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Resilient, textile, laminate and modular mechanical locked floor coverings — Circular Economy — Terms and definitions

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National foreword

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A list of organizations represented on this committee can be obtained on request to its committee manager.

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European foreword

This document (EN 17861:2023) 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 European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2024, and conflicting national standards shall be withdrawn at the latest by January 2024.

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Introduction

This document is intended to provide producers, distributors and consumers of floor coverings with a clear understanding of how terms widely used with reference to the circular economy are defined by and apply specifically to the flooring sector. Figure 1 shows the material flows for floor covering in a circular economy.

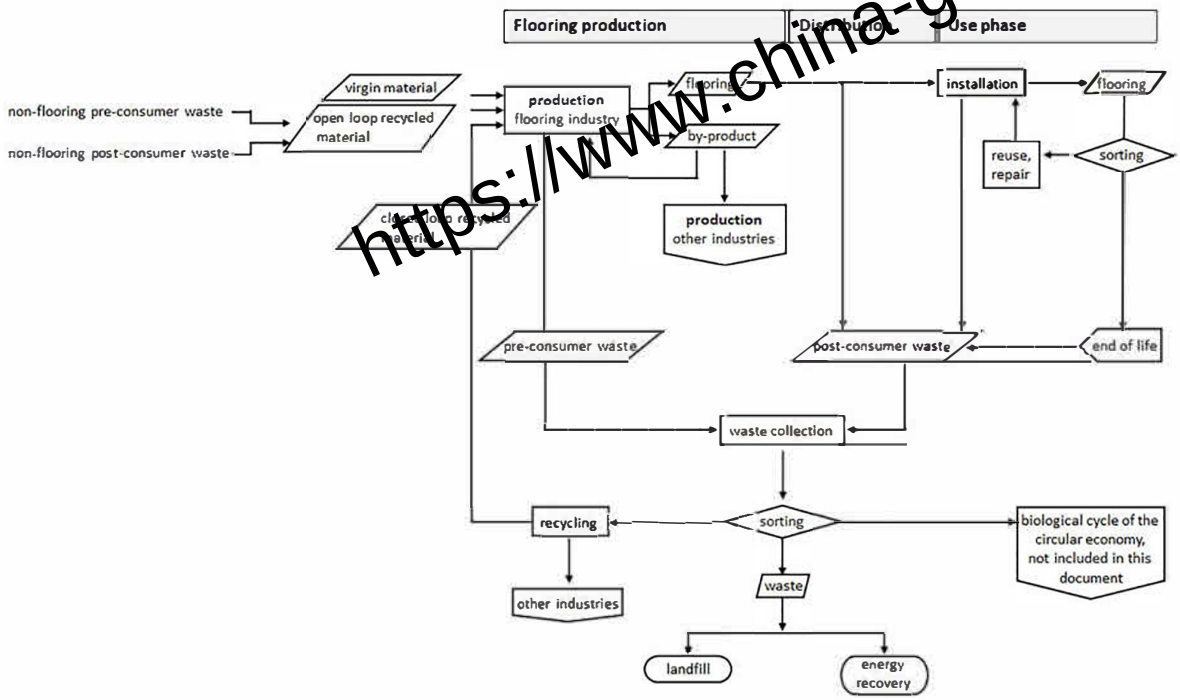

Figure 1 — Schematic diagram showing the various material flows for floor coverings in a circular economy

1 Scope

This document defines terms regarding circular economy that are used by the flooring sector.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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 http://www.electropedia.org/

3.1
circular economy
economic system aimed at maintaining the value of products, materials and resources for as long as possible by extracting the maximum value from them whilst in use, then recovering and regenerating products and materials at the end of each service life, while minimizing the generation of waste

Note 1 to entry: It entails gradually decoupling economic activity from the consumption of finite resources and designing waste out of the system. It is based on three principles:

— Design out waste and pollution.

— Keep products and materials in use.

— Regenerate natural systems.

[SOURCES: Adapted from:
1) Plastics Recyclers Europe Glossary https://www.plasticsrecyclers.eu/glossary
2) Ellen Mac Arthur Foundation "What is a circular economy"
www.ellenmacarthurfoundation.org/circular-economy/conceptl

3.2
reuse
use of a product more than once in its original form

Note 1 to entry: The term "reuse" can be applied to floor covering which is uplifted at the end of its first life from one setting and used again in a different setting, thus extending its use phase.

[SOURCE: ISO 15270:2008, Definition 3.32, modified by taking only the definition and using the term in its non-hyphenated form]

3.3
design for recycling
approach to the design of a product that facilitates recycling at the end of its useful life

3.4
biomass
material of biological origin, excluding material embedded in geological formations or transformed to fossilized material and excluding peat

Note 1 to entry: This includes organic material (both living and dead) from above and below ground, e.g. trees, crops, grasses, tree litter, algae, animals and waste of biological origin, e.g. manure.

[SOURCE: EN ISO 14021:2016, Definition: 3.1.1]

3.5
bio-based
derived from biomass

Note 1 to entry: It is essential to characterize the amount of biomass contained in the product by its (total) bio-based content.

[SOURCE: EN 16575:2014, Definition 2.1, modified by taking only the definition]

3.5.1
bio-based material content
proportion, by mass, of material in a flooring product that is derived from biomass

Note 1 to entry: Expressed as a percentage of the total mass of the product.

3.5.2
bio-based carbon content
fraction of carbon from biomass in a product

Note 1 to entry: There are several ways to express bio-based carbon content, including a percentage mass, total carbon content, or total organic carbon content of the sample.

[SOURCE: EN 16575:2014: *Bio-based products – Vocabulary*]

3.6
biodegradable
capable of undergoing biological aerobic or anaerobic degradation during a defined period, leading to a release of carbon dioxide and/or biogas and biomass, depending on the environmental conditions of the process

Note 1 to entry: Examples for standards to determine biodegradability are:

— EN ISO 17556:2019, *Plastics — Determination of the ultimate aerobic biodegradability of plastic materials in soil by measuring the oxygen demand in a respirometer or the amount of carbon dioxide evolved*

— ISO 21701:2019, *Textiles — Test method for accelerated hydrolysis of textile materials and biodegradation under controlled composting conditions of the resulting hydrolysate*

— EN 13432:2000[1], *Packaging — Requirements for packaging recoverable through composting and biodegradation - Test scheme and evaluation criteria for the final acceptance of packaging*

[1] As impacted by EN 13432:2000/AC:2005.

3.7
renewable material
material that is composed of biomass and that can be continually replenished within a defined period

[SOURCE: EN 16575:2014, 2.15: *Bio-based products - Vocabulary*, modified by adding "within a defined period"]

3.7.1
renewable material content
proportion, by mass, of renewable material in a flooring product

Note 1 to entry: Expressed as a percentage of the total mass of the product.

3.8
recycled material
material that has undergone a recycling process

3.8.1
recycled material content
proportion, by mass, of recycled material in a flooring product, taking into account pre-consumer and post-consumer waste

Note 1 to entry: Expressed as a percentage of the total mass of the product.

3.9
by-product
secondary product, resulting from a production process, which can be reused 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: Waste Framework Directive 2008/98/EC 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.

[SOURCES:
1) Waste Framework Directive 2008/98/EC Article 5(1)
2) COM (2007) 59 final COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT on the Interpretative Communication on waste and by-products]

3.10
waste
any 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)]

3.10.1
pre-consumer waste
material, resulting from a production process which has to undergo a recycling operation, or contains contaminants that need to be removed before it can be further used or processed

Note 1 to entry: Included is processing waste that has been substantively adapted/reformulated prior to reprocessing; excluded are by-products.

Note 2 to entry: "Substantively adapted and reformulated prior to reprocessing" refers to:

- unintentionally produced material which is sorted and re-mixed with other compatible material or virgin materials before being reintroduced into the process or which has to be reformulated with the addition of new additives and compounds resulting, for example, in new granules or feedstock which then can be reintroduced into the new process;
- unintentionally produced material which has to be disassembled by separating layers, before being reintroduced into the process.

Note 3 to entry: The term "post-industrial material" is sometimes used synonymously.

3.10.2
post-consumer waste
material, generated by the users of products, that has fulfilled its intended purpose or can no longer be used, including material returned from within the distribution chain, used flooring after renovation, demolition, off cuts collected from the site of flooring installation

Note 1 to entry: The term "post-use" is sometimes used synonymously.

3.11
recycling
processing of waste materials for the original purpose or for other purposes, excluding energy recovery

[SOURCE: EN ISO 472:2013, 2.1706: *Plastics – vocabulary*]

3.11.1
physical recycling
processing of floor covering waste into recycled raw material or products without changing the chemical structure of the material

3.11.1.1
recycling by dissolution technologies
processing of floor covering waste into recycled raw material or products by means of dissolution technologies (e.g., using a solvent to leach out one or more components or separating the waste into its individual components)

Note 1 to entry: Excluded are processes resulting in altering the chemical structure of one or more of the components (e.g. depolymerization); these are covered by "chemical recycling".

3.11.1.2
mechanical recycling
processing of floor covering waste into recycled raw material or products by means of mechanical processes, e.g., grinding, washing, separating, drying, re-granulating and compounding, thus producing recyclates that can be converted into new products, often substituting virgin materials

Note 1 to entry: Includes disassembly, separation into different components or layers.

3.11.2
chemical recycling
breaking down or changing the chemical structure of a material to obtain (a) new material(s) which can either be broken down further or used as raw material

Note 1 to entry: Examples for processes used in (polymer) recycling are cracking, gasification, pyrolysis or depolymerization.

Note 2 to entry: Energy recovery and incineration are excluded.

Note 3 to entry: "Chemical recycling" is also referred to as "feedstock recycling" when the end products of the recycling process can be used as feedstock for a petrochemical plant.

3.12
product group
group of related products which share some common attributes like features, use, production processes, etc.

Note 1 to entry: In the context of this document, the product group would be either the floor coverings or the different types of floor covering covered by CEN/TC 134.

3.13
open loop recycling
recycling for use in a different product group to the one from which it originated

3.14
closed loop recycling
recycling for use in the same product group as the one from which it originated

3.15
energy recovery
conversion of waste material into useful energy

Note 1 to entry: Energy recovery is achieved through the combustion of processed or raw refuse to e.g. produce steam.

Note 2 to entry: Energy recovery is not considered as recycling.

3.16
landfill
waste disposal site for the deposit of waste on to or into land under controlled or regulated conditions

Note 1 to entry: Landfill is not considered as recycling.

[SOURCE: ISO 15270:2008, 3.18: *Plastics — Guidelines for the recovery and recycling of plastics waste*, modified with addition of Note 1 to entry]

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[9] COM (2007) 59 final COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT on the Interpretative Communication on waste and by-products

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[11] European Environment Agency -Terms. www.eea.europa.eu

[12] FSC-STD-40-004 V3.0 Chain of Custody Certification

[13] Europe P. Glossary, www.plasticseurope.org

[14] Plastic Recyclers Europe Glossary https://www.plasticsrecyclers.eu/glossary

[15] Waste Framework Directive 2008/98/EC

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