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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

English Version

Resilient, textile, laminate and modular mechanical locked
floor coverings, underlays - Environmental product
declarations - Product category rules

Revêtements de sol résilients, textiles et stratifiés -
Déclarations environnementales des produits - Règles
régissant les catégories de produits

Elastische, textile und Laminat-Bodenbeläge - Umwelt-
Produktdeklarationen - Produktkategorieregeln

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 134.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 16810:2024) has been prepared by Technical Committee CEN/TC 134 “Resilient, textile, laminate and modular mechanical locked floor coverings”, the secretariat of which is held by NBN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 16810:2017.

prEN 16810:2024 includes the following significant technical changes with respect to EN 16810:2017:

- underlays added to the scope;
- alignment of the standard with the latest updated version of EN 15804 i.e. EN 15804:2012+A2:2019;
- module A1, A2, A3 declared separately;
- module B3 as optional and to be adapted to the SL considered;
- integration of application rules for mass balance model.

Introduction

This document provides core product category rules for resilient, textile, laminate and modular mechanical locked floor coverings. It is based on the principles laid down in EN 15804 and in EN ISO 14025 and modified to suit the specific needs of the product families addressed in the scope of this document.

It provides a structure to ensure that all Environmental Product Declarations (EPD) for resilient, textile and laminate floor coverings processes are derived, verified and presented in a harmonized way.

An EPD communicates verifiable, accurate, non-misleading environmental information for products and their applications, thereby supporting scientifically based, fair choices and stimulating the potential for market driven continuous environmental improvement.

EPD information is expressed in information modules, which allow easy organization and expression of data packages throughout the life cycle of the product. The approach requires that the underlying data should be consistent, reproducible and comparable.

The EPD is expressed in a form that allows aggregation (addition) to provide complete information for buildings. This document does not deal with aggregation at the building level nor does this document describe the rules for applying EPD in a building assessment.

The document deals with a limited number of quantifiable predetermined parameters. Future revisions may incorporate additional parameters.

This document provides the means for developing a Type III environmental declaration of resilient, textile and laminate floor coverings.

1 Scope

This document provides product category rules (PCR) for Type III environmental product declarations (EPD) for resilient, textile, laminate and modular mechanical locked floor coverings, as well for underlays specific to these floor coverings.

This document applies to the following products:

- resilient floor coverings manufactured from plastics, linoleum, cork or rubber, including loose-laid mats;
- textile floor coverings, including loose-laid mats, rugs and runners;
- laminate floor coverings;
- modular mechanical locked floor coverings;
- underlays.

An EPD can be developed for single or individual products, product groups and average products.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15398, *Resilient, textile, laminate and modular mechanical locked floor coverings (MMF) — Floor covering standard symbols — Complementary element*

EN 15804:2012+A2:2019¹, *Sustainability of construction works — Environmental product declarations — Core rules for the product category of construction products*

EN 15942, *Sustainability of construction works — Environmental product declarations — Communication format business-to-business*

EN ISO 10874, *Resilient, textile and laminate floor coverings — Classification (ISO 10874)*

EN ISO 14025:2010, *Environmental labels and declarations — Type III environmental declarations — Principles and procedures (ISO 14025:2006)*

EN ISO 14044:2006, *Environmental management — Life cycle assessment — Requirements and guidelines (ISO 14044:2006)*

ISO 21930, *Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services*

ISO 22095, *Chain of custody — General terminology and models*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

¹ As impacted by EN 15804:2012+A2:2019/AC:2021.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

ancillary material

input material or product that is used by the unit process producing the product, but which does not constitute part of the product

[SOURCE: EN ISO 14040:2006]

3.2

average data

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

Note 1 to entry: The product group or construction service can contain similar products or construction services.

3.3

comparative assertion

environmental claim regarding the superiority or equivalence of one product versus a competing product that performs the same function

[SOURCE: EN ISO 14044:2006]

3.4

co-product

secondary product, resulting from a production process, which can be re-used for production (either within or outside the flooring industry) without prior re-processing

Note 1 to entry: Bearing in mind that any substance or object can be either waste or non-waste, by-products are regarded by definition as non-waste. This means that by-products can be subject, where applicable, to legislation which excludes waste from its scope, such as REACH.

Note 2 to entry: Directive 2008/98/EC (Waste framework), Article 5(1) sets out the following four conditions that a production residue is obligated to meet in order to be considered a by-product:

- further use of the substance or object is certain;
- the substance or object can be used directly without any further processing other than normal industrial practice;
- the substance or object is produced as an integral part of a production process;
- further use is lawful, i.e. the substance or object fulfils all relevant product, environmental and health-protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts.

Note 3 to entry :Co-product, by-product and product have the same status and are used for identification of several distinguished flows of products from the same unit process. From co-product, by-product and product, waste is the only output to be distinguished as a non-product.

[SOURCES: Directive 2008/98/EC Article 5(1) of the European Parliament and of the Council of 19 November 2008 on wasteCOM (2007) 59 final COMMUNICATION FROM THE COMMISSION TO THE

COUNCIL AND THE EUROPEAN PARLIAMENT on the Interpretative Communication on waste and by-products]

3.5 declared unit

quantity of a floor covering for use as a reference unit in an EPD for an environmental declaration based on one or more information modules

Note 1 to entry: For floor coverings the declared unit is 1 m² of installed floor covering.

3.6 environmental performance

performance related to environmental impacts and environmental aspects

[SOURCE: ISO 15392:2008 and ISO 21931-1:2010]

3.7 functional unit

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

[SOURCE: EN ISO 14040: 2006]

3.8 information module

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

[SOURCE: EN ISO 14025:2010]

3.9 life cycle assessment LCA

compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle

[SOURCE: EN ISO 14044: 2006]

3.10 life cycle inventory analysis LCI

phase of life cycle assessment involving the compilation and quantification of inputs and outputs for a product throughout its life cycle

[SOURCE: EN ISO 14040: 2006]

3.11 manufacturer's declaration

environmental product declaration (EPD) by a manufacturer

- for a specific product from one plant or as an average from several plants; or
- for an average product from one plant or as an average from several plants

Note 1 to entry: A reference product, which describes a specific (usually typical) product, can also be declared.

3.12**manufacturer's group declaration**

EPD for a specific or average product as an average from several manufacturers' plants

3.13**mass balance model**

chain of custody model in which materials or products with a set of specified characteristics are mixed according to defined criteria with materials or products without that set of characteristics

Note 1 to entry: The proportion of the input with specified characteristics might only match the initial proportions on average and will typically vary across different outputs.

[SOURCE: ISO 22095]

3.14**non-renewable energy**

energy from sources which are not defined as renewable energy sources

3.15**non-renewable resource**

resource that exists in a finite amount that cannot be replenished on a human time scale

3.16**performance**

magnitude of a particular aspect of the object of consideration relative to specified requirements, objectives or targets

[SOURCE: ISO 6707-1:2004, modified according to the draft recommendation of ISO/TC 59 Terminology.]

3.17**product category**

group of construction products that can fulfil equivalent functions

[SOURCE: EN ISO 14025:2010]

3.18**product category rules****PCR**

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

[SOURCE: EN ISO 14025:2010]

3.19**product system**

collection of unit processes with elementary and product flows, performing one or more defined functions, and which models the life cycle of a product

[SOURCE: EN ISO 14040: 2006]

3.20**programme operator**

body or bodies that conduct a Type III environmental declaration programme

Note 1 to entry: A program operator can be a company or a group of companies, industrial sector or trade association, public authorities or agencies, or an independent scientific body or other organization.

3.21

recycling

diverting a discarded product or semi-finished product from waste and using it for the manufacture of a new product

3.22

renewable energy

energy from renewable non-fossil sources

EXAMPLES Wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.

[SOURCE: Directive 2009/28/EC]

3.23

renewable resource

resource that is grown, naturally replenished or naturally cleansed, on a human time scale

Note 1 to entry: A renewable resource is capable of being exhausted, but can last indefinitely with proper stewardship. Examples include: trees in forests, grasses in grassland, fertile soil

Note 2 to entry: Activities that occur in the technosphere such as recycling are not considered natural replenishment or natural cleansing.

Note 3 to entry: In this context, human time refers to the typical lifetime of a human rather than the time humans have been in existence

[SOURCE: ISO 21930: 2017]

3.24

RSL

reference service life

service life of a construction product which is known to be expected under a particular set of reference in-use conditions which can form the basis for estimating the service life under other in-use conditions

Note 1 to entry: the RSL is described as part of the functional unit and considered in the calculation of replacements at both the construction product level and construction works level (B4) and refurbishment (B5).

Note 2 to entry: the shorter acronym, RSL, is used as the preferred term in this document.

[SOURCE: ISO 21930:2017]

3.25

scenario

collection of assumptions and information concerning an expected sequence of possible future events

3.26

secondary fuel

fuel recovered from previous use or from waste which substitutes primary fuels

Note 1 to entry: Processes providing a secondary fuel are considered from the point where the secondary fuel enters the system from the previous system.

Note 2 to entry: Any combustible material recovered from previous use or from waste from the previous product system and used as a fuel in a following system is a secondary fuel.

Note 3 to entry: Examples for primary fuels are: coal, natural gas, biomass, etc.

Note 4 to entry: Examples for secondary fuels recovered from previous use or as waste are: solvents, wood, tyres, oil, animal fats.

3.27

specific data

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

3.28

third party

person or body that is recognized as being independent of the parties involved, as concerns the issues in question

Note 1 to entry: "Parties involved" are usually supplier ("first party") and purchaser ("second party") interests.

[SOURCE: EN ISO 14050:2020]

3.29

type III environmental declaration

environmental declaration providing quantified environmental data using predetermined parameters and, where relevant, additional environmental information

Note 1 to entry: The calculation of predetermined parameters is based on the ISO 14040 series, which is made up of ISO 14040.

[SOURCE: EN ISO 14025:2010, modified.]

3.30

upstream, downstream process

process that either precedes (upstream) or follows (downstream) a given life cycle stage

3.31

waste

substance or object which the generator or holder discards or intends to discard or is required to discard

[SOURCE: Waste Framework Directive 2008/98/EC Article 3(1)]

3.32

unit process

smallest element considered in the life cycle inventory analysis for which input and output data are quantified

[SOURCE: EN ISO 14040]

3.33

biogenic

produced in natural processes by living organisms but not fossilized or derived from fossil resources

3.34

biogenic carbon

carbon derived from biomass

4 Abbreviated terms

For the purposes of this document, the following abbreviated terms apply.

EPD	Environmental product declaration
FCSS	Floor covering standard symbol
LCA	Life cycle assessment
LCI	Life cycle inventory analysis
LCIA	Life cycle impact assessment
PCR	Product category rules
RSL	Reference service life

5 General aspects

5.1 Objectives of product categorization rules

An EPD according to this document provides quantified environmental information on a harmonized and scientific basis. The purpose of an EPD for floor coverings in the construction sector is to provide the basis for assessing buildings and other construction works, and identifying those, which cause less stress to the environment.

Thus the objectives of a PCR for floor coverings are to ensure:

- the provision of verifiable and consistent data for an EPD, based on LCA;
- the provision of verifiable and consistent product related technical data and/or scenarios for the assessment of the environmental performance of buildings;
- the provision of verifiable and consistent product related technical data and/or scenarios potentially related to the health of users for the assessment of the performance of buildings;
- that comparisons between floor coverings are carried out in the context of their application in the building;
- the communication of the environmental information of floor coverings from business to consumer.

Declarations based on this document are not comparative assertions.

NOTE See EN 15804:2012+A2:2019, 3.4 and ISO 14044:2006, 5.1 for more information concerning LCA used for comparative assertion.

5.2 EPD with respect to life cycle stages covered

The life cycle stages and their information modules to be included are described in full in EN 15804.

The LCA based information in a business to consumer EPD shall cover the life cycle of a product according to the system boundary (see 6.3.5).

For the products in this document the EPD covers the product stage, installation into the building, the use stage (cleaning and maintenance) and the end-of-life and is said to be 'cradle to grave' and becomes an EPD of construction products based on a LCA, i.e. covering all information modules A1 to A5, B2, C1 to C4 and D. (see Table 1, the grey shaded stages don't apply for floor coverings).

Floor covering, during its lifetime in the use stage, has no environmental aspects and impacts during its normal (i.e. anticipated) use and is neither replaced nor refurbished (other than at the end of life). As a result, floor coverings are not contributing to modules B1 and B4 to B7 which are set to be zero “0”.

Module B2 includes provisions for cleaning agent(s), energy and water consumption for the cleaning of the floor covering, incl. wastewater treatment.

Module B3 is optional.

The service lifetime of a floor covering for a certain application on a floor is too widespread to give one common number. For this EPD model the reference service lifetime (RSL) is set to one year (see Annex B).

This means that all impacts for the use phase are based on the cleaning and maintenance model for one year (see Table 1). Depending on the area of use, based on EN ISO 10874, the technical lifetime advised by the manufacturer and the estimated time on the floor by the customer, the service lifetime could be determined. The use phase impacts should be calculated with the foreseen service life to arrive at the total environmental impact.

Table 1 — Types of EPD with respect to life cycle stages covered and life cycle stages and modules for the building assessment

	BUILDING ASSESSMENT INFORMATION															SUPPLEMENTARY INFORMATION BEYOND THE CONSTRUCTION WORKS LIFE CYCLE	
	CONSTRUCTION WORKS LIFE CYCLE INFORMATION																
	A 1–3			A 4–5		B 1–7					C 1–4						D
	PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE					END OF LIFE STAGE						Benefits and loads beyond the system boundary
	A1	A2	A3	A4	A5	B1	B2 (1yr)	B3	B4	B5	C1	C2	C3	C4			
	Raw material supply	Transport	Manufacturing	Transport	Construction or installation process	Use	Maintenance	Repair	Replacement	Refurbishment	De-construction	Transport	Waste processing	Disposal		Reuse, recovery, recycling potential	
				scenario		scenario					scenario						
						B6 Operational energy use											
						scenario											
						B7 Operational water use											
scenario																	
Cradle to grave (functional unit)	M		M 1) 2)	M 1) 2)		M 1) 2)	0			M 1) 2)	M 1) 2)	M 1) 2)	M 1) 2)	RSL (2)	M		

M = mandatory; 1) inclusion for a declared scenario; 2) if all scenarios are given
0 = optional

M = mandatory; 1) inclusion for a declared scenario; 2) if all scenarios are given

0 = optional

5.3 Comparability of EPD for floor coverings

In principle the comparison of products on the basis of their EPD is defined by the contribution they make to the environmental performance of the building. Consequently, comparison of the environmental performance of construction products using the EPD information shall be based on the product's use in and its impacts on the building and shall consider the complete life cycle (all information modules).

Comparisons of different floor coverings are only allowed, where EN 15804 consistent and/or pre-verified background data and EN 15804 consistent calculation methods and database versions are used and when the building context is taken into account, i.e. on the basis of the same use-classification (EN ISO 10874), same service life and comparable assumptions for the end of life.

In order to ensure an equal basis for comparison the assessment of the product of the comparison preferably should be carried out by the same assessor. This contributes to the selection of identical data sets, decisions and choices, etc. in the calculation process.

The estimated service life of a floor covering depends e.g. on the kind of floor covering and the area of application, the user himself and the maintenance of the product. Comparisons of different floor coverings are only allowed if these parameters are considered in a consistent way. For this purpose, the EN ISO 10874 and ISO 15686-1 give guidance.

The difference between two products may be insignificant in the building context.

NOTE 1 EPD that are not in a building context are not tools to compare construction products and construction services.

For the sustainability assessment of buildings comparisons of the environmental aspects and impacts need to be undertaken in conjunction with the social and economic aspects and impacts related to the building.

NOTE 2 For the interpretation of a comparison, benchmarks or reference values are needed. This document does not set benchmarks or reference values.

NOTE 3 the product is integrated in the building and can impact the technical performance and functional use of the building. E.g. safety aspects (*slippery floors*), contribution to the acoustical comfort, demand for cleaning (maintenance).

Comparisons are possible at the sub-building level, e.g. for assembled systems, components, products for one or more life cycle stages. In such cases the principle that the basis for comparison of the assessment is the entire building, shall be maintained by ensuring that:

- the same functional requirements as defined in the client's brief are met;

NOTE Attention is drawn to legislation that can apply.

and;

- the environmental performance and technical performance of any assembled systems, components, or products excluded are the same; and;
- the amounts of any material excluded are the same; and;
- excluded processes or life cycle stages are the same; and;
- the influence of the product systems on the operational aspects and impacts of the building are taken into account.

The information provided for such comparison shall be transparent to allow the purchaser or user to understand the limitations of comparability. A justification shall be given for any excluded aspects.

5.4 Additional environmental information

5.4.1 General

Any additional environmental information provided shall meet the requirements in EN ISO 14025:2010, 7.2.4.

In this core PCR, the following categories of additional information are addressed.

5.4.2 Additional impact indicators

This core PCR includes additional environmental impact indicators. The defined set of these LCA-based additional environmental impact indicators (see 7.2.3.2) shall be calculated and included in the project report. They may be declared in the EPD and if declared they shall be declared as additional environmental impact indicators including the appropriate disclaimers from Table 4 (see 7.2.3.3).

5.4.3 Additional information on carbon offset, carbon storage and delayed emissions

Carbon offset processes are not part of the product system under study. Carbon offset shall not be included in the calculation of the GWP.

NOTE A carbon offset is a reduction in emissions of carbon dioxide or other greenhouse gases made in order to compensate for an emission elsewhere.

The effect of temporary carbon storage and delayed emissions, i.e. the discounting of emissions and removals, shall not be included in the calculation of the GWP. The effect of permanent biogenic carbon storage shall also not be included in the calculation of the GWP.

5.4.4 Additional Information not derived from LCA

The following two categories of information not derived from LCA shall be addressed:

- Additional technical information, describing technical conditions underlying scenarios and characterizing the product's technical and functional performance during the life cycle stages other than the product stage (A4–C4) and for the information provided under module D for any scenario-based calculation of the LCA based indicators (see 6.3.6.4 and 7.3).
- Additional information on emissions to indoor air, soil and water during the use stage, describing release of dangerous substances into indoor air, soil and water which are not covered by LCA. This additional information is required (see 7.4).

NOTE Information concerning health related emissions to indoor air, soil and water supports the social performance of buildings which is addressed in EN 16309 *Sustainability of construction works — Assessment of social performance of buildings — Calculation methodology*.

5.5 Ownership, responsibility and liability for the EPD

A manufacturer or a group of manufacturers are the sole owners and have liability and responsibility for an EPD.

5.6 Communication formats

The communication format of the EPD shall be in accordance with EN 15942.

The format of the EPD shall address the complete content of the EPD specified in Clause 7. It can be communicated via hard copy or via electronic media.

6 Product Category Rules for LCA

6.1 Product category

The product category referred to in this document includes resilient, textile, laminate and modular mechanical locked floor coverings and underlays for floor coverings.

6.2 Life cycle stages and their information modules to be included

6.2.1 General

The environmental information of an EPD for floor coverings ("cradle to grave") shall be subdivided into the modules A1, A2, A3, A4-A5, B2, B3, C1-C4 and module D (see Table 1).

B3 is an optional module and shall be adapted to the SL considered.

Information modules include impacts and aspects related to losses in the module in which the losses occur (i.e. production, transport, and waste processing and disposal of the lost waste products and materials).

6.2.2 A1-A3, Product stage, information modules

The product stage includes:

- A1, raw material extraction and processing, processing of secondary material input (e.g. recycling processes);
- A2, transport to the manufacturer;
- A3, manufacturing.

This includes provision of all materials, products and energy, as well as waste processing up to the end-of-waste state (6.3.3.5 and Annex C) or disposal of final residues during the product stage.

Module A1, A2 and A3 shall be declared separately.

6.2.3 A4-A5, Construction process stage, information modules

The construction process stage includes:

- A4, transport to the building site;
- A5, installation into the building.

This includes provision of all materials, products and energy, as well as waste processing up to the end-of-waste state or disposal of final residues during the construction process stage. These information modules also include all impacts and aspects related to any losses during this construction process stage (i.e. production, transport, and waste processing and disposal of the lost products and materials).

6.2.4 B1-B5, Use stage, information modules related to the building fabric

The use stage, related to the building fabric includes:

- B1, use or application of the installed product;
- B2, cleaning and maintenance;
- B3, repair;
- B4, replacement;

- B5, refurbishment.

Module B2, cleaning and maintenance, applies to floor coverings. B3 is an optional module and shall be adapted to the service lifetime considered. B1, B4 and B5 are set to zero (see 5.2).

This includes provision and transport of all materials, products and related energy and water use, as well as waste processing up to the end-of-waste state or disposal of final residues during this part of the use stage. These information modules also include all impacts and aspects related to the losses during this part of the use stage (i.e. production, transport, and waste processing and disposal of the lost products and materials).

6.2.5 B6-B7, use stage, information modules related to the operation of the building

The modules B6 (operational energy use) and B7 (operational water use) are set to zero (see 5.2).

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

The end-of-life stage includes:

- C1, de-construction, demolition;
- C2, transport to waste processing;
- C3, waste processing for reuse, recovery and/or recycling;
- C4, disposal.

This includes provision of all transport, all materials, products and related energy and water use.

6.2.7 D, Benefits and loads beyond the system boundary, information module

Module D includes reuse, recovery and/or recycling potentials, expressed as net impacts and benefits.

6.3 Calculation rules for the LCA

6.3.1 Functional unit

The functional unit is 1m² of installed floor covering for specified applications and use areas according to EN ISO 10874.

6.3.2 Reference service life (RSL)

The service lifetime of a floor covering for a certain application on a floor is too widespread to give one common number. For this EPD model the reference service lifetime (RSL) is set to one year; see Annex B.

This means that all impacts for the use phase are based on the cleaning and maintenance model for one year. Depending on the area of use based on EN ISO 10874, the technical lifetime advised by the manufacturer and the estimated time on the floor by the customer, the service lifetime can be determined. The use phase impacts should be calculated with the foreseen service life to arrive at the total environmental impact.

6.3.3 System boundaries

6.3.3.1 General

The modular set up of the LCA underlying an EPD (see Table 1) allows easy organization and expression of data packages throughout the life cycle of the product. This approach requires that the system boundaries for the life cycle stages, and the information modules included are transparent, well defined and applicable to any floor covering.