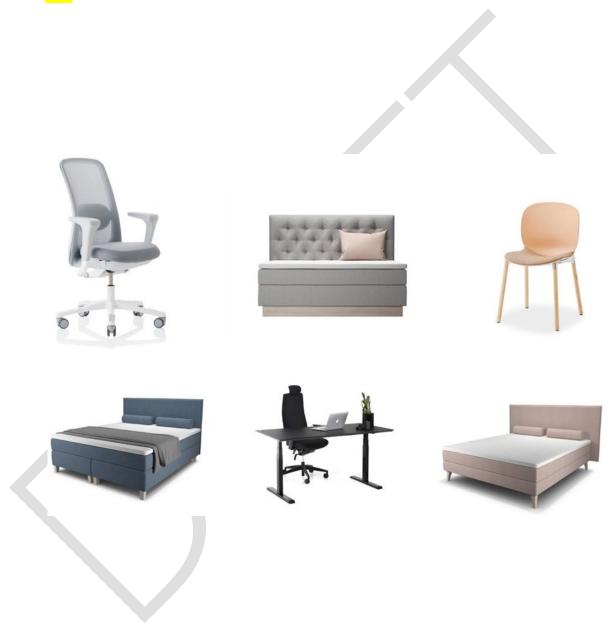


# NPCR O26 - Part B for Furniture and components of furniture (references to EN 15804+A2)

NPCR 026 - Version 3.0 (THIS IS A DRAFT)

Issue date: TBD Valid until: TBD





# **Revision Log**

This is an overview of the changes made to this PCR. Typology of changes:

- Editorial (ed): Text or layout edited, with no change in content.
- Technical (te): Existing content has been changed.
- Addendum (ad): New content has been added.

Naming convention: Version x.y, where x is a major revision and y is a minor revision.

Table 1 Overview of changes made to this PCR

Date	Туре	Description of change
(2018-10- 18)		
Version 1.0		
2018.10.18		First version of PCR for Furniture.
	te	This document replaces PCR 003:2015 Seating version 2.1 and PCR and 021:2012 Plate furniture
2022.09.29	ed	Editorial update according to EN15804:2012 + A2:2019
2023.10.17	te	Validity extended until 2024.07.01
2024.XX.XX	ad	Product categories expanded to include — electrically operated furniture and furniture with other electrical and electronic component and Outdoor playground and training equipment. Guidelines for making EPDs for furniture reuse are added.





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#### Introduction

These product category rules (PCR) are intended for companies preparing an environmental product declaration (EPD) for all types of furniture<sup>1,2,3</sup> and components thereof designed for domestic, non-domestic, educational, and professional use, for users of all ages (see chapter 6.1 for the definitions of product groups covered in this PCR).

This PCR complies with ISO14044: 2006, Environmental management – Life cycle assessment – Requirements and guidelines and ISO14025: 2006, Environmental management – Type III environmental declarations – Principles and procedures. Furniture is here seen in a building context and the PCR for furniture therefore consists of two parts. PCR part A are the common requirements for construction products and services. PCR part B are the requirements that are specific to furniture. When preparing an EPD for furniture, all requirements outlined in part A and part B must be followed. In PCR part B, the requirements for PCR part A are referred to in each section where they occur. The purpose of this document is to define clear guidelines for performing the underlying life cycle assessment (LCA) to ensure comparability between EPDs.

This PCR was developed in February 2018 by a Norwegian PCR work group (WG) with representatives from the furniture industry and with aid from Ostfold Research (Østfoldforskning), SINTEF Building and Infrastructure and the EPD program operator The Norwegian EPD Foundation. An editorial update was made by the secretariat according to EN15804:2012+A2:2019 in Q2:2022. An addendum update (see Error! Reference source not found.) was made in May 2024 with contributions from the members of the PCR working group (WG) listed below:

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<sup>1</sup> https://www.iso.org/committee/52448.html

<sup>&</sup>lt;sup>2</sup> NS-EN 97.140: International Classification for Standards ICS 97.140. Furniture. https://www.iso.org/ics/97.140/x/

<sup>&</sup>lt;sup>3</sup> As defined by Palma, R et al (2023)



# 1. Scope

This PCR complements the core PCR for construction products as defined in NS-EN 15804:2012+A2:2019+AC:2021 — hereafter referred to as EN 15804+A2 and NPCR Part A for construction products and services — hereafter referred to as PCR Part A. It is therefore intended to be used in conjunction with those standards.

The intended application of this product category rule (PCR) is to give guidelines for the development of environmental product declarations (EPD) for furniture and parts thereof. The types of EPDs for furniture are in accordance with section 5.2 of the EN 15804+A2 standard and are defined as follows:

- Cradle to gate with modules A4, C1-C4, and module D (A1-A3, A4, C, and D).
- Cardel to gate with options, modules A4, C1-C4, and module D (A1-A3, A4, C, D) and additional modules.
- Cradle to grave and module D (A, B, C, and D).

This PCR further specifies the underlying requirements of the life cycle assessment (LCA). The core rules valid for all construction products are given in EN 15804+A2 and PCR Part A.

#### 2. Normative references

As in PCR Part A and EN 15804+A2.

#### 3. Terms and definitions

As in PCR Part A.

#### 4. Abbreviations

As in PCR Part A and EN 15804+A2, with the following clarifications:

• RSL: Reference service life<sup>4</sup>

ESL: Estimated service life<sup>5</sup>

# 5. General Aspects

# 5.1 Objective of the PCR

As in NPCR Part A and includes the following clarifications:

The objective of this PCR (Part B) for furniture is to:

- define the mandatory parameters
- define how the mandatory parameters are to be collated and reported
- describe which stages of a product's life cycle are to be considered in the EPD, and which processes are to be included in the life cycle stages
- define rules for the development of scenarios, including the rules for calculating the life cycle inventory and the life cycle impact assessment underlying the EPD, including a specification of the data quality to be applied

<sup>&</sup>lt;sup>4</sup> RSL – is the service life of the furniture product that is expected under defined set of in-use conditions, and it forms the based for ESL under other use conditions. (Tellnes et al, 206)

<sup>&</sup>lt;sup>5</sup> ESL — is the maximum period of useful life as defined by the manufacturer. It is not the same as warranties or guarantees (Tellnes et al, 2016).



identify different types of EPD according to the life cycle stages covered

# 5.2 Types of EPDs in respect to life cycle stages covered

The EPDs for furniture follow the modules and life cycle stages in PCR Part A and EN 15804+A2. For the types of EPDs outlined in section 0, the following life cycle modules of the furniture product shall be declared:

- Cradle to gate with modules C1-C4 and module D (A1-A3, A4, C, and D) and Cradle to gate with options, modules C1-C4, and module D (A1-A3, A4, C, D) and additional modules:
  - Mandatory: Information modules A1 A3
  - Mandatory: Information modules A4
  - Optional: Information modules A5
  - Optional: Information modules B1-B7
  - Mandatory: Information modules C1-C4
  - Mandatory: Information module D

NOTE – following the ECO Platform LCA calculation rules and specifications for EPDs (2023), B1-B7 are mandatory for all Electrically operated furniture, including other furniture with electrical and electronic components (see section 6.1.10 for product description).

- Cradle to grave and module D (A, B, C, and D):
  - Mandatory: Information modules A1 A3
  - Mandatory: Information modules A4 A5
  - Mandatory: Information modules B1 B7
  - Mandatory: Information modules C1-C4
  - Mandatory: Information module D

# 5.3 Comparability of EPD of Furniture Products

Comparison of the environmental performance of furniture using EPD information shall be based on the product's ability to serve a function over a specified amount of time and shall consider the complete life cycle from cradle to grave. For comparability, EPDs of different products shall be calculated using the same basic assumptions and methodological choices, e.g., allocation, cut-off, scenarios, etc.

#### 5.4 Additional information

As in PCR Part A.

# 5.5 Ownership, responsibility, and liability for the EPD

As in PCR Part A.

#### 5.6 Communication format

As in PCR Part A.

# 6. Product Category Rules for LCA

As in PCR Part A.

### 6.1 Product Category

As in PCR Part A, including the following additions:



This PCR shall be used to make EPDs for furniture which refers to a free-standing or built-in unit whose primary function is to be used for the storage, placement or hanging of items and/or to provide surfaces where users can rest, sit, eat, study or work, whether for indoor or outdoor use (Palma et al, 2023). Moreover, Outdoor furniture and outdoor playground and training equipment are also covered by this PCR. See sections 6.1.1 - 6.1.11 for detailed description of categories of furniture covered by this PCR. The furniture is made for trade and may be made of different materials. Products that are similar to furniture and products with double functionality, but its main function is NOT furniture are outside the scope of this PCR. For example, lamps, Lumineers, stairs, etc.

# 6.1.1 Indoor seating

Indoor seating typically refers to seating arrangements or facilities within a building, such as restaurants, cafes, theaters, or offices, where customers, visitors, or employees can sit comfortably indoors. It includes chairs, benches, sofas, or any other furniture designed for sitting, arranged within the interior of a building for people to relax, dine, work, or socialize. Indoor seating for spectator facilities is therefore included. Indoor seating areas are usually climate-controlled and offer protection from outdoor elements like weather conditions.

#### 6.1.2 Indoor Tables

Furniture items designed for use within the interior of a building. They are flat surfaces supported by legs, a pedestal, or other structures, and are commonly used for various activities such as dining, working, studying, or socializing. Indoor tables come in a variety of shapes, sizes, and materials to suit different needs and aesthetics. They are often found in dining rooms, kitchens, living rooms, offices, and other indoor spaces where people gather or engage in activities that require a stable surface.

#### 6.1.3 Indoor storage

Indoor storage furniture refers to furniture pieces designed specifically to provide storage solutions for indoor spaces to help users effectively store and organize their belongings within their living or working areas. Examples include – Kitchen storage, bathroom storage, living room storage, bookshelves, dressers, wardrobes, cabinets, office storage, industrial storage, retail storage, laboratory storage, brochure stands and similar.

#### 6.1.4 Beds and Mattresses

Beds, single beds, double beds, mattresses, folding beds, bunk beds, high beds, adjustable beds, sofa beds, hospital beds and similar. Water beds and air beds are also included.

# 6.1.5 Children's and Nursery furniture

Specialized furniture designed specifically for babies, toddlers, and young children. These furniture pieces are tailored to meet the unique needs of young ones in terms of safety, comfort, and functionality. Examples include - Children's cots, folding cots, travel cots, suspended baby beds, playpens, folding playpens, cribs, cradles and similar.

# 6.1.6 Screens and sound absorbing elements, not included in PCR part B for building boards

Screens and sound absorbing elements used either for partitioning, sound absorption, or both. It includes desk screens, floor-standing screens, and interior acoustic products – as single objects, as furniture, or as part of furniture designed to absorb sounds indoors.

#### 6.1.7 Writing boards

These are free-standing or wall-mounted surfaces designed for writing, drawing, or displaying information using markers or other writing implements. Examples include – wall-mounted white/black boards, whiteboard stands, easel whiteboards, etc.



#### 6.1.8 Outdoor furniture

Furniture made especially to be used in outside locations, like patios, gardens, decks, and poolside spots. Examples include – patio sets, outdoor seating, outdoor tables, outdoor storage, umbrellas, and shade structures, etc. Outdoor seating for spectator facilities is covered by this PCR.

#### 6.1.9 Street furniture - seating, tables, and other relevant articles

These are urban elements and structures installed in public spaces, typically along streets, sidewalks, squares, parks, school and residential compounds, and other outdoor areas. They provide functions such as seating, shelter, information, and other amenities for pedestrians, cyclists, and other users of public spaces. Examples include – litterbins, planters, signage, bike racks, tree guards, bollards, fences, urban partitions, and gratings, etc.

# 6.1.10 Electrically operated furniture, including other furniture with electrical and electronic components

This includes furniture with electrified movements such as relaxation armchairs, adjustable desks/tables, motorized sofa beds, etc. Moreover, furniture without electrified movements but equipped with lighting or connectivity components. Examples include meeting pods, tables, sofas, etc. with light points and electrical sockets.

### 6.1.11 Outdoor playground and training equipment

This includes fixed structures fixed to the ground in outdoor recreational areas such as parks, schools, apartment complexes, and other public spaces in nature such as hiking trails. These structures are intended to encourage fitness, imaginative play for kids, and social relationships. They are constructed using materials like those used to manufacture everyday furniture, they are safe, and are long lasting. This category includes outdoor structures not classified in sections 6.1.8 and 6.1.9. Examples in this category include swings, climbing frames, seesaws, playhouses and forts, balance beams, sand pits, slides, vertical ladder and rope climbs, chinup and pull-up bars, fitness ladders, etc. etc.

# 6.2 Life cycle stages and their information modules to be included

#### 6.2.1 General

Guidelines for making EPDs for furniture reuse are outlined in section 6.2.2. System boundary for processes involved during reuse are detailed in Error! Reference source not found..

### 6.2.2 A1-A3, Product stage information modules

As in PCR part A, including the following clarifications:

Life cycle module A1, includes the production of surface treatments such as paint, wood coatings, water-based paint, oil-based paint, solvent-based paint, if applicable.

Furniture meant for reuse<sup>6</sup> must meet the end of waste status defined in point (1) of article 3 of the Directive 2008/98/EC<sup>7</sup> and it enters the new products system free of burdens. But all benefits and burdens associated with the new product systems are included in the calculation. The system boundary is described in Error! Reference source not found..

• A1, raw material supply – production of additional materials required to prepare reused furniture are included. For example, production of paint, upholstery, components, or parts of furniture, etc. It also

<sup>&</sup>lt;sup>6</sup> Furniture considered waste according to article 3 point 1 of the Directive 2008/98/ec of the European parliament

<sup>&</sup>lt;sup>7</sup> Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance)



includes all burdens associated with dismantling/disassembly of reuse are included. For example, use of electrical tools used for dismantling and sorting machine sorting. Manual soring has no burdens and is therefore excluded.

- A2, transport corresponds to transportation employed during collection and delivery of reuse furniture to the processing plant.
- A3, manufacturing corresponds to all benefits and burdens related to the preparation and/or reprocessing of Reuse furniture to restore its appearance and functionality.
- All following modules are calculated as defined in the respective sections of this PCR.

# 6.2.3 Module A4-A5, Construction/installation stage, life cycle information modules

As in PCR part A, including the following clarifications:

- A4, transport includes transportation of furniture to the place where it is to be used.
- A5, installation includes, if relevant, assembly and/or installation of declared product at the place of use. The installation phase includes all materials and activities connected to the installation of the furniture with the necessary accessories included (e.g., screws, fasteners, and adhesives etc.).

# 6.2.4 B1-B5, Use stage, life cycle information modules

As in part A, including the following clarifications:

The use stage shall include a scenario with the following:

- B1, use means use of the furniture in its proper condition (See Error! Reference source not found. for what is included).
- B2, maintenance refers to routine care and upkeep required to preserve the appearance, functionality, and durability of furniture during its RSL. Examples of maintenance activities include cleaning, applying protective treatments/coatings, etc.
- B3, repair repair involves restoration of furniture to a functional and aesthetically pleasing condition by addressing damage, wear, or deterioration that may have occurred over time during the RSL. They aim to extend the lifetime of the declared furniture. Repair activities include sanding, painting, change of components/parts or upholstery, etc.
- B4, replacement means replacement of a whole piece of furniture due to damage during the stated RSL. Replacement of a broken component of furniture or part should be included as repair. For example, if the RSL of a product is 15 years but the product got damaged after only 5 years, two replacements shall be needed during the stated RSL.
- B5, refurbishment involves comprehensive renovation or restoration of furniture to improve its overall condition, appearance, and functionality during the RSL. Unlike repair which addresses specific damage or issues, refurbishment aims to transform the furniture to a "new-like" or upgraded state. Refurbishment activities may include inspection, surface refinishing, upholstery replacement, structural reinforcement, component replacement, customization, etc.

# 6.2.5 B6-B7 Use stage, life cycle information modules related to operation

As in PCR part A, including the following clarifications:

- B6, Operational energy use includes for example furniture containing electrical and electronic components. The operational energy shall be declared for the whole lifetime of the furniture.
- B7, Operational water use includes water during the lifetime of the furniture. This is relevant for water beds. Water used and the number of replacement cycles shall be declared for the entire life of the waterbed.



#### 6.2.6 C1-C4, End-of-life stage, life cycle information modules

As in PCR part A, including the following clarifications:

- C1, de-construction/demolition includes the disassembly of the furniture. This shall be reported as zero in case of no disassembly or where the furniture is disassembled manually.
- C2, transport includes the transport of the furniture to final waste treatment.
- C3, waste process includes all activities regarding reuse, material recovery, materials for use in energy recovery processes with efficiencies > 60%, and/or recycling after transportation.
- C4, disposal includes disposal, i.e., waste handling by landfilling, incineration without energy recovery, and incineration with energy recovery with efficiency < 60%.

# **6.2.7** Module D, Benefits and loads beyond the system boundary, information module As in part A.

#### 6.3 Calculation rules for the LCA

#### 6.3.1 Functional unit Declared Unit

The functional unit for EPD Cradle to grave is defined as:

The production of one unit of the declared product provided and maintained throughout its reference service life (RSL).

The declared unit for EPDs covering cradle to gate with options is defined as:

One produced unit (1 pcs) of furniture ready to leave the factory gate.

Results shall be reported per functional unit and per life cycle module i.e., A1-A3, A4-A5, B1-B7, C1-C4, and D.

# 6.3.2 Reference service life (RSL), estimated service life (ESL), and intended use

As in PCR part A, with the following clarifications:

For EPDs that include the use stage (B1-B7), the following information shall be declared:

- ESL or RSL
- The in-use conditions or intended use that the ESL or RSL is based on.
- the methods/tests/standard (s) used to establish ESL, if ESL is used in the EPD.
- A statement saying that the service life of the product is an estimate of RSL is used in the EPD.

#### **EXAMPLE**:

An EPD of an indoor office chair with an ESL of 5 years based on standardized test X, declaring the full life cycle and module D would declare a functional unit of "1 piece of indoor seating used for 15 years". RSL of 15 years.

- Product stage (modules A1-A3): Manufacturing of one piece of office chair.
- Construction stage (A4-A5): Distribution and installation of one piece of office chair.
- Use stage (modules B1-B7): Manufacturing of two replacement office chairs (in B4) one after 5 years and a second one after 10 years, their distribution and installation, and end-of-life management of the two old office chairs.
- End-of-life stage (modules C1-C4): End-of life management of one office chair.



• Beyond the life cycle (module D): Benefits and loads beyond the system boundary due to e.g., reuse, recycling, or waste incineration with energy recovery in modules A4-A5, B1-B7, and C1-C4 (i.e., all three office chairs used during the 15-year period).

Table 2 Default RSL and ESL for different types of furniture

Type of furniture	Estimated Service Life (ESL)	Reference Service Life (RSL)
Indoor seating	Declared by producer and related to intended use (e.g., domestic, non-domestic)	15 years
Indoor tables	Declared by producer and related to intended use (e.g., domestic, non-domestic)	15 years
Indoor storage	Declared by producer and related to intended use (e.g., Domestic, non-domestic)	15 years
Beds and mattresses	Declared by producer and related to intended use (e.g., hotels, domestic)	15 years
Children's and nursery furniture	Declared by producer and related to intended use (e.g., nursery, domestic, schools)	15 years
Screens and sound absorbing elements	Declared by producer and related to intended use (e.g., office, domestic, schools)	15 years
Writing boards	Declared by producer and related to intended use (e.g., office, domestic, schools)	15 years
Outdoor furniture	Declared by producer and related to intended use (e.g., domestic, non-domestic)	15 years
Street furniture	Declared by producer (ref to documentation in bibliography)	30 years
Electrically operated furniture, including other furniture with electrical and electronic components	Declared by producer and related to intended use (e.g., office, schools, etc.)	15 years
Outdoor playground and training equipment	Declared by producer and related to intended use (e.g., parks, schools, etc.)	30 years

# 6.3.3 System boundary

As in PCR part A.

# 6.3.4 End-of-life stage

As in PCR part.

# 6.3.5 Criteria for the extension of inputs and outputs (cut-off)

As in PCR part A, including the following clarifications:

Surface treatments for furniture shall be included in the inventory even if it's less than 1%.

#### 6.3.6 Selection of data

As in PCR part A.

#### 6.3.6.1 Data for electricity

As in PCR part A.

# 6.3.6.2 Losses considered by different users and the installed voltage supplied

As in PCR part A.



# 6.3.7 Data quality requirements

As in PCR part A.

#### 6.3.8 Developing product level scenarios

As in PCR part A.

#### 6.3.8.1 Product stage

As in PCR part A.

# 6.3.8.2 A4 Transport from the factory gate to the customer

As in PCR part A.

#### 6.3.8.3 A5 Installation

As in PCR part A with the following additions:

All materials and activities connected to assembly and/or installation of the declared product. This is by default only manual labor. If the installation scenario for furniture deviates from the predefined scenarios, this shall be clearly stated and justified. Personnel activities and transport of personnel shall not be included. Environmental impacts from the production of capital goods shall also be excluded.

# 6.3.8.4 Use stage

As in PCR part A, including the following additions:

The system boundary for processes included in use stage be defined in accordance with section 6.3.5.4.2 of EN 15804+A2. See Error! Reference source not found, for specific guidelines.

Table 3 Use scenario description for all furniture categories

Categories of furniture	B1, Use	B2, Maintenance	B3, Repair	B4, Replacement	B5, Refurbishment	B6, Operational energy use	B7, Operational water use
Indoor seating Indoor tables Indoor storage Beds and mattresses Children's and nursery furniture Screens and sound absorbing elements Writing boards  Outdoor furniture  Street furniture  Electrically operated furniture, including other furniture with electrical and electronic components  Outdoor playground and training equipment	For furniture made with materials or substances that emit VOCs & HCHO in indoor environments (Sherzad & Chuloh, 2022). Such emissions shall be reported as additional information in the EPD (if measured a standardized method).	Production and transportation of ancillary materials necessary for maintenance e.g., detergents, water, & energy for cleaning and oils or varnishing or paints for surface treatments.  End-of-life treatment of waste generated during maintenance processes including transport of the waste to the waste treatment facilities e.g., wastewater & other wastes.	Collection, transport, and storage of furniture meant for repair.  Production of materials or components necessary and associated transport to the repair facility.  Energy and water use for repair.  End-of-life treatment of waste generated during repair including transportation of the waste to the waste treatment site.	Collection, transport, and storage of furniture meant for repair.  Production of components and ancillary materials are used for replacing.  Production and transport of the new furniture and packaging all impacts associated with replacement processes.  End-of-life treatment of the original furniture and wastes from replacement processes.	Collection, transport, and storage of furniture meant for refurbishment.  Production of materials or components necessary and associated transport to the refurbishment facility.  Energy and water use for repair.  End-of-life treatment of waste generated during refurbishment including transportation of the waste to the waste treatment site.	Operational energy for the entire ESL/RSL and the associated wastes. For example, waste batteries.	Where applicable, the production, transportation, and wastewater treatment during the operation of the furniture shall be included. E.g., water for waterbed shall be declared for the whole ESL/RSL



### 6.3.8.5 End of life stage

As in PCR part A.

# 6.3.8.6 Benefits and loads beyond the system boundary

As in PCR part A.

# 6.4 Inventory analysis

As in PCR part A. with the following additions:

Data quality assessment for electrical and/or electronic components incorporated in furniture (see section 6.1.10) shall conform to section 4.2.3.6 of ISO 14044 and EN 50693.

# 6.5 Impact assessment

As in PCR part A.

#### 7. Content of the EPD

# 7.1 Declaration of general information

As in EN 15804+A2 and PCR part A, with the following additions:

- Product description the following shall be declared under product description:
  - o Product name and image.
  - o When several furniture products have been declared in an average EPE, all the product variants shall be listed in the EPD by the manufacturer.
  - o A description of the products intended use. For example, office chair to provide comfortable and ergonomic seating for individuals working in office environments
- ESL or RSL. If the EPD is based on ESL, the methods/tests/standard (s) used to establish ESL shall be declared.
- Technical information such as product weight and a description of the in-use conditions used as basis for the stated ESL or RSL.
- Market where the product shall be distributed. For example, global, Nordics, Europe, etc.
- A table showing all material used to manufacture the declared product(s) including surface treatments such as varnish, oil, other coatings, etc.
- A description of the electrical and electronic component (s) incorporated into the declared furniture and the function it provides, if applicable.
- A table of selected "Key environmental indicators" from the general information page as shown in Table 4.



Table 4 Presentation of key environmental indicators

Key environmental performance		Product stage	Constru stag		Use stage							End-of-life				Net benefits and loads from reuse, recovery and/or recycling
indicators		A1-A3	A4	A5	B1	B2	В3	В4	B5	В6	В7	C1	C2	C3	C4	D
Global warming (GWP-total)	kg CO2 eq.															
Energy use <sup>8</sup>	MJ															
Use of secondary materials 9	%															
Other indicator (s), if desired	[unit]															

Note - for modules not declared in the EPD, a value of zero shall be used.

# 7.2 Declaration of environmental parameters derived from LCA

#### 7.2.1 General

As in PCR part A.

# 7.2.2 Rules for declaring LCA information per module

As in PCR part A with the following additions:

Results shall be reported for the whole product per declared functional/declared unit including electrical and electronic components.

Environmental impacts of the electrical and electronic components incorporated into the furniture may be reported separately as additional information, if relevant.

# **7.2.3** Indicators describing environmental impacts based on Life Cycle Impact Assessment (LCIA) As in PCR part A.

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

As in PCR part A.

#### 7.2.5 Information on biogenic carbon content

As in PCR part A.

#### 7.3 Scenarios and additional technical information

#### 7.3.1 General

As in PCR part A.

#### 7.3.2 Construction process stage

As in PCR part A.

# 7.3.2.1 A4, Transport from the production site to the construction site

As in PCR part A.

<sup>&</sup>lt;sup>8</sup> Energy demand by the product for the declared life cycle modules.

<sup>&</sup>lt;sup>9</sup> Percentage of recycled materials (post-consumer in the product excluding packaging.



#### 7.3.2.2 A5, Installation

As in PCR part A.

#### 7.3.3 Use stage

As in PCR part A with the following additions:

Maintenance, replacement, and other relevant modules shall be stated in the EPD. E.g., The use stage is represented by a scenario for each life cycle module, whereby the maintenance scenario includes energy use for vacuum cleaning textiles once a month.

For furniture where operational energy is applicable i.e., furniture in category 6.1.10, the environmental impacts due to energy use shall be reported for the entire lifetime of the furniture as referenced in the RSL or ESL.

#### 7.3.4 End of Life

As in PCR part A,

#### 7.3.5 Reuse, recovery, and recycling

As in PCR part A.

#### 7.4 Additional information

As in PCR part A.

Additional information about the furniture can be added in the "Product description field". This must be relevant, objective, and verifiable information.

This clause has a wider scope compared to other standards, and includes additional information not derived from LCA or information about product variations or markets. For example, a table that describes climate footprint for different models, emissions of substances such as volatile organic compounds (VOCs) in the use phase (B1) if measured using a standardized method shall be reported as additional information in the EPD, etc.

It is important to state in the EPD that any additional information on product variations cannot be considered as a full EPD since not all indicators are included.

# 7.5 Aggregation of information modules

As in PCR part A.

# 8. Project Report

As in PCR part A.

# 9. Verification and Validity of an EPD

As in PCR part A.



Approved TBD, valid until TBD

Norwegian EPD Foundation, Technical committee

Leader of the Technical committee

# 10. References

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