SLOVENSKI STANDARD
SIST-TP CEN/TR 15941:2011

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Trajnostnost gradbenih objektov - Okoljske deklaracije za proizvode - Metodologija in informacije za generične podatke

Sustainability of construction works - Environmental product declarations - Methodology and data for generic data

Nachhaltigkeit von Bauwerken - Umweltproduktdeklarationen - Methoden und Angaben für generische Daten

Contribution des ouvrages de construction au développement durable - Méthodologie et informations relatives aux données génériques

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Sustainability of construction works - Environmental product declarations - Methodology for selection and use of generic data

Contribution des ouvrages de construction au développement durable - Déclarations environnementales des produits - Méthodologie pour la sélection et l'utilisation des données génériques

Nachhaltigkeit von Bauwerken - Umweltproduktdeklarationen - Methoden für Auswahl und Verwendung von generischen Daten

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CEN/TR 15941:2010 (E)

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Foreword

This document (CEN/TR 15941:2010) has been prepared by Technical Committee CEN/TC 350 "Sustainability of construction works", 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 Technical Report supports the use of Product Category Rules (prEN 15804) for construction products. Together they are used as the means for arriving at Environmental Product Declarations (EPD).

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Introduction

This Technical Report is a supporting document referenced in prEN 15804. The Technical Report provides guidance for the selection and use of different types of generic data available for practitioners and verifiers involved in the preparation of EPD in order to improve consistency and comparability.

The TR provides a common language to improve understanding and introduces the concept of pre-verification to help with the selection of generic data. It also indicates the types and possible sources of data that exist and gives guidance on how to judge their selection. The TR also recognises that there are different levels of aggregation of data for material components, elements and buildings. The TR provides an explanation of the quality requirements for the data.

1 Scope

This Technical Report supports the development of Environmental Product Declarations (EPD).

It assists in using generic data according to the core product category rules (prEN 15804) during the preparation of EPD of construction products, processes and services in a consistent way, and also in the application of generic data in the environmental performance assessment of buildings according to prEN 15978.

The requirements for the use of generic data are described in prEN 15804.

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.

prEN 15804:2008, *Sustainability of construction works — Environmental product declarations — Product category rules*

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

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)*

ISO/TR 14049:2000*, Environmental management — Life cycle assessment — Examples of application of ISO 14041 to goal and scope definition and inventory analysis*

3 Terms and definitions

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

3.1
average data
data combined from different manufacturers or production sites for the same declared unit

NOTE   Average can relate to a number of issues such as location or time.

3.2
data set
collection of data appropriate for a specific LCA, LCI or for information modules

3.3
generic data
surrogate data used if no system specific data are available

NOTE 1   Data can be site specific or average.

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3.4
meta data
information about the data being used, e.g. the data source, its age, the accuracy and precision, etc.

3.6
product
goods or service

[Adapted from EN ISO 14024:2000]

3.7
site specific data
data derived from one production site

NOTE   Data might include different production lines.

3.8
system specific data
data specific to the product system under study

3.9
upstream, downstream process
process that either precedes (upstream) or follows (downstream) a given life cycle stage

3.10
verification
confirmation, through the provision of objective evidence, that specified requirements have been fulfilled

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[EN ISO 9000:2005]

4   Generic data

4.1   General

Generic data are used instead of system specific data to describe the environmental impacts and aspects of a product's life cycle in an LCA study. Generic data are used for calculations where system specific data LCI/LCA data are not available or where other non-system specific LCI or technical data are required.

Generic data are needed for calculation of LCA/EPD as well as for the development of scenarios supporting the use EPD for the assessment of the environmental performance of construction products and construction works. Therefore, the methodological requirements of prEN 15804 also apply to generic data.

The guidance on selection of generic data illustrates different aspects the LCA practitioner is confronted with when collecting data for a LCA/EPD.

Generic data and average data are not necessarily the same. Average data are information that has been calculated as a mean value. Generic data are information (a data set) not specific to the system under study, although they may be average (i.e. calculated as a mean value) or obtained from a specific site.

4.2   Types of Generic Data

There are different types of generic data relevant within the practice of the building assessment arrived at by using information from EPDs:

a)   generic LCI data for the development of the LCI results for an EPD (example: generic LCI result data set for the "production of 1 kWh electricity" used in the production process or data set for "incineration of 1 kg cardboard (packaging waste)" for end-of-life treatment of product packaging);

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b)   generic technical data for scenarios in the foreground system (example: default distance (km) to disposal place, unless known);

c)   generic LCA, LCI and information module data for the use in building assessment (example: generic LCA result data set for the "production of 1 m^2 outer wall bricks-and mortar-built" or for "delivery of 1 kWh space heating from a heat pump using geothermal energy".

It is always important to choose data that fit to the goal and scope of the performed LCA study. The selection of generic data must not skew the results of the study with respect to its scope and goal.

4.3   Application of generic data in EPD

4.3.1   Manufacturer's EPD

Normally when undertaking LCA for an EPD, specific data for a certain product or process should be used. Often, however, such specific data are missing and the practitioner has to seek information from other sources; generic data then replaces specific data. Generic data should never replace specific data if specific data are available.

A manufacturer knows his own product and its production processes and the EPD can be prepared using specific data for theses processes. Generic data however describe upstream and downstream processes in addition to the data describing the manufacturer's own process, e.g. on his site. Generic data may also help to describe a product's position in the supply chain of the building.

4.3.2   Trade Association EPD

When industry associations create EPDs, they are normally based on average system specific data, representing the products of the association members in average values. Producers having production at multiple sites as a rule apply average data to represent their product.

4.3.3   Scenarios in EPDs

4.3.3.1   General

Generic data are often used when scenarios have to be created in an EPD, to fill out data gaps and to make the study plausible.

Generic data can be used both for the direct calculation of a process, but it is also used for the creation of scenarios where no direct information about future conditions are available or where it is impossible to know precisely how the information shall be applied since there may exist more than one option for its application. The latter is often the case when applying scenarios in a sensitivity analysis to track how sensitive the outcome of a study is in relation to different influencing parameters.

Generic data for scenarios should be as realistic as possible and properly documented (covering the present or anticipated situation), rather than idealistic or "carefully selected".

4.3.3.2   Building elements description scenarios

The aggregation of (specific or average) data from individual components into new generic elements is helpful for calculations in the early design stages, when the details of the construction and materials are not yet decided.

4.3.3.3   Construction process scenarios

Construction process scenarios are of importance for the construction, use and end-of-life stage; and of particular importance for comparing products over the entire life cycle of the building. The reference scenario for which the EPD is calculated, should reflect and be extrapolated from a present, realistic situation and not