Product group: Windows, flat roof windows, light domes and light bands
Declaration code: PCR-FE-2.3 : 2018
Date of release: 25.01.2018
Next revision: 25.01.2023

Product category rules Part B –

for windows, flat roof windows, light domes and light bands

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, windows, flat roof windows, light domes, light bands, Life Cycle Assessment, Product Category Rules

Product category rules PCR-Part B: windows, flat roof windows, light domes and light bands

PCR-FE-2.3 : 2018

Note

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

Content

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 17213, EN 16485 and prEN 17662 provide basic Product Category Rules for building products, services of all kinds and building processes and in particular for windows, flat roof windows, light domes and light bands. They form the basis to secure that Environmental Product Declarations for building products, services of all kinds and building processes and in particular for windows, flat roof windows, light domes and light bands 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 partitions. This PCR is therefore supplementing the requirements according to EN 15804, EN 17213, EN 16485 and prEN 17662 and do not replace them.

Note
In EN 17213, EN 16485 and prEN 17662, precise specifications are made for the life cycle assessment and EPD preparation of windows, flat roof windows, light domes and light bands 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 windows according to EN 14351-1 as well as smoke and fire protection windows according to EN 16034.

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-FE-2.3 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-FE-0.1 : 2010
2	09/2011	Revision of the PCR	released	PCR-FE-1.0 : 2011
3	03/2012	Editorial changes	released	PCR-FE-1.1 : 2011
4	01/2013	Revision of the PCR	released	PCR-FE-2.0 : 2013
5	01/2018	Revision of the PCR	released	PCR-FE-2.1 : 2018
6	09/2019	Editorial changes	released	PCR-FE-2.1 : 2018
7	04/2020	Editorial changes	released	PCR-FE-2.1 : 2018
8	10/2021	Content changes	released	PCR-FE-2.3 : 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:
– - Window frame/sash 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)
– Hardware (Specifications of bands, closures and functional hardware according to PCR Locks and hardware)

3.2 Scope

These product category rules (PCR-FE-2.3) can be applied to windows (vertical windows with fixed glazing) according to EN 14351-1. The following system components are included: Profiles, coatings, fillings (transparent and opaque), gaskets, integrated ventilation components and hardware. Furthermore, this PCR is also valid for smoke and fire protection windows according to EN 16034.

3.3 Application

Brief description of the scope of the declared products.

Example:
- Skylights for use in residential and non-residential buildings,
- skylight dome for use in residential and non-residential buildings as well as industrial 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:
RAL quality assurance:
- RAL GZ 695 windows, facades and front doors

ift product certification
- QM 301 Attack-resistant components: Doors, windows, curtain walls, lattice elements and closures
- 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

Windows, flat roof windows (according to EN 14351-1, light domes according to EN 1873 and light bands according to 14963). The following system components are included: Profiles, coatings, fillings (transparent and opaque), gaskets, integrated ventilation components and hardware. Furthermore, this PCR is also valid for smoke and fire protection windows according to EN 16034.

Table 1 Characteristics and performance in the product category

	Characteristics and performance*	Unit
Obligation	Grammage	kg/m²
Obligation	Weight per unit	kg/unit
Obligation	Gross density (EN 16485)	kg/m³
Obligation	Moisture content (EN 16485)	%
Optional	Frame depth, sash depth	m
Optional	U-Value	W/(m²K)
Optional	Total energy transmittance	
Optional	Fire resistance class	-
Optional	Air permeability	m³/(m²h)
	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 based on 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

It applies EN 17213:2020.

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 functional unit must be specified:
– Area in m², e.g. 1 m² of window area

For windows, the following standard size has to be specified:
Standard size of windows according to EN 17213:2020: 1,23 m x 1,48 m, optional 1,48 m x 2,18 m.

For sliding units, the following standard size has to be specified:
Standard size of sliding units according to EN 17213:2020: 3,00 m x 2,18 m

For light domes, the following standard size has to be specified:
Standard size of light domes according to EN 1873: 1,20 m x 1,20 m

For light bands, the following functional unit has to be specified: 1,50m x 8,00 m

For flat roof windows, the following declared unit has to be specified: 1,20 m x 1,20 m

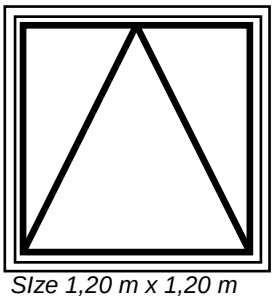
Example: standardized window / reference window

According to EN 14351-1, the functional unit for window systems with all opening types is defined as follows::

Size 1,23 m x 1,48 m

Example: standardized flat roof window:

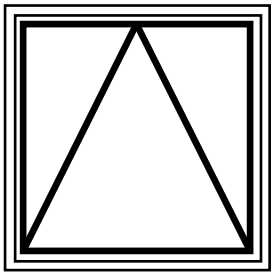
The functional unit for flat roof windows with all opening types is defined as follows:



SIze 1,20 m x 1,20 m

Example: standardized light dome

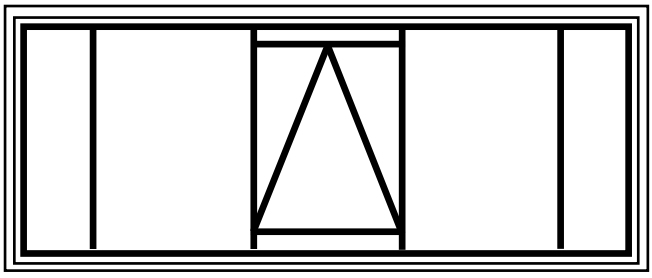
According to EN 1873, the functional unit for light domes of all types is defined as follows:



Size 1,20 m x 1,20 m

Example: standardized light band

The functional unit for roof light bands with all opening types is defined as follows:



Size 1,50 m x 8,00 m inclusive 1 x NRWG 1,20 m x 2,00 m

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 window:

Cradle to Gate according to EN 15804+A1:
The system boundaries include the extraction of raw materials, the manufacture of the window components and the assembly of the individual components to the finished packaged window 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 window components and the assembly of the individual components to the finished packaged window 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 partition 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)

For windows, it applies EN 17213:2020.
For light domes, light bands and flat roof windows, it applies EN 15804.

5.6 Information on the product life cycle

Regulations to be observed during the life cycle:

Exemplary information:

Product manufacture:

- For windows, it applies EN 17213:2020
- For light domes, light bands and flat roof windows, it applies EN 15804.

– Product standard
– Applicable certification programs

Construction stage:

- For windows, it applies EN 17213:2020
- For light domes, light bands and flat roof windows, it applies EN 15804.

– Assembly guideline / instruction

Use stage:

– Information on the useful life

- For windows, it applies EN 17213:2020
- For light domes, light bands and flat roof windows, it applies EN 15804.

– Information on VOC emissions (certification programmes)
– Information on use

End-of-Life stage:

- For windows, it applies EN 17213:2020
- For light domes, light bands and flat roof windows, it applies EN 15804.

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

6 Bibliography

[1] Guideline for planning and execution of the assembly of windows and front doors
Hrsg.: RAL-quality association windows Fenster und Haustüren e.V.
Frankfurt, 2014

[2] EN 16034:2014-10
Pedestrian doorsets, industrial, commercial, garage doors and windows - Product standard, performance characteristics - Fire resistance and/or smoke control characteristics.
Beuth Verlag GmbH, Berlin

[3] EN 14351-1:2006+A2:2016-09
Windows and doors - Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics.
Beuth Verlag GmbH, Berlin

[4] prEN 14351-2:2014-01
Windows and doors - Product standard, performance characteristics - Part 2: Internal pedestrian doorsets without resistance to fire and/or smoke leakage characteristics.
Beuth Verlag GmbH, Berlin

[5] DIN 14963:2006-10
Roof coverings - Continuous rooflights of plastics with or without upstands - Classification, requirements and test methods;
Beuth Verlag GmbH, Berlin

[6] DIN 1873:2014+A1:2016-02
refabricated accessories for roofing - Individual rooflights of plastics - Product specification and test methods;
Beuth Verlag GmbH, Berlin

[7] Research project "EPDs für transparente Bauelemente" (EPDs for transparent building components), ift Rosenheim, 2011

[8] EN 17213:2020
Windows and doors – Environmental Product Decalrations
Product category rules for windows and doors
Beuth Verlag GmbH, Berlin

Publisher

ift Rosenheim GmbH
Theodor-Gietl-Str. 7-9
83026 Rosenheim
Phone: 0 80 31/261-0
Fax: 0 80 31/261 290
E-mail: info@ift-rosenheim.de
www.ift-rosenheim.de

Publication

PCR Windows, flat roof windows, light domes and light bands PCR-FE-2.3
Product Category Rules according to EN ISO 14025 und EN 15804

Bibliographic information of the German Library. The German Library lists this publication in the German national bibliography; detailed bibliographic data can be found on the Internet:
http://dnb.ddb.de

Layout

ift Rosenheim GmbH

ift Rosenheim GmbH
Theodor-Gietl-Straße 7-9
83026 Rosenheim
Phone: +49 (0) 80 31 / 261-0
Fax: +49 (0) 80 31 / 261-290
E-Mail: info@ift-rosenheim.de
www.ift-rosenheim.de