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Product Category Rule: LSP3-1

ISO 21930:2017

Sub Product Category Rule for Site Furnishings, CSI MasterFormat, Section 32 33 00

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P3 OPTIMA
People Planet Profits





Program Operators

The Subcategory Rule for Site Furnishings, CSI MasterFormat Section 32 33 00 was a collaboration between Labeling Sustainability and P3 Optima. The intent of this project was to develop a North American PCR for Site Furniture.

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Revision Log

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General Information

This Sub Product Category Rule (Sub PCR) shall be used to prepare Type III Environmental Product Declarations (EPDs) for site furnishings as categorized by the Construction Specifications Institute (CSI) MasterFormat section 32 33 00. Examples of the types of site furniture covered by this Section are detailed as subcategories:

32 33 13	Site Bicycle Racks
32 22 14	Site Bicycle Lockers
32 33 23	Site Trash and Litter Receptacles
32 33 33	Site Manufactured Planters
32 33 43	Site Seating and Tables
32 33 43 13	Site Seating
32 33 43 53	Site Tables (1)

This PCR includes the manufacture of the products constructed from singular or multiple materials including, but not limited to, the following: wood, metal, plastic, particleboard, medium-density fiberboard (MDF), bio-based materials, or mixtures of other materials. This PCR is valid through January 31, 2026. The primary PCR for this standard is ISO 21930:2017 *Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services*.

This PCR complies with ISO 14044: 2006, *Environmental management – Life cycle assessment – Requirements and guidelines* and ISO 14025: 2006, *Environmental management – Type III environmental declarations – Principles and procedures*. Using this PCR consists of two parts. The first part follows ISO 21930:2017, the internationally adopted common requirement for creating Type III EPDs for construction products and services. The second part is this sub-PCR which outlines the conditions that are specific to site furnishings. When preparing an EPD for site furnishings, all requirements outlined in ISO 21930:2017 and this sub-PCR, *Sub Product Category Rule for Site Furnishings, CSI MasterFormat, Section 323300*, must be followed. The purpose of this document is to define the scope of the project for performing the underlying life cycle assessment (LCA) to ensure comparability between EPDs.

This PCR was created in a collaboration between the North American Program Operators Labeling Sustainability Inc (United States) and P3 Optima (Canada). The scope of this PCR was based on the availability of information and is primarily North American based. Because the furniture industry is global, global adoption and uniformity of this PCR may be addressed in future revisions as the industry need arises. Due to time and availability, there are limitations of specificity in the document. To ensure completeness and consistency, the PCR shall be based on one or more life cycle assessments, per the ISO 14040 series of standards, and other relevant studies to identify requirements for additional environmental information. The PCR document shall reference these life cycle assessments and other relevant studies, including two fully adopted PCRs, one from Europe and one U.S. version. These documents were used as guidance documents for this PCR, and two (2) registered EPDs by the Program Operator, EPD Norge. The documents provided the minimum reference information needed to complete the LCA/EPD process for furniture, specifically site furniture. In addition, this EPD was created to include more relevant information on the chemical transparency of the furniture products, which does not appear in any of the reference documents. The following documents were used:

- NPCR 026 Part B for Furniture, The Norwegian EPD Foundation, Version 2.0 (PCR)
 - Type II Environmental Product Declaration for Urban bicycle post, C, Vestre, Published August 26, 2021
 - Type II Environmental Product Declaration for April seat, C, Vestre, Published August 26, 2021



- Product Category Rule for Environmental Product Declarations BIFMA PCR for Seating: UNCPC 3811 Version 3, NSF International, September 20, 2020

The purpose of this PCR is to provide transparent guidance for an LCA/EPD Preparer to conduct an LCA and develop an EPD that assists an organization in measuring progress towards environmental improvements of the organization's products being studied and in communicating environmental information about the product to their stakeholders. The inclusion of the CSI MasterFormat sections and nomenclature to this document assists the primary uses of the EPD for Site Furnishings and architects in understanding the information's grouping and primary category organization. The goal of this PCR reorganization is to provide the maximum information to projects architects to make the best decision for their project.

This PCR was not written to support comparative assertions between products based on different PCRs or different calculation models. As a result, they may not be comparable. When attempting to compare EPDs or life cycle impacts of products from other manufacturers, the user should be aware of the variability in the results, due to and not limited to, the practitioner's assumptions, the data year, the source of the data used in the study and the software tool used to conduct it.

1. Scope

This sub-PCR complements the core rules for the product category of construction products as defined in ISO 21930:2017 and is intended to be used in conjunction with that standard. This sub-PCR is not designed to be a stand-alone PCR nor be used singularly. This sub-PCR adds specificity to the guidelines for developing an ISO 14025 conformant Type III Environmental Product Declaration, based on an ISO 14040 and ISO 14044 conformant LCA, specifically for site furnishings. This PCR shall, at a minimum, calculate the environmental impacts of each life cycle stage as outlined in 5.2.2 Life Cycle Stages, Option 1 or Option 2. As a sub-PCR and following ISO 21930:2017 guidelines, the following are not subject to change from the Core PCR, ISO 21930:2017 *Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services*. According to Section 6.1 of ISO 21930:2017, the sub-PCR shall include the methodological framework, inventory analysis, impact assessment with the characterization methods, contents of EPD, and any additional instructions for verification of the EPD.

2. Normative References

As per the core PCR, ISO 21930:2017, *Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services*. The standard shall be referred to further in this document as the core PCR or the primary PCR.

3. Terms and Definitions

As per the core PCR, ISO 21930:2017.

4. Abbreviations

As per the core PCR, ISO 21930:2017.



5. General Aspects

5.1 Objective for Sub-PCR

The objective of this sub-PCR for site furnishings is to:

- Define an alternate method to reporting on a range of products, conforming to the core PCR
- Define how the mandatory parameters shall be organized and reported for a range of products
- Describe further 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 as it pertains site furnishings
- Addition and explanation of the chemical inventory requirements for paint, finishing, adhesives, and sealants

5.2 Life Cycle Stages, Including Module D

5.2.1 General

5.2.2 Life Cycle Stages

The EPDs for site furnishings shall follow the modules and life cycle stages in Core PCR, ISO 21930:2017, Section 5.2 Life Cycle Stages, Including Module D first. Further clarification on the life cycle stages that must be included per this sub-PCR are:

Option 1: EPD, **Cradle-to-Gate** with options, as a minimum A1-A3:

- Mandatory: Information modules A1-A3
- Optional: Information modules A5
- Optional: Information modules B1-B7
- Optional: Information modules C1-C4
- Optional: Information module D

Option 2: EPD, **Cradle-to-Grave**, as a minimum A1-C4:

- Mandatory: Information modules A1- A3
- Mandatory: Information module A4-A5
- Mandatory: Information module B1 – B7
- Mandatory: Information modules C1-C4
- Optional: Information module D

Table 1: **Life Cycle Stages including the optional Model D, adapted from ISO 21930:2017 (2)**

	A1-A3 Production	A4-A5 Construction	B1-B7 Use Stage	C1-C4 End of Life	D Benefits from Reuse & Recycling
Cradle to Gate	A1: Mandatory A2: Mandatory A3: Mandatory	A4: Optional A5: Optional	B1-B7: Optional (Scenario) B6: Optional (Scenario) B7: Optional (Scenario)	C1: Optional (Scenario) C2: Optional (Scenario) C3: Optional (Scenario)	Optional (Scenario)



				C4: Optional (Scenario)	
Cradle to Grave	A1: Mandatory A2: Mandatory A3: Mandatory	A4: Mandatory (Scenario) A5: Mandatory (Scenario)	B1-B7: Mandatory (Scenario) B6: Mandatory (Scenario) B7: Mandatory (Scenario)	C1: Mandatory (Scenario) C2: Mandatory (Scenario) C3: Mandatory (Scenario) C4: Mandatory (Scenario)	Optional (Scenario)

The intended application of this sub-product category rule (PCR) is to give guidelines for developing environmental product declarations (EPD) for site furnishings, for either a cradle to gate with options or a cradle to grave EPD. The core rules valid for all construction products are given in standard ISO 21930:2017, shall be the primary governing standard, and be followed in addition to the items listed in this document. The complete list of information required by ISO 21930:2017 will not be repeated in its entirety in this sub-PCR but shall be referenced as necessary. The EPD preparer shall be liable for understanding and performing all requirements of the core PCR in addition to the requirements listed in this document. Further descriptions of the life cycle stages are covered in the Section defining the System Boundaries.

5.2.3 Scenario Use

The use of scenarios in Cradle to Grave EPDs allows manufacturers to be rewarded for their efforts beyond their supply chain and manufacturing processes. ISO 21930:2017 provides two specific examples of where scenarios that can assist a manufacturer in detailing their advantages to the overall construction project.

Example 1: A "scenario could be based, for example, on a specific instance (e.g., transport from the factory to a particular location using the most common vehicle type to determine transport impacts), on the average installation using the average transport distance and mode for the product assessed or the assessment of 100 km of typical transport."

Example 2: "Upstream products can be used as input for other construction products. In such cases, an upstream manufacturer (e.g. of a coating) could deliver useful information for the life cycle stages of the final product by providing a scenario for the maintenance of a coating, which the downstream construction product manufacturer could use within their EPD for the downstream product's maintenance scenario. Alternatively, the upstream manufacturer could choose to provide only the production stage data for the coating." (2)

5.3 Grouping Similar Products in a Range

The range of products as an acceptable reporting method for this PCR is detailed in the Product Description. This is different from an average EPD, where one "typical" product is modeled and represents all variations within 10% of it. By performing a realistic range for modeling hundreds of combinations of a piece of furniture also allows for longevity of the EPD by keeping up with the design aesthetic and customizing furniture. For the future options to be included in this EPD, they must appear on the list of features considered when creating the low and high options. The lowest



and highest option shall be reported along with an average of the two when reporting the impacts. A complete table with the product's technical attributes, as defined in the Section on the Product Description, must be listed for the best case and worst case. This shall include a complete Bill of Materials (BOM) to 0.1% by weight. If the impacts from the low, high, and average differ by more than 10%, an explanation must be included as part of the reporting.

Similar products that vary less than 10% between models due to finished or mounting options can be included together but shall be noted. According to the Primary PCR, ISO 21930:2017

"Products can be considered similar based on materials, manufacturing or function, as relevant to the product category." (2)

An example of similar products may be that a bike rack comes in different mounting options, all within 10% of each other. In this case, the EPD would simply note the types of mounting options covered in that product in the description. Similar options should be part of the same series or a group of series, with product design being the only real difference between them. Suppose two products are not in the same series group, as determined in the manufacturer's literature, and do not contain the same material components within 10%. In that case, they cannot be included in the product range. An example of products that cannot be combined would be two different seating products, one composed of wood and one made of HPDE, that are not in the same manufacturer-determined series.

5.4 EPDs for Commercial Projects, New Construction, Renovation, Existing Sites

This sub-PCR applies to Site furnishings as defined by their MasterFormat section described above. The product description for each category shall include the name of the product, product manufacturer and/or model number, a general description, a picture of the main product, and classification of the product by MasterFormat number. In addition to these requirements for each product or range of products listed, the following information must be included as outlined in standard architectural specifications. These descriptions include:

- a) The product dimensions. This shall also include the options. For example, a bench shall be described as __ inches long x __ inches deep, __ inches high at seat, and a __ inch high backrest.
- b) Primary material composition such as wood, metal, etc.
- c) Available finished and colors

A range can be used in the instance where a product can have hundreds of possible combinations due to size and options. In this case, a "low," "high," and an average of the products shall be reported. To accomplish this, the preparer must model a "low" option, by weight and level of product features, that could be described as the lowest base model the manufacturer would produce. The "high" option, by weight and level of features, shall be modeled to include the most prominent dimension with a reasonable number of options that could be purchased as part of that model. The "high" option represents the worst-case scenario. The combination of the two should represent the total product with all its variations. This is discussed further in Section 7.1.1 detailing Product Boundaries. For the product description of the ranges, each "high" option must include a list of all the available features or options covered in that range. This list shall be referenced in the final report but can be placed in an Appendix.

5.5 Comparability of EPDs for Commercial Projects, New Construction, Renovation, and Existing Sites

Comparison of the environmental impacts using EPD information shall be based on the product's ability to serve a function over a specified amount of time. It shall consider the complete life cycle



from cradle to grave or cradle-to-gate depending on the scope of the EPDs. Only EPDs with the same scope could be comparable. For comparability, EPDs of different products must be developed using the LCA software and have the same reference year for all primary information.

5.6 Documentation

All documentation shall be required per the core PCR, ISO 21930:2017 with the addition of a chemical inventory schedule for paints, finishes, adhesives, and sealants used on the products and/or product ranges.

A chemical schedule of hazardous materials and substances shall be included in the EPD report. The general cut-off rules do not apply to such substances. This includes paints, finishes, adhesives, and sealants. The EPD shall consist of a chemical schedule of all paints, finishes, adhesives, and sealants used on the product ranges, whether they appear in the LCA product model or not. Substances shall be listed by name, Chemical Abstract Registry Numbers (CAS RN), and hazard category according to the GreenScreen methodology. The finish schedule shall be completed to 0.1%, or 1,000 ppm whenever possible. When finishing manufacturers do not release additional data beyond the Safety Data Sheet (SDS), the SDS level of information shall be used. Still, the entry shall contain a note stating the limited threshold level. The SDS Level reporting of all paints, finishes, adhesives, and sealants is the minimum the EPD shall report on for the products covered in the ranges established in the Product Description, Section 2. The two tables below are examples of reporting the two types of chemical inventories.

Table 3: **Example Chemical Inventory, .1%**

Example Chemical Inventory, .1%			
High-Performance Coating (Acrylic)			
Substance	CAS RN	% Composition	Hazard Score
water	7732-18-5	45.16%	BM-4
2-Propenoic acid, polymer with butyl 2-propenoate and ethenylbenzene	25586-20-3	15.40%	LT-UNK
Titanium Dioxide	13463-67-7	14.37%	LT-1
Limestone	1317-65-3	10.30%	LT-UNK
Zinc Phosphate	7779-90-0	5.30%	LT-P1
Kaolin	1332-58-7	3.59%	LT-UNK
Hexanol	25265-77-4	2.57%	LT-UNK
Diethylene glycol mono-n-butyl ether	112-34-5	1.03%	LT-P1



Silicon Dioxide	7631-86-9	1.03%	BM-1
Benzophenone	119-61-9	0.51%	LT-1
Polyethylene glycol nonyl phenyl ether	9016-45-9	0.51%	LT-1
Kathon 886	55965-84-9	0.44%	LT-P1

This Coating is used in the following products:

Table 4: **Example Chemical Inventory, SDS Level**

Example of a Chemical Inventory, SDS Level

Water-Based Contact Adhesive

Substance	CAS RN	% Composition	Hazard Score
Water	7732-18-5	40-50%	BM-4
Polychloroprene	9010-98-4	30-40%	LT-UNK
Resin Dispersion	Not Available	20-40%	Unknown
Zinc Oxide	1314-13-2	1-3%	BM-1
Resin Acid & Rosin Acid in Sodium and potassium form	Not Available	<5%	Unknown

This is based on the SDS provided by the manufacturer. No additional information is available. This adhesive is used in the following products:

6. Product Category Rules For LCA

As per the core PCR, 21930:2017.

6.1 Product Category Definition

This Sub Product Category Rule (Sub PCR) shall be explicitly used to prepare Type III Environmental Product Declarations (EPDs) for site furnishings as categorized by the Construction Specifications Institute (CSI) MasterFormat section 323300. Examples of the types of site furniture covered by this Section are detailed as subcategories:



32 33 13	Site Bicycle Racks
32 22 14	Site Bicycle Lockers
32 33 23	Site Trash and Litter Receptacles
32 33 33	Site Manufactured Planters
32 33 43	Site Seating and Tables
32 33 43 13	Site Seating
32 33 43 53	Site Tables

6.2 Correlation between core PCR and subcategory PCR

As per ISO 21930:2017.

6.3 Subcategory PCR

This document, Sub Product Category Rule for Site Furnishings, CSI MasterFormat, Section 323300, Version 1.0, October 2021, shall be a subcategory PCR to ISO 201930:2017.

7. PCR for LCA

7.1 Methodological framework

7.1.1 Overarching principles for LCA modeling and calculation

As per the core PCR, ISO 21930:2017

7.1.2 Functional Unit/ 7.1.3 Declared Unit

The declared unit shall be one (1) item as it appears on a customer invoice. The following are acceptable declared units following this PCR:

- One (1) Bicycle Rack
- One (1) Bicycle Locker
- One (1) Trash and Litter Receptacle
- One (1) Manufactured Planter
- One (1) Site Seating Unit
- One (1) Site Table

The functional unit shall include the declared unit, then specify the item's intended use and its reference service life when performing a cradle to grave life cycle analysis. An example of this might include: One bike rack for exterior bicycle storage, include any repair, refurbishment, or replacement of replaceable components over a required service life of 50 years. A cradle to gate declared unit is simply One (1) bike rack for exterior bicycle storage.

7.1.3 Requirements for the use of RSL

As per the Core PCR ISO 21930:2017, Section 7.1.4 with additional clarifications.

The following shall be used as the Reference Service Life (RSF) for the site furnishings covered by MasterFormat 323300:

32 33 13	Site Bicycle Racks- 50 years
32 22 14	Site Bicycle Lockers-15 years



32 33 23	Site Trash and Litter Receptacles- 50 years
32 33 33	Site Manufactured Planters- 50 years
32 33 43	Site Seating and Tables-15 years, except for benches, 50 years (3; 4)

Any differing Reference Service Values used due to differences in material composition shall be reported along with an explanation for the change.

7.1.4 System boundary with nature

As per Core PCR ISO 21930:2017, Section 7.1.5. No additional requirements.

7.1.5 System boundary between products systems

As per Core PCR ISO 21930:2017, Section 7.1.6. No additional requirements.

7.1.6 System boundaries and technical information for scenarios

System boundaries are a set of criteria specifying which unit processes are part of a product system. The entire life cycle shall be covered from cradle to gate or cradle to grave. Production of capital goods, infrastructure, and personnel-related activities shall be excluded. The underlying LCA report shall detail the system boundaries and include a description of the life cycle stages for the product under study. Below is a summary list of the description for each life cycle stage. For a more detailed list of these stages, reference ISO 21930, 7.1.7 System boundaries and technical information. System boundaries shall be displayed on the EPD in graphic form to help the reader understand the stages and include them in each.

A1-A3 Stages

The production stage includes the following three modules A1 to A3:

- A1, extraction and upstream processing/production;
- A2, transport to manufacturing facility;
- A3, manufacturing.

A3 and A4 Stages

The construction stage includes the following two information modules A4 and A5:

- A4, transport to the construction site;
- A5, installation of the product.

Note that any material losses during the installation phase and waste process of the packaging materials used during shipment shall be included in the installation phase.

B1-B5 Stages Related to Use

The use stage of the construction works includes the following five information modules:

- B1, use or application of the installed product;
- B2, maintenance;
- B3, repair;
- B4, replacement;
- B5, refurbishment.



Clarification of the types of information required for each life cycle stage is as follows. The maintenance phase, B2, includes energy and water use in cleaning and recommended repainting during the Reference Service Life (RSL). Stage B3, repair, includes repairs during the RSL if any are deemed typical. Stage B4, replacement, includes recommended component or assembly replacement during the RSL if any are considered standard. Component means a part of the whole assembly and not just the product itself. Assembly is the entire product made up of all the components. Stage B5, refurbishment, shall be included only if that is a typical scenario for the product.

B6 Stage

This is the operational energy use of the product, not related to maintenance. This shall be included only if it is relevant.

B7 Stage

This is the operational water use of the product, not related to maintenance. This shall be included only if it is relevant.

C1-C4 Stages

The end-of-life stage shall include:

- C1, demolition of the furniture;
- C2, transport of the furniture to final waste treatment;
- C3, all activities regarding reuse, recovery, and/or recycling after transportation;
- C4, disposal, i.e., waste handling that does not give a useful product (the end-of-waste criteria are fulfilled). Examples include landfilling and incineration without energy recovery.

Only scenarios detailing current plausible practices shall be included for end-of-life stages. "A recycling system is not practical if it includes a reference to a return system for which the logistics have not been established." (2)

Option D

Option D is not a life cycle stage, and this sub-PCR offers no additional guidance on its completion. For information on Option D, consult the core PCR, ISO 21930, 7.1.7.6 Benefits and loads beyond the system boundary in optional supplementary module D.

7.1.8 Criteria for the inclusion and exclusion of inputs and outputs

As per Core PCR ISO 21930:2017, Section 7.1.8. No additional requirements.

7.1.9 Selection of data and data quality requirements

Primary data, for which the manufacturer has operational control, is always preferred when producing an EPD over industry default data. When creating an EPD of site furniture, the preparer shall use primary information whenever possible. The Core PCR ISO 21930 is the standard for data quality in this sub-PCR reporting. This includes using pedigree data quality indicators as described in both the Core PCR, Clause 10 and ISO 14044:2006, 4.2.3.6. Validation of data shall address the following:



- Time-related coverage: age of data and the minimum length of time over which data should be collected;
- Geographical coverage: geographical area from which data for unit processes should be collected;
- Technology coverage: specific technology;
- Precision: measure of the variability of the data values for each data expressed (e.g. variance);
- Completeness: percentage of flow that is measured or estimated;
- Representativeness: qualitative assessment of the degree to which the data set reflects the true population of interest;
- Consistency: qualitative assessment of whether the study methodology is applied uniformly to the various components of the analysis;
- Reproducibility: qualitative assessment of the extent to which information about the methodology and data values would allow an independent practitioner to reproduce the results reported in the study;
- Sources of the data;
- Uncertainty of the information (e.g. assumptions). (ISO 21930:2017, Clause 10 and ISO 14044:2006)

When reporting on a group of similar products, the Average EPD requirements shall be used. The following data quality requirements shall be required for a product range and are cohesive with ISO 21930 for reporting on average products in an EPD. These data quality guidelines include:

1. To avoid errors over which the manufacturer cannot control, an "EPD describing a specific product shall be calculated using specific data for at least the processes over which the manufacturer of the specific product has influence. In addition, generic and proxy data may be used for the processes over which the manufacturer has no influence, for example, processes dealing with the production of input commodities, such as raw material extraction or electricity generation, often referred to as upstream data." An example of secondary upstream data can be the manufacturing and welding of the steel for bike racks. This eliminates the need to obtain energy and resource values from the supplier, which could cause accidental errors in the data quality.
2. When considering the range of the product, multiple suppliers of the same part shall be allocated at the same proportion as they were purchased during the reporting period. For example, if a steel part can come from two different manufacturers based on availability, the proportion purchased shall determine its contribution to the sum. For instance, steel part one was purchased 80% of the time during the reporting year, then 80% of the impact in A1 and A2 is attributed to them. Supplier two has the remaining 20% of the impact.
3. Each supplier shall be modeled with their regional energy and resource impacts as detailed as the LCA software shall allow. For example, suppose one supplier is in the SE USA, and one is in the NE USA. In that case, the energy shall be adjusted within the database to reflect their location whenever possible processes covering Global (GLO) and Rest of World (RoW) shall be avoided whenever possible.

The table below, from ISO 21930, 7.1.9 Selection of data and data quality requirements, depicts the use of generic and specific data in the LCA modeling of site furnishings. (2)

Table 2: **Data Requirements by Module**

A1 to A3	A1 to A5	B1 to B7	C1 to C4
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Modules	Raw material extraction & processing	Product manufacturing	Installation processes	Use processes	End-of-life processes
Process Type	Supplier upstream processes	Manufacturer's processes (primary information)	Downstream processes		
Data Type	Generic data or EPD of upstream processes or proportion of multiple generic processes allocated by the ratio of components purchased	Manufacturer-specific data for the reporting period for a single manufacturing location or averaged data of multiple locations. In addition, a manufacturer shall report primary information on overall facilities in which they have operational control.	Scenario-based generic data based on technical information and the guidelines of ISO 21930, the primary PCR.		

Where possible, allocation should be avoided. If allocation cannot be avoided, mass allocation is preferred.

For additional information on co-products and other types of allocation, see ISO 21930, 7.2.3 Allocation situations.

Mass and energy flows should be included up to 1%. Any materials or components greater than 1%, or 1,000 ppm that is knowingly omitted, shall be justified in the LCA Report and EPD. Cut-off rules shall not be applied to hide data, as per the core PCR ISO 21930 Section 7.1.8.

Scenario use for Modules B1 to B5 shall be consistent with the manufacturer's published data for, but not limited to, cleaning, maintenance, and installation, and repair. References to manufacturer-published technical sheets shall be mentioned to describe the appropriate scenarios.

7.1.10 Units

International System of Units (SI units) shall be used for both the LCA and the EPD. Quantities shall be represented with a maximum of three significant figures.

7.2 Inventory Analysis

As per the Core PCR ISO 21930:2017. No additional requirements.

7.3 Impact assessment indicators describing main environmental impacts derived from LCA

The sub-PCR shall align with the Core PCR ISO 21930:2017, Section 7.3 with the following exceptions. For European-market EPDs or those EPDs that could be used in that market, the characterization method included in the latest edition of EN 15804 shall be used. For EPDs developed and used



outside of the EU market, TRACI can be used instead of the EU preferred methodologies for calculating the following impacts:

- Ozone depletion,
- Climate change,
- Acidification,
- Eutrophication,
- Smog formation,
- Human health impacts, and
- Ecotoxicity.

For all other variations in reported impact methods, the preparer must note the reason for the deviation.

8. Additional Environmental Information

As per Core PCR ISO 21930:2017. No additional requirements.

9. Content of an EPD

As per Core PCR ISO 21930:2017 with the inclusion of the Chemical Inventory tables in the appendix.

10. EPD Report

As per Core PCR ISO 21930:2017 with the inclusion of the following document table outlining the specifics of this sub-PCR.

<p>Core PCR</p> <p>ISO 201930:2017 <i>Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services serves as the core Product Category Rule.</i></p> <p>Sub-PCR</p> <p>Sub Product Category Rule for Site Furnishings, CSI MasterFormat, Section 323300, Version 1.0, October 2021 (valid until October 2026)</p> <p>Sub-PCR Reviewer: (Contact Information)</p>
<p>Independent third-party verification of the declaration and data, according to ISO 14025:2006:</p>
<p>Third-Party Verifier: (Contact information + Signature)</p>
<p>Procedure for follow-up of data during EPD validity involves third-party verifier: <input type="checkbox"/> _Yes <input checked="" type="checkbox"/> _No</p>



11. Validity of the EPD

EPDs under this sub-PCR, following the ISO 21930:2017 Core PCR, are valid for five (5) years from the date of verification.

12. References

1. **Construction Specifications Institute.** *MasterFormat*. Alexandria: Construction Specifications Institute, 2018.
2. **International Organization for Standardization.** *Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services*. Geneva: International Organization for Standardization, 2017. 21930.
3. **The Norwegian EPD Foundation.** *PCR Part B for Furniture*. Oslo: The Norwegian EPD Foundation, October 18, 2018. PCR 026 Version 2.0.
4. **NSF International.** *BIFMA PCR for Tables: UNCPC 3812*. Ann Arbor: BIFMA, January 31, 2021.