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Packaging - Report on criteria and methodologies for life cycle analysis of packaging

Emballage - Rapport sur les critères et méthodologies pour l'analyse du cycle de vie des emballages

Verpackung - Bericht über die Kriterien und Methodik von Ökobilanzen für Verpackungen

This Technical Report was approved by CEN on 19 June 2010. It has been drawn up by the Technical Committee CEN/TC 261.

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Ref. No. CEN/TR 13910:2010: E

Contents

Forewo	ord	3
Introduction4		
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4 4.1 4.2 4.2.1 4.2.2 4.2.3 4.2.4 4.2.5 4.3 4.4 4.4.1 4.4.2 4.5 4.5.1 4.5.1	Criteria and methodology for life cycle assessment of packaging	7 8 8 . 10 . 11 . 14 . 14 . 16 . 16 . 16 . 16 . 17 . 17
4.5.2 4.5.3	Key data points, setting and assumptions Limitations, uncertainties and significance of results	. 18 . 19
5	Presentation and communication	. 20
6	Critical review	. 20
7 7.1 7.2 7.2.1 7.2.2 7.2.3	Further requirements and aspects to consider General limitations of LCA as a tool/method Limitations in the context of specific areas of application of packaging LCAs General Comparative packaging LCAs Packaging function and logistics	. 20 . 20 . 20 . 20 . 21 . 21
Annex	A (informative) Cross-references	. 22
Bibliography		. 23
		Ś

Foreword

This document (CEN/TR 13910:2010) has been prepared by Technical Committee CEN/TC 261 "Packaging", the secretariat of which is held by AFNOR.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes CR 13910:2000.

This Technical Report defines and describes how to apply Life Cycle Assessment (LCA) to packaging and distribution systems. The expression "Life Cycle Analysis", applied in the EU Packaging Directive, is in this report considered as identical to the concept of "Life Cycle Assessment" in the EN ISO 14040 standards.

This Technical Report has been prepared by the CEN Working Group, CEN/TC 261/SC 4/WG 1/TG 1, which ind a s. has been considering the aspects of life cycle assessment specific to packaging, in order to fulfil the "Mandate 200 rev.3 to CEN for Standardisation and a study related to packaging and packaging waste", requested by the EU Commission.

Introduction

Packaging is an integral part of modern society providing means for protection, presentation, information and distribution of products to industry, trade and consumers.

In 1994 the European Parliament and the European Council adopted a Directive on Packaging and Packaging Waste, covering all types of packaging placed on the market in the European Community and all packaging waste, whether used or released at the industrial, commercial, office, shop, service, household level or at any other level, regardless of the material used.

The Directive aims to harmonise national measures concerning the management of packaging and packaging waste in order to, on the one hand, prevent any impact thereof on the environment of all Member States, as well as of third countries, or to reduce such impact, thus providing a high level of environmental protection, and, on the other hand, to ensure the functioning of the internal market and to avoid obstacles to trade, and the distortion and restriction of competition within the European Community. The two objectives are on an equal footing.

Article 10 of the Directive states that the European Commission shall promote the preparation of European standards relating to the essential requirements referred to in Annex II of the Directive and, in particular, the preparation of European Standards relating to, among others:

— criteria and methodologies for life-cycle analysis of packaging.

The present Technical Report covers the work of CEN to meet that requirement.

1 Scope

This Technical Report establishes a set of best practice guidelines for undertaking those aspects of life cycle assessment specific to packaging and distribution systems.

2 Normative references

The following referenced documents are indispensable for the application 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 ISO 14040:2006, *Environmental management* — *Life cycle assessment* — *Principles and framework* (ISO 14040:2006)

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

3 Terms and definitions

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

This section defines the LCA and packaging specific terms used in this report. The LCA terms are based on definitions given in EN ISO 14040:2006, and the packaging terms are based on definitions in the European Parliament and the Council Directive on Packaging and Packaging Waste (94/62/EC) and terms and definitions referred to in EN 13193 unless stated otherwise.

3.1

life cycle assessment

LCA

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

3.2

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

3.3 life cycle impact assessment

LCIA

phase of life cycle assessment aimed at understanding and evaluating the magnitude and significance of the potential environmental impacts for a product system throughout the life cycle of the product

3.4

life cycle interpretation

phase of life cycle assessment in which the findings of either the inventory analysis or the impact assessment, or both, are evaluated in relation to the defined goal and scope in order to reach conclusions and recommendations

3.5

packaging

all items made of any material of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer