

### InData Compliance Rules CP-2020 and CPEN2018v2

## for Construction Products according to EN 15804 and ILCD+EPD data format v1.2

#### I Preface

#### InData

The ,International Open Data Network for Sustainable Construction (InData)' is an informal, non-profit working group of interested stakeholders. The main objective of InData is to establish an online based international open data network structure for EPD/LCA data using a common data format and open source software. Further information and list of participants are given at the website [1]. The basic objectives were stipulated in the 'Decalogue' [2] and other related documents [3-5].

Note: For the moment, InData activities refer to the construction sector, and EPD/LCA data according to European Standard EN 15804. InData takes no responsibility for usage in other sectors. The InData framework and compliant data are not designed for performing life cycle assessment of building products. As the ILCD+EPD data format is open to further developments, in future, further compliance categories might be developed, for example for other products and other relating standards.

#### Motivation for an Open International Data Network

Using a common data format in an open network structure shall allow open access to data, while maintaining individual ownership and allowing for flexible application of data. The user shall be able to filter data from the entire database network for his specific purpose. This means, data is provided and organized by each supplier, while at the same time available to users across the data network.

#### **II** Definitions / Explanations

#### **ILCD+EPD Data Format**

The ILCD+EPD data format (short for "ILCD data format with EPD extensions") is a technical means for transporting information associated with an EPD in a structured way. It is based on the established ILCD data format created by the European Commission [9], limited to those parts which are necessary and suitable for describing EPD data. It is complemented by additional information specific to EPDs that was not foreseen in the original ILCD format. The format allows for the adaption of related specific national requirements or changes in the underlying standards (e. g. amendments of EN 15804) as shown in the chart below.

The specification and documentation is available at the website [8].





ILCD+EPD

Figure 1: Scheme – ILCD+EPD data format

#### InData Compliance

Data has to be provided in the ILCD+EPD format, and with InData compliance.

The following table shows the versions of compliance systems approved by InData so far.

	CPEN2018	CPEN2018v2	CP-2020
Compliance system	EN 15804+A1	EN 15804+A1	EN 15804+A2
ILCD+EPD data format	Version v1.1 <sup>1</sup>	Version v1.2,	Version v1.2
LCA indicators	According to "Table of	According to "Table of	According to "Table of
	definitions", edition	definitions", edition	definitions CP-2020",
	Nov 23, 2018	Nov 23, 2018	edition Aug 11, 2020
Mandatory declaration of	According to "Table of	According to "Table of	Entsprechend "Table
defined data fields	definitons",edition	definitons CP-2020",	of definitons CP-2020",
	Nov 23, 2018	edition Aug 11, 2020	edition Aug 11, 2020
InData Compliance	Edition:	Edition: October 2020	Edition: October 2020
Rules	September 2019	(at hand)	(at hand)

<sup>1</sup> originally without version designation

The InData Compliance Rules at hand correspond to CPEN2018v2 and CP-2020. For all InData compliant data sets all rules and requirements of the document at hand have to be fulfilled.

As to the ILCD+EPD data format, mandatory data field elements define the common core of all InData compliant datasets. Furthermore, some of the addressed data field elements are optional.

All data field elements supported by ILCD+EPD data format are shown in the 'Table of definitions of ILCD+EPD data format v.1.2)' and corresponding FAQ document [6, 7].

The conformity with InData definitions and requirements shall be stated in the 'Self-Declaration for Data Provider within InData Data Network' [10].

#### Data Quality

Data quality according to ISO 14048/TS is the 'description of known general and specific quality strengths and weaknesses in the process'.

'Data quality' in this document is mostly used in the sense of "fitness for purpose". The fitness for purpose may differ for different users and may be considered by data providers in different ways. E.g. a data base provider for building/construction assessment tools will regard the consistency and comparability of data with the specific requirements of the building/construction assessment tool as very important, while for an EPD programme operator wanting to publish his EPD in digitalized format, conformity with EN 15804 may be appropriate. InData aims to address both use cases by providing a preferably high level of transparency of the delivered data.



#### III InData Compliance Rules

#### 1. Purpose of use of data

The purpose of delivering the data shall be described. (This information is a mandatory part of the self-declaration.)

#### 2. Data acceptance rules

The acceptance criteria and procedures have to be provided, if applicable<sup>\*</sup>). (This information shall be delivered as mandatory part of the self-declaration.)

\*) For example, if the data provider is the EPD program operator himself, this rule might not be applicable.

#### 3. Transparency of rules

The programme rules and product category rules (PCR) are publicly available (EN ISO 14025).

#### 4. Conformance and independence of verification

#### 4.1 Independence of verification

For all data sets an independent external verification is carried out according to relevant standards (EN ISO 14025, ISO 21930), i.e. (EN ISO 14025, 8.2.1)

- Verifier has to be verifiably independent from LCA expert or owner of enterprise
- Verifier may not have been involved in the execution of the LCA
- Verifier may not have been involved in the development of the declaration

- Verifier may not have conflicts of interests resulting from their position in the organization The verification procedure and/or backup for the verifier is organised in a way that limits the risk of pressure or provides solutions in case pressure occurs.

#### 4.2 Transparency of verification

The content of the verification are transparent and reproducible (e.g. through a verification check list).

#### 5. Competence of verifiers

The program operator shall establish minimum requirements for the competence of verifier, including (EN ISO 14025, 8.2.2.)

- Knowledge of relevant sector, product and product-related environmental aspects
- Process and product knowledge of the product category
- Expertise in LCA and methodology for LCA work
- Knowledge of relevant standards in the fields of environmental labelling and declarations and LCA (e.g. EN 15804 and supplementing standards)
- Knowledge of the regulatory framework within which requirements for Type III environmental declarations have been prepared (EN ISO 14025, 8.2.2)
- Knowledge of the Type III environmental declarations programme

#### 6. Governance

The responsibility on the dataset file remains with the (original) data supplier (=owner) at all times. Dataset names are always provided by the data supplier. Modifications of dataset may only be undertaken by data supplier.

#### 7. Data Compliance

With the aim to represent a high data quality, data consistency, transparency, and the applicability of data for construction LCA, InData decided to define a compliance level for the data: i. e. a "common data format with a common core of information and rules" [2]. The following core rules for LCA data shall provide a first step to achieve these goals.



The EPD data shall be compliant with the following core rules for InData compliance.

#### 7.1 Data type

The delivered data correspond to the following types.

- "EPD data", i.e. LCA data from EPD according to EN 15804 with programme operator
  - "Generic data", i.e. LCA data compliant to EN 15804 If generic data is delivered, the following information shall be given:
    - o short description on the methodology for the generation of generic data shall be given.
    - o short documentation about quality assurance procedures for generic data is given

#### 7.2 Data format

Data shall be provided in ILCD+EPD data format version v1.2 comprising, as a minimum, the mandatory information listed in 'Table of Definitions of ILCD+EPD Format' [6].

#### 7.3 EN 15804 and complementary rules

The data has to be generated in compliance with EN 15804:2012+A1:2013 (CPEN2018v2) or EN 15804:2012+A2:2019-10 (CP-2020). This comprises also the complementary Product Category Rules developed by product-related CEN Technical Committees and examined by CEN/TC 350 (e.g. EN 16485 Round and sawn timber – Environmental Product Declarations - Product category rules for wood and wood-based products for use in construction).

#### 7.4 Verification of data

All EPD data sets shall be based on independent external verification according to ISO 14025 and ISO 21930 and / or critical review according to ISO 14040/44 is mandatory. The external reviewer has to be verifiably independent from LCA expert and owner of enterprise.

*Note: For generic data a documentation of the data generation and quality assurance processes (e. g. internal verification or other) has to be provided.* 

#### 7.5 Language

All information should preferably be available in English. As a minimum, the 'name of the data set' and the 'technical purpose of product or process', as part of the data format, shall be provided in English. In future, also the classification system shall be given in English. Any other language(s) can be used additionally due to the multi-language capabilities of the data format.

#### 7.6 Validity

According to EN 15804, an EPD is valid for a 5 year period from the date of issue, after which it shall be reviewed and verified (EN 15804). In the InData Network only valid data shall be shown.

Comment: Expired data can be shown in the individual databases of data providers according to their own rules.

#### 7.7 Product Category Structures

The dataset has to be classified within given product category structures.

#### 7.8 Information about Background Data

All datasets shall be based on a specified set of background data. The main source (e.g. ELCD, GaBi, ecoinvent, ...) shall be specified clearly in the data set in machine readable form, i.e. using the unique identifier (shall be addressed in data field "data sources used for this data set" in ILCD+EPD data format). The names and UUIDs of the corresponding source datasets can be retrieved at https://oekobaudat.de/OEKOBAU.DAT/resource/datastocks/cab29b8f-a13c-4c43-bcb1-673b8bdd1ad4/sources

It is recommended to declare in addition the specific version of the background data base.



If data from other sources than indicated were used in the LCA (other background databases, literature data) this information must be given in the dataset, including an explanatory statement. This shall be addressed in data field "Use advice for data set".

#### 7.9 Life Cycle Modules Identifier

The life cycle modules according to EN 15804 shall only be identified with the corresponding number. Therefore, the following modules identifiers are binding.

- A1
- A2
- A3 A1-A3
- A4
- A5
- B1
- B2
- B3
- B4
- B5 B6
- B7
- C1
- C2
- C3 C4
- D

Example: The module 'A3, manufacturing' shall be identified by 'A3' and not by 'module A3' or 'A3 manufacturing'.

Side mark: For other type of products other modules may be applicable.

#### 7.10 Considered Life Cycle Modules

EPD data according to EN 15804:2012+A1:2013 shall comprise modules A1 to A3. EPD data according to EN 15804:2012+A2:2019 shall comprise modules A1 to A3, C1 to C4 and D.

*Note 1: Exemptions according* to EN 15804:2012+A2:2019-10: *Only products which fulfill all three of the conditions below shall be permitted to be exempt from this requirement:* 

- the product or material is physically integrated with other products during installation so they cannot be physically separated from them at end of life, and
- the product or material is no longer identifiable at end of life as a result of a physical or chemical transformation process, and
- the product or material does not contain biogenic carbon.

*Note 2: When providing datasets that do not cover all life cycle modules, information on the missing modules may be supplemented. This may be done e.g. by links to appropriate generic data sets.* 

#### 7.11 Scenarios

If scenarios are declared, a significant description of each scenario shall be given.

#### 7.12 Compliance version

The compliance version is declared within datasets.

7.13 Clear differentiation of impact indicators according to EN 15804:A2 and impact indicators according to older versions of EN 15804



Impact indicators according to EN 15804:2012+A2:2019-10 shall be strictly separated from impact indicators according to older versions of EN 15804.

Note 1: EN 15804:2012+A2:2019-10 prescribes new classification factors for some impact indicators and replaces some impact indicators by completely new ones. As a consequence, results according to EN 15804+A2 cannot be compared with results according to older versions of EN 15804.

Note 2: The clear differentiation of impact indicators is given when the technical framework provided by InData is used.

#### 7.14 Additional environmental indicators

If additional environmental indicators (EN 15804:2012+A2:2019-10, table 4) are declared in the EPD, they may also be declared in the digital dataset. If additional indicators are not declared, they shall be mentioned in the dataset as an entry of "ND".

#### 8. Link to InData compliance rules

Data providers should give a link to the compliance rules as e.g. in this way:

# In Data <Link to InData website>

The data shared through the InData website fulfill all requirements of the InData Compliance Rules. <Link to compliance rules>

#### 9. Data free of charge

All data that are shared via the InData network structure shall be available free of charge.

#### References

#### Standards:

EN 15804:2012+A2:2019-10 Sustainability of construction works - Environmental product declarations -Core rules for the product category of construction products. October 2019

EN 15804:2012+A1:2014 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products 2013

Referenced documents:

- [1] Working Group "International Open Data Network for Sustainable Construction": https://www.indata.network
- [2] "Decalogue": https://www.indata.network/s/2017-07-14 Decalogue v6-894t.pdf
- [3] "Statutes of InData" (18.09.2019)
- [4] "Letter of Intent" (18.09.2019)
- [5] "Summary".pdf (13.10.2017): https://www.indata.network/s/2019-02-19\_InData\_WG\_Infoflyer.pdf
- [6] "Table of definitions of ILCD+EPD data format v1.2" (August 19, 2020): https://www.indata.network/s/2020-08-19 ILCD-EPD CP-2020.pdf
- FAQ: ILCD+EPD format, CPEN2020+A2 InData Compliance (18.09.2019): https://www.indata.network/s/2019-09-18 FAQ ILCD-EPD CPEN2018.pdf
- [8] Documentation for software developers: https://bitbucket.org/okusche/ilcdvalidationtool/
- [9] ILCD-Format: http://epica.jrc.ec.europa.eu/LCDN/developerILCDDataFormat.xhtml
- [10] Self declaration for data providers: <u>https://www.indata.network/s/2019-09-18\_self-declaration\_v001.pdf</u>