

Product category rules Part B –

for facades and roofs made of glass and plastic

General product category rules for environmental product declarations according to EN ISO 14025 and EN 15804

according to the program operation for the preparation of environmental product declarations (EPD) of the ift Rosenheim

Key words: Environmental Product Declaration, Facades, Roofs made of glass, Roofs made of plastic, Life Cycle Assessment, Product Category Rules



Product category rules
PCR-Part B: Facades and
roofs made of glass
and plastic
PCR-FA-3.3 : 2018

Note

The present document is only a rough translation. In case of doubt, the German version applies.

Content

1	Preliminary remark.....	3
2	Product category rules.....	3
2.1	Content.....	3
2.2	Verification, validation and release of the PCR.....	4
3	General product information.....	4
3.1	Product description / Product definition.....	4
3.2	Scope.....	5
3.3	Application.....	5
3.4	Quality assurance and management systems (optional).....	5
3.5	Technical data / performance of the product.....	6
4	Raw materials.....	6
4.1	Information on SVHC according to PCR Part A.....	6
4.2	Additional information.....	6
5	Life cycle assessment.....	7
5.1	Functional unit.....	7
5.2	Declared unit.....	8
5.3	Geographical and time-related system boundaries.....	8
5.4	Scope / System boundaries.....	8
5.5	Reference service life (RSL).....	9
5.6	Information on the product life cycle.....	9
6	Bibliography.....	10

1 Preliminary remark

The product category rules of the ift Rosenheim are divided into two parts and marked accordingly. Part A contains general product category rules, while this part B contains product group-specific rules. The valid versions can be obtained from ift Rosenheim.

The European Standards EN 15804, EN 16485 and prEN 17662 provides basic Product Category Rules for building products, services of all kinds and building processes and in particular for facades. They form the basis to secure that Environmental Product Declarations for building products, services of all kinds and building processes and in particular for facades are derived, verified and displayed in a standardized way.

This PCR provides additional Product Category Rules for Type III Environmental Product Declarations (EPD) in particular for facades. This PCR is therefore supplementing the requirements according to EN 15804, EN 16485 and prEN 17662 and do not replace them.

Note

In EN 16485 and prEN 17662, precise specifications are made for the life cycle assessment and EPD preparation of facades within the various phases of the life cycle; these must be observed.

2 Product category rules

2.1 Content

This PCR defines for specific product groups:

- Rules for the preparation of environmental product declarations (EPD) for facades and roofs made of glass and plastic
 - According to EN 13830
 - According to EN 14782
 - According to ETAG 034 / DIN 18516-1
 - According to ETAG 010
 - According to EN 14915

- Cold-formed profile panels made of metal
- Parts made of steel and aluminum in metal-coated sandwich elements

2.2 Verification, validation and release of the PCR

The committee of experts “ift-EPD and PCR” performs the validation and thus vouches for its correctness.

Interested Parties involved in the PCR assessment:

- Ift Rosenheim

This PCR document with the document number PCR-FA-3.3 was validated and released by the committee of experts (CE) of the ift Rosenheim GmbH. The PCR document is valid according to ISO 14025, EN 15804 and the ift guideline NA-01, five years.

Tracking of the editing / revisions:

Serial No.	Date	Editing comment	CE	Declaration code
1	11/2010	Initial verification and release	released	PCR-FA-1.1 : 2010
2	05/2013	Editorial changes	released	PCR-FA-2.0 : 2013
3	10/2018	Revision of the PCR	released	PCR-FA-3.0 : 2018
4	11/2018	Extension	released	PCR-FA-3.1 : 2018
5	09/2019	Editorial changes	released	PCR-FA-3.1 : 2018
6	10/2021	Content changes	released	PCR-FA-3.3 : 2018

3 General product information

3.1 Product description / Product definition

The declared products must be described.

In doing so, the trade name of the products / product groups (including any product codes) to which the EPD applies must be stated in addition to a general product description. If it is not reasonably possible to name the products / product groups, e.g. in the context of association EPDs, the product description must clearly delimit the products / product groups to which the EPD applies.

Exemplary information:

- Glare frame / wing frame (Type of building material)
- Surface (Treatment/coating)
- Fillings / Glasses
- Non-transparent fillings: (Material and structure have to be specified)
- Gaskets (Material and structure have to be specified)

3.2 Scope

These product category rules (PCR-FA-3.3) can be applied to facades and roofs made of glass and metal according to EN 13830, Self-supporting metal sheet for roofing, external cladding and internal lining according to EN 14782, Cladding for external walls according to ETAG 034 / DIN 18516-1, Solid wood panelling and cladding according to EN 14915 and to self-bearing, transparent roof building components according to ETAG 010.

3.3 Application

Brief description of the scope of the declared products.

Example:

(Ventilated) curtain façade as a wall-replacing element in buildings.

3.4 Quality assurance and management systems (optional)

In order to guarantee the quality assurance of the product, certification systems can be used. Within the framework of the EPD, information can optionally be provided on quality assurance or QMS and EMS.

Exemplary information:

Inspection:

- RAL-GZ 695 RAL Quality Association: Windows, front doors, facades and winter gardens
- RAL-GZ 695 Komo: Windows, front doors, facades and winter gardens

ift product certification

- QM 301 Attack-resistant components: Doors, windows, curtain walls, lattice elements and closures
- QM 320 windows and external doors – manufacturer
- QM 329 curtain facades - manufacturer
- QM 359 VOC emissions from construction products

Management systems

- Quality management DIN EN ISO 9001
- Environmental management DIN EN ISO 14001
- Energy management DIN EN ISO 50001
- Occupational health and safety management BS OHSAS 18001
- Integrated Management system (IMS)

Note

Existing data, e.g. from EMSs (environmental balances), can facilitate data collection in life cycle assessments.

3.5 Technical data / performance of the product

Facades and roofs made of glass and metal according to EN 13830, EN 14782, Cladding for external walls according to ETAG 034 / DIN 18516-1 and ETAG 010 and solid wood panelling and cladding according to EN 14915.

Table 1 Characteristics and performance in the product category

	Characteristics and performance*	Unit
Obligation	Grammage	kg/m ²
Obligation	Weight	kg
Obligation	Gross density (according to EN 16485)	kg/m ³
Obligation	Moisture content (according to EN 16485)	% a ⁻¹
Optional	Building depth	m
Optional	U-value	W/(m ² K)
	If applicable, further	

* The reference product is described in the EPD with the mandatory information. The product characteristics can be given in a range to describe the reference product.

4 Raw materials

4.1 Information on SVHC according to PCR Part A

If products to which this PCR applies contain substances of very high concern (SVHC), these must be indicated in the EPD.

4.2 Additional information

The essential technical information on the product(s) or a reference to it shall be provided for the architect.

When considering the entire life cycle (cradle to grave), the product characteristics must be stated on the basis of the physical properties of the building or a reference to them.

Within the framework of the EPD, further information on building certification systems can be provided.

Example:

The physical properties of the window can be found in the CE label or in the accompanying documentation.

5 Life cycle assessment

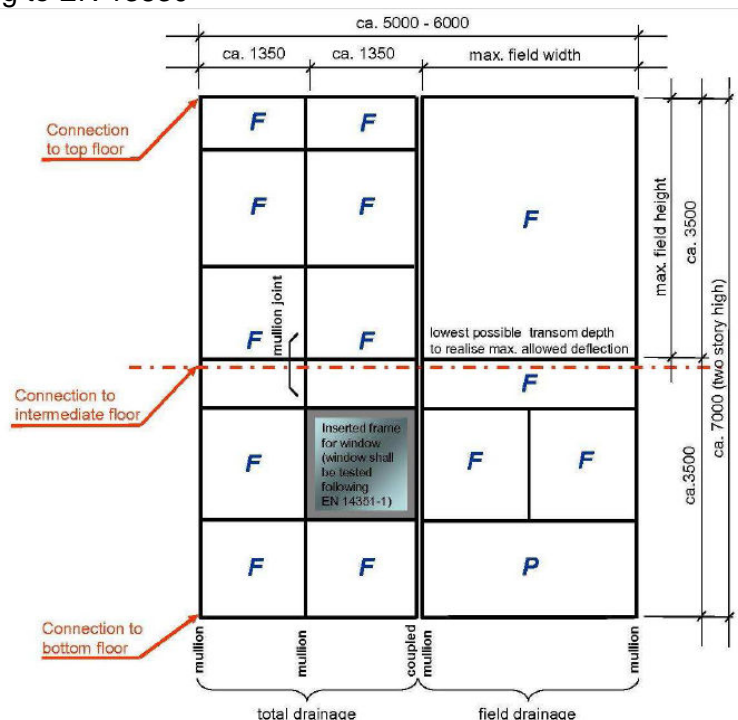
For the preparation of an EPD, a life cycle assessment according to ISO 14040 and ISO 14044 is prepared as a basis. The data on which the life cycle assessment is based should be precise, complete and consistent. This life cycle assessment must be representative of the products presented in the declaration.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

5.1 Functional unit

The functional unit indicates the quantified benefit of a product system used as a comparison unit (see EN 15804).

The following functional unit has to be specified:

- According to EN 13830



- If another unit is chosen, this has to be justified.
 - The functional unit for roofs made of glass is described with the unit of 1 m², because boundary conditions like e.g. snow bearings, glass weight, slope as well as the form of the roof (Shed roof, pyramid, gable roof, etc), are always fitted into the specific environmental conditions.

5.2 Declared unit

Declared products must be described and optionally represented graphically (e.g. CAD drawing). A functional or declared unit to which the EPD data refer must be specified.

The following declared unit must be specified:

- 1 m² of façade / roof made of glass or plastic

Example:

The functional unit for facades or roofs made of glass or plastic is given as an area in m², with a grammage in kg/m² and a construction depth in m, e.g. 1 m² of façade with 25kg.

5.3 Geographical and time-related system boundaries

General information according to PCR Part A.

Example:

Reference period Year 2009-2010

Reference area Europe

5.4 Scope / System boundaries

Example façade or roof made of glass or plastic:

Cradle to Gate according to EN 15804+A1:

The system boundaries include the extraction of raw materials, the manufacture of the façade or roof made of glass or plastic and the assembly of the individual components to the finished packaged façade or roof made of glass or plastic at the factory gate.

Cradle to Gate according to EN 15804+A2:

The system boundaries include the extraction of raw materials, the manufacture of the façade or roof made of glass or plastic and the assembly of the individual components to the finished packaged the façade or roof made of glass or plastic at the factory gate as well the ablation, deposition and material and thermal recycling of the products.

Note:

In the case of construction products and materials that are permitted as exceptions according to EN 15804+A2, the information on disposal may be omitted.

Cradle to Grave according to EN 15804+A1:

The system boundaries also include the use, deconstruction, disposal and material and energy recovery of the façade or roof made of glass or plastic and its individual parts.

Cradle to Grave according to EN 15804+A2:

The system boundaries also include the stage-of-life-phases application and use.

5.5 Reference service life (RSL)

It applies EN 15804.

5.6 Information on the product life cycle

Regulations to be observed during the life cycle:

Exemplary information:

Product manufacture:

- Product standard
- Applicable certification programs

Construction stage:

- Assembly guideline / instruction

Use stage:

- Information on the useful life
- Information on VOC emissions (certification programmes)
- Information on use

End-of-Life stage:

- Recycling initiatives or normal recovery and disposal systems
- Recycling rates in line with the industry standard
- Legal requirements for recovery

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