: Section 3: Other transportable goods, except metal products, machinery and equipment

- Division 27: Textiles
  - o Group 279: Other textiles
    - Class 2792: Nonwovens and articles of nonwovens
      - ◆ Subclass 27922: Nonwovens, whether or not impregnated, coated, covered or laminated

Products covered under this PCR may be composed of one or more of the following fiber types (non-exhaustive):

- Polypropylene (PP), polyethylene (PE), polyester (PET), lyocell, viscose, pulp, natural fibres, and bicomponent fibres
- Performance additives, binders, or finishes where relevant

This PCR applies exclusively to the cradle-to-gate stages of nonwoven production (raw material supply, fiber preparation, web formation, bonding, finishing, and packaging for shipment). It does not cover downstream converting processes, product assembly, distribution, use stage, or end-of-life management; these stages shall be addressed in application-specific PCRs (e.g., for absorbent hygiene products, wipes, filtration elements, medical devices, geotextiles, construction materials, etc.).

Typical nonwoven technologies covered include:

- Spunlaid processes (spunbond, meltblown, SMS and composites)
- Drylaid processes (carded, airlaid, needlepunch, thermal-bonded, chemical-bonded)
- Wetlaid processes
- Laminated or coated nonwovens, when the primary structure is a nonwoven web

Further information about the classification system is found on <https://unstats.un.org/unsd/classifications/Family/Detail/1074>.

<sup>3</sup> 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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## 2.2.2 GEOGRAPHICAL SCOPE

This PCR may be 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.

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

Version 1.0.0 of this PCR was available for open consultation from *date* until *date*, during which any stakeholder was able to provide comments by contacting the PCR Moderator and/or the Secretariat.

*Above dates shall be given in the following format: 20YY-MM-DD.*

*Add information about any physical or web-based meetings held during the open consultation, if applicable.*

Stakeholders were invited via e-mail 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 in the PCR and on [www.environdec.com](http://www.environdec.com):

- *List of stakeholder names and affiliation (to be added after the open consultation).*

*In case no stakeholders provided comments and agreed to be listed as contributors, the above sentence shall be adjusted accordingly ("No stakeholders provided comments during the open consultation and agreed to be listed as contributors in the PCR and on [www.environdec.com](http://www.environdec.com).") and the bullet list shall be removed.*

*In case of multiple major revisions of the PCR (1.0, 2.0, etc.), information about each open consultation should be added as sub-sections (3.2.1, 3.2.2, etc.).*

#### 3.2 PCR REVIEW

##### 3.2.1 VERSION 1.0.0

PCR review panel:	The Technical Committee of the International EPD System. A full list of members is available on <a href="http://www.environdec.com">www.environdec.com</a> . The review panel may be contacted via <a href="mailto:support@environdec.com">support@environdec.com</a> . 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:	<i>To be added by the Secretariat</i>
Review dates:	<i>To be added by the Secretariat</i>

*In case of multiple major revisions of the PCR (1.0, 2.0, etc.), information about each review should be added as sub-sections (3.1.1, 3.1.2, etc.).*

#### 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](http://www.environdec.com).

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- The EPD programmes of ECO Platform. [www.eco-platform.org/the-eco-epd-programs.html](http://www.eco-platform.org/the-eco-epd-programs.html).
- CEN. [www.en-standard.eu](http://www.en-standard.eu).
- ISO. [www.iso.org/standards.html](http://www.iso.org/standards.html).

Table 1 lists the identified PCRs and other standardised methods.

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
PCR 2016:06 Nonwoven wipes	EPD International	Version 2.0	<a href="#">Nonwoven wipes</a>
PCR 2011:06 Nonwovens for clothing, protective clothing and upholstery	EPD International	version 6.0	<a href="#">Nonwovens for clothing, protective clothing and upholstery</a>
PCR 2011:14 Being updated -Absorbent hygiene products	EPD International	version 3.0.4	<a href="#">Absorbent hygiene products</a>
EN 15804	CEN	15804:2012+A2:2019	<a href="#">Construction products and services in Europe</a>
PCR PART A: Construction products and services	EPD Norway	Version 2.0	<a href="#">Construction products and services</a>
NPCR 030:2021 Part B for ventilation components	EPD Norway	Version 1.0	PCR For ventilation components (including air filters) ( <a href="#">NPCR 030:2021 Part B for ventilation components (references to EN 15804 +A2) - EPD Norge</a> )
PCR 2024:05 Respiratory protection devices	EPD International	version 1.0.0	EPD owners that used the, meanwhile expired, PCR 2021:02 Air-conditioning machines are redirected to this PCR.
PCR 2019:14 Construction Products	EPD International	version 2.0.1	EPD owners that used the, meanwhile expired, PCR 2021:02 Air-conditioning machines are redirected to this PCR.

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Cleaning products, tools and chemicals (new PCR)	EPD International	Under development	
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### 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.

The PCR for Nonwovens is established for the following reasons:

- **Common production stage across diverse applications:**  
Nonwoven roll goods share a common set of manufacturing processes (e.g. fiber preparation, web formation, bonding, finishing), regardless of their final application. Existing PCRs for finished products (such as textiles, construction, cleaning tools, filtration, or geotextiles) do not fully capture the specificities of nonwoven production, leading to inconsistencies in how cradle-to-gate impacts are modelled across product categories.
- **Need for harmonized and comparable LCA parameters:**  
To ensure comparability and consistency, it is necessary to define common LCA rules and data quality requirements for the production of nonwovens. A dedicated PCR enables manufacturers to apply coherent and technically robust cradle-to-gate rules across all nonwoven substrates.
- **Foundation for downstream application PCRs:**  
This PCR focuses on the cradle-to-gate stages of nonwoven production. The rules set in this PCR can then be used as inputs to application-specific PCRs (e.g. AHP, wipes, filtration media, geotextiles), which cover the converting, use, and end-of-life stages. Establishing a harmonized production-stage PCR ensures that downstream EPDs built from these roll goods are consistent, comparable, and aligned with a common methodological foundation.

### 3.5 UNDERLYING STUDIES USED FOR PCR DEVELOPMENT

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

- EDANA (2010, updated 2013). Cradle-to-gate Life Cycle Inventory and Life Cycle Assessment of spunbond and SMS nonwovens produced in Europe. Internal industry LCA study commissioned by EDANA, critically reviewed according to ISO 14040/14044. EDANA
- EDANA (2010). LCA for Baby Wet Wipes – Executive Summary. EDANA, Brussels. Cradle-to-grave comparative LCA of baby wipes versus cotton wool balls and washable cloths, including habits-and-practices study for use-phase modelling. EDANA
- EDANA (2010). Industrial Wipes LCA – Executive Summary. EDANA, Brussels. Cradle-to-grave LCA comparing industrial nonwoven wipes with rental cloth systems. EDANA
- Cordella, M., Bauer, I., Lehmann, A., Schulz, M., & Wolf, O. (2015). Evolution of disposable baby diapers in Europe: Life cycle assessment of environmental impacts and identification of key areas of improvement. *Journal of Cleaner Production*, 95, 322–331. <https://doi.org/10.1016/j.jclepro.2015.02.040> ScienceDirect
- Joint Research Centre (JRC) (2022). LCA screening study on absorbent hygiene products – update April 2022. European Commission, Ispra/Seville. PEF-based screening LCA of baby diapers and sanitary towels to support the revision of EU Ecolabel criteria for AHPs. [susproc.jrc.ec.europa.eu](https://susproc.jrc.ec.europa.eu)
- Demichelis, F., Martina, C., Fino, D., Tommasi, T., & Deorsola, F. A. (2023). Life cycle assessment of absorbent hygiene product waste: Evaluation and comparison of different end-of-life scenarios. *Sustainable Production and Consumption*, 39, 1–13. <https://doi.org/10.1016/j.spc.2023.04.012> ScienceDirect
- Nagorny, A. (2024). Environmental assessment of nonwoven textile materials for single-use consumer wipes using Life Cycle Assessment. Bachelor’s thesis, LAB University of Applied Sciences, Finland. Theseus.

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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](http://www.environdec.com/methodology).

### 4.1 MODELLING APPROACH

See Section A.1 of the GPI.

### 4.2 DECLARED UNIT

This PCR defines the environmental performance of nonwovens using a declared unit, expressed in 1 m<sup>2</sup> of nonwoven material.

In addition to declaring results per the predefined declared unit, conversion factors may be declared, for users of the EPD to convert the declared results to results per mass, volume or another relevant unit representative of the product's relevant physical properties for the intended application. Such conversion factors may reflect e.g. basis weight, thickness or bulk density.

A functional unit is not prescribed at the PCR level because nonwovens serve a wide range of applications with fundamentally different performance requirements, making it neither feasible nor meaningful to define a single functional reference for all end uses.

#### 4.2.1 REFERENCE SERVICE LIFE (RSL)

No reference service life (RSL) is defined, considering a declared unit shall be used.

#### 4.2.2 PRODUCT LIFESPAN

No product lifespan is defined, considering a declared unit shall be used.

#### 4.2.3 TECHNICAL SPECIFICATION

Because this PCR covers intermediate nonwoven materials and not the converted end-use products, the technical specifications that determine performance vary significantly across applications (e.g., filtration, hygiene, wipes, geotextiles, medical, construction). For this reason, no single performance-based technical specification can be mandated at the PCR level.

However, to ensure transparency and enable appropriate interpretation of EPD results, manufacturers shall provide a basic technical description of the nonwoven material in the Product Information section of the EPD (see Section 6.4.4). This information shall include where relevant:

- Basis weight (g/m<sup>2</sup>)
- Thickness
- Fiber composition (e.g., PP, PET, viscose, pulp, blends)
- Production technology (e.g., spunbond, meltblown, SMS, airlaid, wetlaid, needlepunch)
- Mechanical properties (e.g., tensile strength, elongation) where necessary for interpretation
- Any functional treatments or finishes (e.g., coatings, laminations, impregnation)

These specifications are required to allow users of the EPD to understand the nature of the nonwoven and assess the relevance of the product for their downstream applications.

For finished products, the performance requirements and technical specifications will be defined in the application-specific PCR (e.g., AHP, wipes, medical devices, filtration elements, etc.) and reflected in the functional unit of those EPDs.

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See Section 6.4.4 for further rules on the declaration of technical specifications.

## 4.3 SYSTEM BOUNDARY

The scope of this PCR and EPDs based on it is *cradle-to-gate* (A1-A3, A4, A5).

Nonwovens may contain fossil and/or biogenic carbon depending on fibre composition and intended application. For this PCR, biogenic carbon uptake in the product system shall be set to zero by default (i.e., no carbon uptake/removal is credited in the material input flows for the nonwoven intermediate). If an EPD for a nonwoven intermediate is developed for use in a specific final product category governed by another relevant PCR (e.g., AHP/baby diapers), any biogenic carbon accounting and end-of-life modelling required by that final product PCR shall be applied at the final product level. Default reporting remains A1-A3 for cradle-to-gate where appropriate. A4/A5 can be included when relevant for the final EPD use case, and where data quality is sufficient. For more information on the setting of system boundaries, see Section A.3 of the GPI.

### 4.3.1 LIFE-CYCLE STAGES AND INFORMATION MODULES

Because of different data quality rules and the presentation of results, the product life cycle shall be divided into the following life-cycle stages and information modules:

- Product stage, modules A1-A3:
  - A1: Raw material extraction and processing (e.g., mining, agricultural and 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 associated with the nonwoven product at the manufacturing gate), etc.
  - A2: Transports to the manufacturer of the product
  - A3: Manufacturing of the product<sup>4</sup> including packaging operations at the manufacturing site (where applicable).
- Distribution and installation stage, modules A4-A5:
  - A4: B2B transport (converter/customer) Transport of the nonwoven product from the manufacturing site ("gate") to the next business customer (typically a converter) and associated intermediate storage/handling (e.g., warehousing), as applicable.
  - This PCR is intended primarily for B2B supply chains where the nonwoven is an intermediate input into a final product. Therefore, A4 shall represent B2B distribution to the next economic operator, not transport to an installation site or end-user.
- Installation stage, module A5: Packaging waste processing for nonwoven intermediate products.
  - Installation activities (including installation-site transport, installation losses,) occur at the level of the final product/application and shall be modelled under the relevant product-category PCR for that final product (e.g., absorbent hygiene products, building products, medical devices), where applicable. However, management of any packaging waste arising shall be modelled in A5.
- Use stage: Not applicable (NA) for nonwoven intermediate products and shall therefore be excluded from the system boundaries.

<sup>4</sup> These are often, but not always, the processes under operational control of the EPD owner. This PCR covers nonwoven roll goods manufactured from polymeric, cellulosic, glass fibers or blended fibers using established nonwoven production technologies. Nonwovens are engineered fibrous assemblies produced without weaving or knitting, typically formed through web-forming and bonding processes. They are supplied as sheets, rolls, or cut formats that are subsequently converted into a wide range of finished products.

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- End-of-life stage: Not applicable (NA) for nonwoven intermediate products and shall therefore be excluded from the system boundaries. For EPDs of final products in which the nonwoven is used, End-of-life modelling shall be addressed under the relevant PCR for the final product.

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.

Sections Error! Reference source not found.–Error! Reference source not found. further describe the processes to include or exclude for each life-cycle stage.

#### 4.3.1.1 Modules A1-A3: Product stage

- Module A1:
  - Extraction and refinement of natural resources (e.g. forestry, agriculture and extraction of oil)
  - Material preprocessing (e.g production of polymer, binders)
  - Production of filament/fiber materials (e.g. pulp, cotton and other fibres)
  - Processing of secondary material input if any (e.g., recycling processes)
  - Production of packaging
  - Production of electricity and fuels used in upstream processes (see Section 4.8.2 for rules on electricity modelling)
- Module A2:
  - Transportation of input materials to the production of nonwovens and packaging materials in module A3
- Module A3:
  - Production of nonwovens
  - Finishing such as lamination, coating etc
  - Production of packaging materials
  - Waste treatment of waste generated during manufacturing
  - Production of electricity and fuels used in core processes (see Section 4.8.2 for rules on electricity modelling)

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.

#### 4.3.1.2 Module A4-A5: Distribution stage and installation stage

- Module A4:
  - Transport of the nonwoven product from the manufacturing site ("gate") to the next business customer ("gate") and associated intermediate storage/handling (e.g., warehousing), as applicable.

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.

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 Excluded processes

See Section A.3.1.1 of the GPI. This PCR covers cradle to gate production of nonwovens and thus both use and end-of-life stages are excluded.

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4.3.1.4 Infrastructure and capital goods

See Section A.3.1.2 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 for rules on setting boundaries to other product systems.

4.4 PROCESS FLOW DIAGRAM

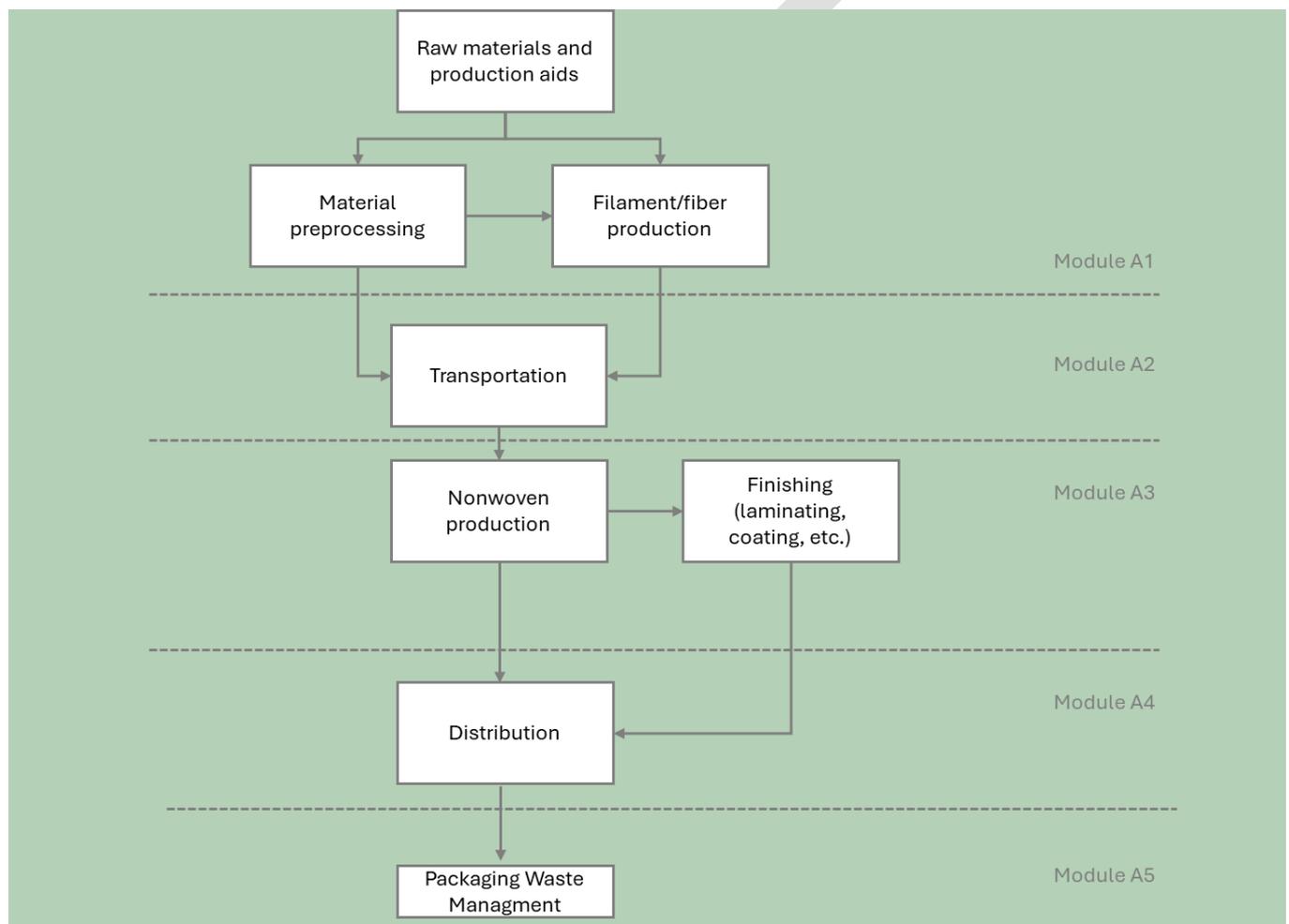


Figure 2. Process flow diagram illustrating the processes that shall be included in the product system, divided into the life-cycle stages. The illustration of processes to include may not be exhaustive. In some cases, the filament/fibre production can be an integrated process with the manufacturing of the nonwoven. In that case, this process unit can be considered part of Module A3. This should be clearly indicated in the EPD report.

4.5 CUT-OFF RULES

See Section A.3.3 of the GPI.

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## 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.

### 4.6.2 ALLOCATION OF WASTE

See Section A.4.2 of the GPI.

Additionally, recycled materials from a scrapyard where the origin is unknown (e.g., data/statistics on shares of post- and pre-consumer materials are missing for the specific scrapyard or the country of its location), shall be assumed to be waste and allocated accordingly, unless default data provided on [www.environdec.com/methodology](http://www.environdec.com/methodology) says otherwise. For consistency, scrap sent to a scrapyard shall be assumed to be waste and allocated accordingly, unless default data provided on [www.environdec.com/methodology](http://www.environdec.com/methodology) says otherwise.

## 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.

### 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.

Additionally, the reference year of the primary data shall not be more than five years old and shall be representative for the validity period of the EPD (if not, the EPD shall be updated, see Section 2.2.4). The reference year, which does not need to be a calendar year, is the latest year in which the data provider confirmed the data to be representative/valid, i.e., the end year for the most recently set validity period.<sup>5</sup> This means that primary LCI data can have been collected more than five years ago, but the representativeness/validity shall have been reassessed and confirmed by the data provider (the manufacturer/service provider) within the past five years.<sup>6</sup> In such reassessments, it may be that data is confirmed to be conservative compared to fully representative data, for example because it is known that the manufacturing process has improved (e.g., less material losses or lower energy use) but collected data from the past five years is missing. In such cases, the reference year can still be updated, and the data can still qualify as primary data. If this is done, it shall be described and justified in the LCA report.

### 4.7.3 DATA QUALITY REQUIREMENTS FOR REPRESENTATIVE SECONDARY DATA

See Section A.5.3 of the GPI.

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<sup>5</sup> This definition of "reference year" is a specification and merge of the definitions in EN 15804, EN 15941, ISO 21930 and in the ILCD format.

<sup>6</sup> This reassessment can, for example, be done based on collected metadata, such as information on the type of machinery being used in a manufacturing process. So it can be that some data (LCI and/or meta data) have been collected within five years, while some data are older than five years but has been confirmed to still be representative based on the more recently collected data. An example: the amount of electricity a machinery use and the emissions generated was measured seven years ago, but within the past five years the producer has confirmed the same machine is still in use and has provided updated data on the type of electricity used to run the machine.

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#### 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 2 lists examples of databases and datasets to 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.

Table 2. Examples of databases and datasets to use for secondary data.

Process	Geographical scope	Dataset	Database
Plastics	Global/ European		Plastics Europe <a href="http://www.plasticseurope.org">www.plasticseurope.org</a>
Transports	Global/ European		Ecoinvent v3.11 (or latest)
Waste management	European		European Reference Life Cycle Data System" (ELCD) <a href="http://lca.jrc.ec.europa.eu/">http://lca.jrc.ec.europa.eu/</a>
Energy mixes	Regional		Ecoinvent v3.11 (or latest)
Packaging	Global/ European		Ecoinvent v3.11 (or latest)

### 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.

The following requirement for contractual instruments in the GPI may not be possible to comply with in all markets for contractual instruments: "the contractual instrument shall ... be valid for at least the upcoming six months from the publication of the EPD." Therefore, it is replaced with the following: "is produced as close as possible to the period to which the contractual instrument is applied and comprises a corresponding timespan."

#### 4.8.3 BIOGAS MODELLING

See Section A.6.3 of the GPI.

### 4.9 SPECIFIC RULES PER LIFE-CYCLE STAGE

See Section A.7 of the GPI.

There are no further data quality requirements and other LCA rules per life-cycle stage provided in this PCR.

### 4.10 ENVIRONMENTAL PERFORMANCE INDICATORS

See Section A.8 of the GPI.

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## 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.

### 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.

The technical specifications relevant for interpreting the LCA results (such as basis weight, composition, thickness, production technology, surface treatments) shall be declared in the EPD report.

#### 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 4.10, per declared unit and per life-cycle stage.

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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

*Adjust and amend list according to the PCR. All abbreviations used in the PCR shall be listed. The abbreviations shall be provided in alphabetical order.*

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## 8 REFERENCES

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- 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 (2018b) ISO/TS 14067:2018, Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication.
- ISO 9092:2019 - Nonwovens — Vocabulary
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- Nagorny, A. (2024). Environmental assessment of nonwoven textile materials for single-use consumer wipes using Life Cycle Assessment. Bachelor's thesis, LAB University of Applied Sciences, Finland. Theseus

## 9 VERSION HISTORY OF PCR

*This section shall include a version history and the main differences compared to earlier versions of the PCR document.*

### VERSION 1.0.0, 20YY-MM-DD

*Add description of the PCR version, e.g. "Original version of the PCR".*

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