

General guide for producing Type III Environmental Product Declarations

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1 Terms and definitions

1.1 Environmental Product Declarations (EPD)

Environmental Product Declarations constitute the environmental effects of construction products throughout the observed life cycle. They are based on product category rules, which define the rules for the preparation of EPDs.

1.2 Product Category Rules (PCR)

Product Category Rules (PCR) set out the principles (such as transport or life cycle phases) for the environmental product declarations.

1.3 Life Cycle Assessment (LCA)

Compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle in accordance with EN ISO 14040 and EN ISO 14044.

2 General Information on producing Environmental Product Declarations

2.1 General

This guideline describes the rules established for the development of Product Category Rules (PCR) and the Environmental Product Declarations (EPD) derived therefrom for construction products. The purpose-specific requirements for the declaration have to be developed accordingly. They are binding for the respective product categories and for the ift-declaration to be developed for that purpose.

The Product Category Rules and Environmental Product Declarations have to be compiled in accordance with the requirements of the latest versions of the standards EN ISO 14020, EN ISO 14025, ISO 21930 and EN 15804.

Life Cycle Assessments (LCAs) have to be drawn up in accordance with the requirements of the latest versions of the standards EN ISO 14040 and EN ISO 14044 and the ift-Guideline for the preparation of LCAs.

2.2 Principles of Environmental Product Declarations

Product-related environmental statements are made on a large scale in marketing and public relations as well as in communication between enterprises. Statements that are difficult to understand should be avoided.

In order to prevent this and to provide more certainty for enterprises and end-customers, the EN ISO 14020 was developed. The following principles apply in accordance with EN ISO 14020 for environmental labels and declarations:

Principle 1: Correct information

Statements about environmental aspects of a product have to be accurate, verifiable and applicable; they must not be misleading.

Principle 2: Avoid trade barriers

Requirements for the allocation of environmental claims and eco-labels must not create unnecessary obstacles to international trade.

Principle 3: Verifiable methods

Statements about environmental aspects of a product have to be based on scientifically verifiable methods which are widely accepted and accessible.

Principle 4: Information passed on to interested parties

In the context of environmental labelling, information about the procedures, methods, criteria and assumptions applied shall be available and provided to all interested parties.

Principle 5: Life cycle consideration

In the development of environmental claims and eco-labels all sections of the product life cycle have to be considered. A life cycle assessment is helpful, but not required.

Principle 6: Avoid obstacles to innovations

Environmental labels shall not be an obstacle to innovations showing the same or better environmental performance.

Principle 7: Limit administrative and information requirements

Any administrative effort and information demands concerning environmental claims about products have to be limited to the extent required.

Principle 8: Open consultation

The processes for the development of environmental labels should include open consultations with the interested parties. (Exception: Labelling according to ISO Type II).

Principle 9: Information for purchasers

Information that is relevant to environmental claims related to a product must be available to the purchaser of a product.

Note

The principles described apply to all types of environmental product declarations according to EN ISO 14020 (Type I, Type II, Type III) and not exclusively to the environmental product declarations (EPD Type III) subsequently dealt with. This notwithstanding, a Life Cycle Assessment is absolutely necessary for a Type III declaration according to EN ISO 14025.

3 Information concerning the preparation of an ift-PCR

The ift-PCR documents have to be prepared according to the ift-PCR template. In addition, the following basic principles apply.

3.1 Information to be placed on the front page

The front page of the PCR has to be realized according to the ift-template and shall contain at least the following elements:

- description of the PCR;
- a note that the document is based on the „Rules for Environmental Product Declarations in accordance with EN ISO 14025 and for construction products in accordance with EN 15804“;
- logo of the ift Rosenheim GmbH;
- date of release;
- declaration number.

3.2 Information to be placed in the header of the PCR

In the header of the ift Product Category Rules at least the following information has to be provided:

- description of the PCR;
- name of the product group;
- declaration number;
- date of release.

3.3 Information to be placed in the imprint

On the last page of the PCR the imprint is added. The following information has to be provided:

- Information about the program holder ift Rosenheim with address, logo and website;
- Information about the layout.

All other modules of the PCR have to be created and described in accordance with the ift-template for the preparation of PCRs.

3.4 Declaration number

The declaration number has to contain the following information:

- the abbreviation „PCR“;
- an abbreviation according to the product group, consisting of two letters (e.g. FE for windows; in German “Fenster”);
- version number;
- date of the initial preparation or last revision

The arrangement of the declaration number must be carried out as indicated in the following example:

PCR-FE-0.1 : 2011 (PCR for windows in the version 0.1 dated 2011)

3.5 Validities

A product category rule is valid for 5 years. Then it has to be re-examined by the ift Advisory Board.

A revised PCR has to be re-submitted to the ift Advisory Board in consideration of step 3 ff (see Clause 3.6).

3.6 Procedure of the preparation of an ift-PCR

Step 1: Preparation of the PCR document

The ift Rosenheim develops the corresponding PCR documents by taking account of the ift -PCR template.

Step 2: Commenting by interested parties

The draft PCR documents are then published on the ift Rosenheim homepage for comments by interested parties, in particular the ift Advisory Board. A corresponding notification will be sent via the ift newsletter and directly by e-mail to the Advisory Board. Directly by e-mail to the Advisory Board. Comments can be made using the comment table provided and are possible within 4 weeks of publication.

Step 3: Submission of the PCR document to the ift Advisory Board

The PCR document must be submitted at least 14 days before the meeting of the ift Advisory Board. The deadlines to be met will be communicated to the respective parties involved in good time.

Step 4: Testing and validation of PCR documents by the ift Advisory Board

The ift Advisory Board discusses and comments on the respective PCR document. A corresponding meeting protocol is to be prepared by the ift Advisory Board so that the respective parties concerned can be informed about the status of the submitted PCR documents no later than 14 days after the meeting date.

Alternatively, the PCR documents can be sent electronically to the ift Advisory Board. In this case, the same applies as in the case of a written objection.

If the PCR document is rejected by the ift Advisory Board, the parties concerned must be informed of the relevant comments of the ift Advisory Board with the status report within 14 days. For queries regarding the comments, a contact person of the ift Advisory Board is to be named to the parties concerned.

In case of a possible rejection, the parties concerned have the possibility to work off the comments of the ift Advisory Board and to resubmit the PCR document to the ift Advisory Board taking into account step 3 (submission of the PCR document to the ift Advisory Board).

Step 5: Validation and release of the PCR documents

After successful validation and approval of the submitted PCR documents by the ift Advisory Board, the ift PCRs are published on the homepage of ift Rosenheim GmbH.

Step 6: Revision

According to the validity of the ift PCR documents, a continuous revision of the PCR has to be performed.

3.7 Approach for verification of the ift-PCR

The PCR check has to be carried out by independent third party experts. The ift Advisory Board has to observe the requirements of the EN ISO 14025 and has to consist of at least the chairperson and two members.

The check of the PCR has to show that:

- the PCR has been developed in accordance with the EN ISO 14025 standards, the EN 15804 and especially in accordance with the ift-PCR template,
- the PCR corresponds to the ift-Guideline NA-01/4.

3.8 Publication

All PCR documents will be published by the ift Rosenheim and free access provided to everyone, once they have been verified by the review panel.

4 Information on producing EPDs by the ift Rosenheim GmbH

According to EN 15804 a complete and comprehensive description of the modules defined in the PCR is required (long recension).

The ift-EPD-documents have to be produced based on the corresponding ift-PCR documents. In addition, the following basic principles apply.

4.1 Content of the EPD

4.1.1 Information to be placed on the front page

The following elements shall be listed on the EPD title page:

- Note: "Environmental product declaration according to ISO 14025 and, for construction products, additionally according to EN 15804",
- Note what type of EPD it is: Model Environmental Product Declaration, Average Environmental Product Declaration, Company Environmental Product Declaration, Specific Environmental Product Declaration,
- In case of EPDs based on a sample EPD: indication that the EPD has been prepared based on a sample EPD.
- The name of the product(s),
- Name of the manufacturer(s) or declaration holder(s),
- Name or logo of the program holder ift Rosenheim GmbH,
- ift declaration number

4.1.2 Information to be placed in the header of the EPD

The following information must be provided in the header of the ift Environmental Product Declaration (EPD):

- Name of the EPD,
- Name of the product group,
- Declaration number,
- Publication date.

4.1.3 Content information

The following modules are to be specified and described according to the ift PCR template Scope:

- Scope,
- Validity
 - o Company EPD (Publication, Last revision, Date of validity)
 - o Sample EPD (Publication, Date of revision if applicable, Date of issue, Date of validity)
- Application,
- Quality Assurance (optional),
- Management systems (optional),
- Additional information,
- Basic substances
- Declarable substances,
- Product manufacturing,
- Processing recommendations Installation,
- Emissions to the environment,
- Reference service life (RSL),
- Post-use options,
- Disposal routes.

4.1.4 LCA content information

The following modules are to be specified and described according to the ift PCR template with regard to the LCA:

- Target,
- Data quality and availability,
- Geographic and temporal system boundaries,
- Study framework/system boundaries,
- Cut-off criteria,
- Life Cycle Inventory Objective,
- Life Cycle Phases,

- Credits,
- Allocation process,
- Co-product allocations,
- Allocations for reuse and recycling,
- Allocations across life-cycle boundaries,
- Secondary materials,
- Inputs,
- Outputs,
- Target of impact assessment,
- Impact categories including waste,
- Evaluation,
- Report,
- Critical review,
- Comparability,
- Communication,
- Verification,
- Literature review.

4.1.5 Information in the imprint

The last page of the EPD must contain the imprint. The following information must be provided:

- Details of the declaration holder (full address),
- Details of the programme holder (full address),
- Details of the life cycle assessor (full address),
- Layout: Company name and year.

4.1.6 Declaration number

The declaration number must contain the following information:

- Abbreviation EPD,
- Abbreviation corresponding to the product group, consisting of at least two letters (e.g. FE for windows),
- Version number.
- In the case of translations, the respective country abbreviation must also be listed (e.g. EPD-MIG-GB-XXX).

The arrangement of the declaration number is to be made as in the following example:
EPD-FE-0.1 (EPD for windows in the version 0.1)

4.1.7 Validity

The validity of the ift-EPD is limited to 5 years according to EN 15804. After 5 years, an independent auditor must review the EPD again.

Relevant changes in the environmental impacts related to the product and/or its manufacture ($\pm 10\%$) may lead to a review with an earlier date.

A revised EPD must be reviewed and verified again, taking into account step 4 et seqq. (see chapter 4.3).

4.2 Procedure for the creation of ift EPDs

Step 1: Preparation of the ift-EPD

The basis for the preparation of the ift-EPD is a complete life cycle assessment of the respective product. Based on the LCA results, the EPD is prepared by the respective person in charge. EPDs must contain at least the modules described in ISO 14025 and building products the modules described in EN 15804 and this ift guideline.

Step 2: Submitting the EPD document for review and approval

The EPD document must be submitted to the ift certification body together with the LCA report for review for accuracy.

Step 3: Review and approval of the EPD documents by an independent expert auditor and/or responsible person of the ift certification body.

The submitted EPD document including the LCA report must be critically reviewed by an external (see 5), independent and expert auditor for accuracy and completeness of data. The review process must ensure that:

- The methods used in carrying out the LCA comply with the international standards ISO 14040 and ISO 14044.
- The methods used in carrying out the LCA are scientifically justified and technically valid.
- The data used are sufficient and appropriate in relation to the objective of the study.
- The analyses take into account the identified limitations and the objective of the study.
- The report is transparent and consistent.

In the event of a rejection of the EPD document by the independent expert assessor, the parties concerned shall be informed of the relevant comments of the assessor with a status report within 14 days. A contact person must be named to the parties concerned for queries regarding the comments.

In case of a possible rejection, the parties concerned have the possibility to process the comments of the verifier and to resubmit the EPD document to ift taking into account step 2 (submission of the EPD document for verification and approval).

After successful verification of the EPD documents by the external verifier, the EPD document is handed over to the respective declaration holder (company/manufacturer/association/...).

Step 4: Re-issue

At the end of the validity period of the ift EPD documents, a reissue of the EPD must be ordered - if desired.

4.3 Participation of interested parties

Interested parties, such as manufacturers, suppliers, associations, NGOs or other independent parties, who are not already involved in the creation process of the ift documents listed below, are also involved in the creation of PCR documents. For this purpose, newly created PCR documents are made available to interested parties on the ift homepage for comment (four-week period). Furthermore, information on newly created PCR documents is provided in the ift newsletter.

As a neutral institute, ift Rosenheim always endeavours to involve interested parties in the development process.

5 Information on the involvement and commissioning of an external verifier for the review of the LCA and EPD documents

5.1 Appointment of external verifiers

An external auditor is appointed by the ift Advisory Board to audit the LCA data and the EPD. This external verifier must be independent and competent and must be named to the respective parties in good time.

The external verifier is selected on the basis of a qualification matrix, which is checked and approved by the ift Advisory Board.

5.2 Qualification of the external verifiers

The external verifier must have at least the following qualifications:

- Preferably a degree in engineering or a degree in natural sciences,
- Appropriate professional experience (at least 2 years) in civil engineering or a related professional field,

- Experience in the independent use of simulation tools for the preparation of life cycle assessments (e.g. LCA for Experts (GaBi), Umberto, Simapro),
- Knowledge of the relevant production sector, the product and the product-related environmental aspects,
- Process and product knowledge in the product category related to the declared product,
- Expertise in the methodology and implementation of life cycle assessments,
- Knowledge of the relevant standards in the field of environmental labelling, declaration and life cycle assessment,
- Knowledge of the regulatory framework under which the requirements for Type III environmental declarations have been developed,
- Knowledge of the Type III environmental declaration programme,
- For additional requirements according to ÖKOBAUDAT, the auditor must know the additional requirements for ÖKOBAUDAT.

5.3 Procedure for the verification of EPDs

5.3.1 Selection of the verifier

The verifier is selected as shown in Figure 1. The following steps are to be observed:

Step 1: ift Rosenheim proposes the verifier to the ift Advisory Board.

Step 2: ift Advisory Board checks and approves the inclusion of verifiers in the verifier pool.

Step 3: The verifier is selected according to qualification based on the PCR on which the EPD is based via the ift document "Test matrix product category".

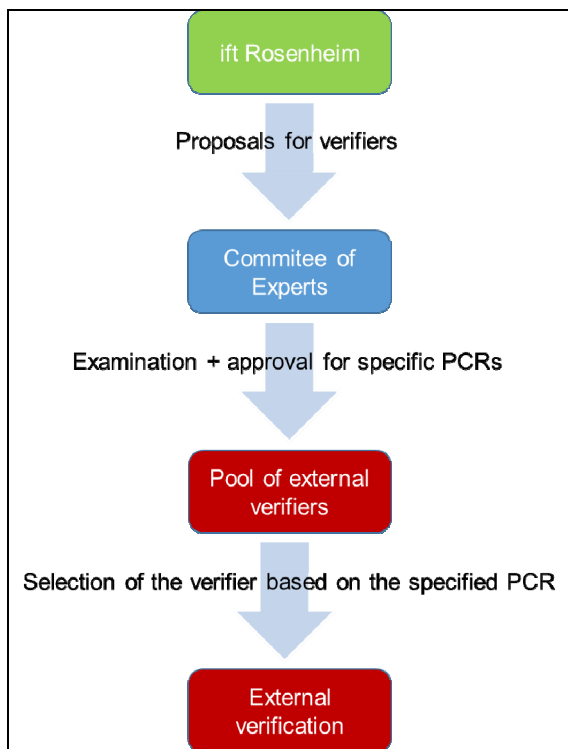


Figure 1 Selection of the verifier

5.3.2 Verification of the EPD

The external verifier of the data from the LCA, the life cycle inventory, the information modules and the additional environmental information must check at least the following facts:

- Compliance with the PCR,
- Compliance with ISO 14040 and ISO 14044,
- compliance with ift guideline NA-01/3,
- that the data evaluation covers coverage, accuracy, completeness, representativeness, consistency, reproducibility, sources and uncertainties,
- Plausibility, quality and accuracy of the LCA data,
- Quality and accuracy of the additional environmental information,
- Quality and accuracy of supporting information,

In addition, the independent verification procedure shall at least confirm whether the Type III environmental declaration complies with:

- ISO 14020 and the corresponding requirements of this international standard,
- ISO 14025 and the corresponding requirements of this international standard,
- EN 15804 and the corresponding requirements of this European standard.

The verification procedure shall be transparent. The independent verifier shall produce a report documenting the verification process while complying with all obligations under the rules of data confidentiality. This report must be available on request.

The verification procedure shall confirm that the information in the Type III environmental declaration accurately reflects the data in the documents on which the declaration is based. The verification procedure must also confirm that this information is correct and scientifically validated.

If sample EPDs have been verified once by the independent verifier, they can be transferred to a manufacturer of the product without further verification, provided that the specified framework conditions have been confirmed by the programme holder.

6 Supplementary requirements

6.1 ÖKOBAUDAT

- Additional requirements according to the document "Basic principles for recording data in OEKOBAUDAT" must be observed (section 3.3). The current document can be obtained at <http://www.oekobaudat.de/datenbank/aufnahme-von-daten.html>
- Requirements for independent verification according to Annex A.3 of "Basic principles for the inclusion of data in OEKOBAUDAT".

6.2 ECO Platform

- Additional requirements according to the document "ECO Platform - Audit and Verification Guidelines for ECO EPD Programme Operators" must be observed. In each case in the currently valid version.
- Requirements for external verification according to Chapter 3 General Requirements for EPD Verification.
- Verification must be carried out using the "Core Checklist for Verification" in Chapter 4.

7 Consideration of relevant changes and innovations

Through cooperation and participation in relevant committees, ift Rosenheim ensures that it is informed about innovations and changes. Accordingly, the documents on which the ift Rosenheim EPD programme is based are updated as required (Figure 2).

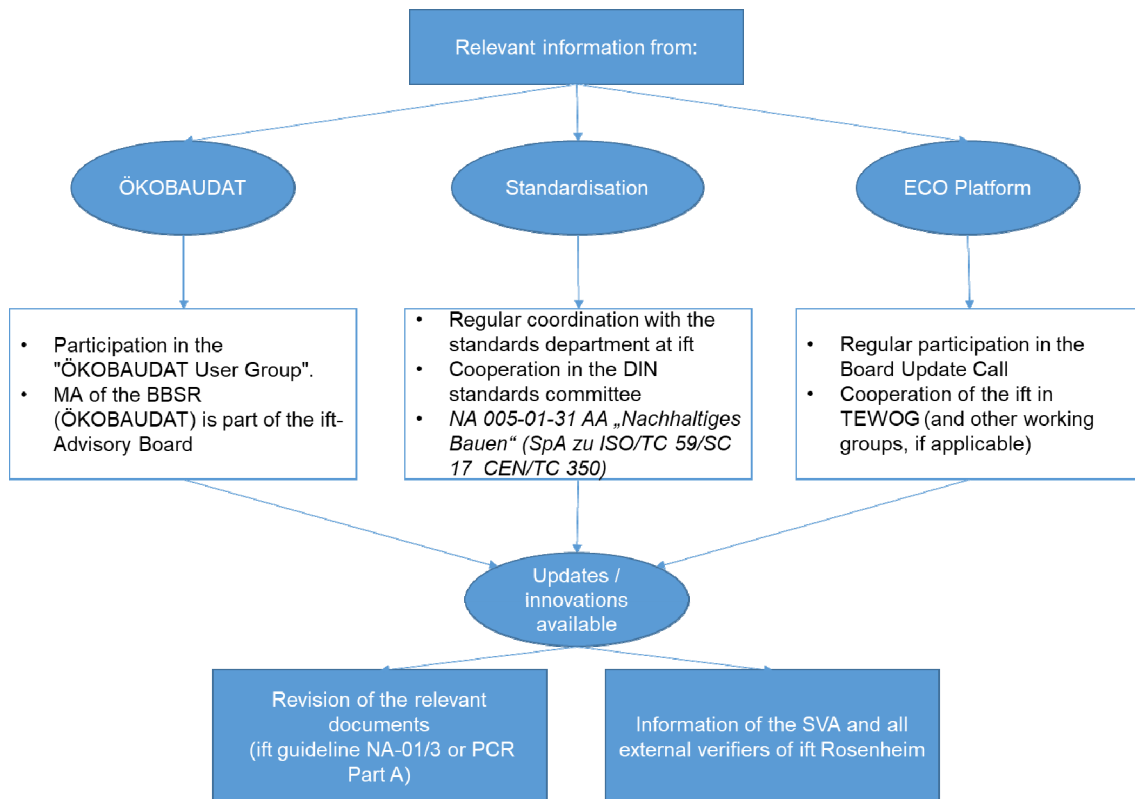


Figure 2 Consideration of relevant changes and innovations

8 Information on convening the ift Advisory Board for the review of ift-PCR documents

For the preparation of an EPD, a life cycle assessment according to EN ISO 14040 and EN ISO 14044 in the respective current version is prepared as a basis. The data on which the LCA is based should be precise, complete and consistent. The LCA must be representative of the products presented in the declaration. The framework and limits of the LCA must be specified.

The following modules shall be described in the life cycle assessment and the associated report:

8.1 Definition of the objective and scope of the study

- Target,
- Data quality and availability,
- Geographical and temporal system boundaries,
- Scope of investigation/system boundaries,

- Cut-off criteria.

8.2 Life cycle inventory

- Target,
- Life cycle phases
- Credits,
- Allocation procedures/allocations of co-products,
- Allocations for reuse and recycling,
- Allocations across life cycle boundaries,
- secondary materials,
- Inputs,
- Outputs.

8.3 Impact assessment

- Target
- Impact categories incl. waste

8.4 Evaluation, presentation of the balances

- Evaluation
- Report
- Critical review

9 Information on ift Advisory Board

9.1 General Information and tasks

The ift Advisory Board (ift SVA) must consist of at least one chairman and two members. The members shall meet the qualification requirements according to chapter 9.2.

Each convened expert must declare his agreement to act on the matter in accordance with the ift certification rules.

The central task of the ift SVA is to review and approve all new and revised PCR documents. The appointed experts must not have been involved in the preparation of the PCR documents to be reviewed. Each convened expert must declare his agreement to act on this matter in accordance with the ift certification rules.

Further tasks of the ift SVA is the advisory function for questions concerning the EPD program and the function as a mediation body in case of complaints or objections from relevant stakeholders.

9.2 Qualification

The verifier appointed by the ift Rosenheim has to meet the following qualification criteria:

- Expertise on the declared products,
- Expertise on product-related environmental impacts and sustainability,
- Technical and sector-specific expertise,
- Expertise in life cycle assessment,
- Expertise in current standardisation.

9.3 Meeting of the ift Advisory Board

The ift Advisory Board meets as required and agreed, but at least once a year. This must be announced to the ift Advisory Board members at least 14 days before the meeting.

10 Information on the involvement and commissioning of an external verifier for the review of the LCA and EPD documents

10.1 Naming

An external auditor is appointed by the ift Advisory Board to audit the LCA data and the EPD. This auditor must be independent and competent and must be named to the respective parties in good time.

For an EPD with additional requirements according to ÖKOBAUDAT and/or Type III environmental declaration for the exchange of information between the offering industry and consumers, an external verifier is appointed from a pool of verifiers nominated by the Committee of Experts. The verifier is selected on the basis of a qualification matrix, which can be handed out on request.

10.2 Qualification

The independent auditor must have at least the following qualifications:

- Preferably a degree in engineering or a degree in natural sciences,

- Appropriate professional experience (at least 2 years) in civil engineering or a related professional field,
- Experience in the independent use of simulation tools for the preparation of life cycle assessments (e.g. LCA for Experts (GaBi), Umberto, Simapro),
- Knowledge of the relevant production sector, the product and the product-related environmental aspects,
- Process and product knowledge in the product category related to the declared product,
- Expertise in the methodology and implementation of life cycle assessments,
- Knowledge of the relevant standards in the field of environmental labelling, declaration and life cycle assessment,
- Knowledge of the regulatory framework under which the requirements for Type III environmental declarations have been developed,
- Knowledge of the Type III environmental declaration programme,
- Knowledge of the supplementary requirements according to Ökobaudat and Eco-Platform.

10.3 Communication and dialogue with the external verifiers

The external verifiers receive the relevant information from the meetings of the ift Advisory Board, as well as any new developments in connection with standardisation, Ökobaudat and Eco Platform (cf. chapter 7). The information is sent in writing to each external verifier. If necessary, all external verifiers are informed about the topics via video conference.

With receipt of the e-mail / participation in the video conference, the external verifier confirms bindingly that he/she has taken note of the information and will comply with it. This is part of the service contract between the external verifier and ift Rosenheim.

11 Rules of the data confidentiality

Confidential data need not be disclosed. Within the scope of a life cycle assessment for the preparation of ift Environmental Product Declarations, a confidentiality agreement must always be concluded between the parties concerned. However, data sovereignty always remains with the respective client for the preparation of LCAs and EPDs.

More detailed regulations regarding the handling and confidentiality of the data can be found in the respective confidentiality agreements to be concluded.

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