

Product category rules Part B – for sunscreens, blinds and shutters (including shading systems)

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, Sunscreens, Blinds and shutters, Shading
systems, Life Cycle Assessment, Product Category Rules



Note

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

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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.

2 Product category rules

2.1 Content

This PCR defines for specific product groups:

- Rules for the preparation of environmental product declarations (EPD) for
 - Sunscreens, blinds and shutters according to DIN EN 13120, DIN EN 13659, DIN EN 13561 or DIN EN 14501.
 - Smoke and fire protection closures according to prEN 12101-1 or DIN EN 16034 in combination with the product standards according to DIN EN 14351 for exterior windows and doors or DIN EN 13241 for gates.

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
- MHZ Hachtel GmbH & Co. KG

This PCR document with the document number PCR-SS-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	07/2013	Initial verification and release	released	PCR-SS-1.0 : 2013
2	07/2018	Editorial changes	released	PCR-SS-1.1 : 2013
3	11/2018	Revision of the PCR	released	PCR-SS-2.0 : 2018
4	09/2019	Editorial changes	released	PCR-SS-2.0 : 2018
5	09/2020	Revision of the PCR	released	PCR-SS-2.1 : 2020
6	10/2021	Editorial changes	released	PCR-SS-2.3 : 2020

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:

- Blinds, external venetian blinds, roller blinds, vertical blinds, folding blinds, awning, privacy and glare protection, insect protection
- Hanging (e.g. free hanging)
- Guidance (e.g. guided)
- Material (e.g. raffable lamellae, stretched cloth, etc.)
- Manually or power operated

3.2 Scope

These product category rules (PCR-SS-2.3) can be applied to sunscreens and closures according to DIN EN 13120, DIN EN 13561 or DIN EN 14501 as well as smoke and fire protection closures according to prEN 12101-1 or DIN EN 16034, independent on the used material.

- Blinds, external venetian blinds: free hanging, with non-raffable lamellae
- Roller blind: free hanging, laterally guided with stretched cloth
- Vertical blinds: free hanging, guided above and below and with inclined top rail,
- Folding blinds and pleated blinds: free hanging, guided, freely movable, tensed,
- Roman blinds, roman curtains: free hanging, guided, with cord pull,
- Panel curtains: hanging, free falling and movable, with sling bar or cord pull,
- awnings: rollable and foldable, guided and free hanging,
- visual and glare protection: self-adhesive, free hanging,
- Insect protection: hanging, with stretched tissue, free falling,
- Smoke and fire protection curtains: laterally guided, free falling,
- Singular parts of a sunscreen (e.g. cloth, lamella, etc.)
- Integration of movable sunscreen systems in the space between the panes.

In every case independent, whether it is manually or power operated.

3.3 Application

Brief description of the scope of the declared products.

Example:

Sunscreens or closures are used in residential as well as in 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:

ift product certification

- QM 301 Attack-resistant building components: doors, windows, curtain facades, lattice element, blinds and shutters
- QM 302 Smoke protection closures
- QM 308 Coated glass products for thermal and solar protection
- 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

- Internal blinds or sunscreens according to DIN EN 13120 (see table 1.1)
- External blinds or sunscreens according to DIN EN 13659 (see table 1.2)
- Awnings or insect protection according to DIN EN 13561 (see table 1.3)
- Glare protection according to DIN EN 14501 (see table 1.4)
- Smoke protection curtains according to DIN EN 12101-1 (see table 1.5)
- Smoke and fire protection closures according to DIN EN 16034 (see table 1.6 and table 1.7)
- Movable sunscreen systems integrated in the space between the panes according to ift-Guideline VE-07/3 (see table 1.8)

Table 1.1 Extract of properties and performances according to DIN EN 13120 (interior sunscreen or blind)

	Characteristics and performance*	Unit
Obligation	Material thickness	m
Optional	Grammage	kg/m ²
Optional	Protection of strangulation	-
Optional	Dimensions (height, length, width)	mm
Optional	Color resistance class	-
Optional	Permanent function	cycles
Optional	Dimension stability	%
Optional	Radiation transmittance	-
Optional	Radiation reflectance	-
Optional	Additional thermal resistance	m ² K/W
Optional	Heat dissipation rate	-
Optional	Thermal and visual comfort (see table 1.4, EN 14501)	-
	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.

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Table 1.2 Extract of properties and performances according to DIN EN 13659 (external sunscreen or blind) and DIN EN 13561 (awnings and insect protection)

	Characteristics and performance*	Unit
Obligation	Grammage	kg/m ²
optional	Material thickness	m
optional	Wind resistance class	-
optional	Dimensions (height, length, width)	mm
optional	(additional) heat transmission rate	W/m ² K
optional	Total energy transmittance (g-value)	-
optional	Permanent function	cycles
optional	Resistance against pressure or snow load	N/m ²
optional	Thermal and visual comfort (see table 1.4, EN 14501)	-
	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.

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Table 1.4 Extract of properties and performances according to DIN EN 14501 (glare protection)

	Characteristics and performance*	Unit
Obligation	Grammage	kg/m ²
optional	Material thickness	m
optional	Dimensions (height, length, width)	mm
optional	Total energy transmission rate (g_{tot} -value)	-
optional	secondary heat dissipation rate to the inside	-
optional	Protection against direct Transmission	-
optional	(Light-) transmission rate	-
optional	Blackout performance	-
optional	Glare protection	-
optional	Night vision protection	-
optional	visual contact to the outside	-
optional	Daylight use	-
optional	Color rendering index	-
	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.

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Table 1.5 Extract of properties and performances according to DIN EN 12101-1 (smoke protection curtains)

	Characteristics and performance*	Unit
Obligation	Grammage	kg/m ²
optional	Fabric thickness	m
optional	Dimensions (height, length, width)	mm
optional	Openings, columns, free areas	mm
optional	Smoke apron type	-
optional	Durability (Self-closing)	cycles
optional	Fire resistance class	-
optional	Smoke tightness	h/m ³
optional	Permeability	m ³ /h
optional	Response delay	s
optional	Extension time	mm
	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.

Table 1.6 Extract of properties and performances according to DIN EN 16034 (Fire protection and/or smoke protection closures) in combination with DIN EN 14351 (windows and doors)

	Characteristics and performance*	Unit
Obligation	Grammage	kg/m ²
optional	Material thickness	m
optional	Dimensions (height, length, width)	mm
optional	Fire resistance class	-
optional	Smoke protection class	-
optional	Durability (Self-closing)	cycles
optional	Impact resistance class	-
optional	Airborne sound insulation index	dB
optional	Heat transfer coefficient (U-value)	W/m ² K
optional	Air permeability	m ³ /m ² h
	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.

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Table 1.7 Extract of properties and performances according to DIN EN 16034 (Fire protection and or smoke protection closures) in combination with DIN EN 13241 (doors)

	Characteristics and performance*	Unit
Obligation	Grammage	kg/m ²
optional	Material thickness	m
optional	Dimensions (height, length, width)	mm
optional	Opening dimensions	mm
optional	Fire resistance class	-
optional	Smoke protection class	-
optional	Fire performance	-
optional	Operating powers	-
optional	Safe opening	-
optional	Durability (Self-closing)	cycles
optional	Resistance against penetrating water	-
optional	Wind resistance class	-
optional	direct airborne sound insulation	dB
optional	Heat transfer coefficient (U-value)	W/m ² K
optional	Air permeability	m ³ /m ² h
	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.

Tabelle 1.8 Extract of properties and performances according to ift-Guideline VE-07/3 (movable sunscreen systems integrated in the space between the panes)

	Characteristics and performance*	Unit
Obligation	Grammage	kg/m ²
optional	Total thickness	m
optional	structure	mm
optional	Dimensions (height, length, width)	mm
optional	Moisture absorption factor	-
optional	Gas loss rate	% a ⁻¹
optional	Gas concentration	%
optional	Durability sunscreen	cycles
optional	Total energy transmittance (g-value)	-
optional	Heat transfer coefficient (U-value)	W/m ² K
optional	Light transmission rate	-
optional	direct airborne sound insulation	dB
optional	Thermal and visual comfort (see table 1.4, EN 14501)	-
	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 interior sunscreen 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).

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:

- Area in m², e.g. 1 m² of area

Example:

The functional unit for sunscreens or closures is given as an area in m², with an area weight in kg.

According to DIN EN 14351-1, a window has a standardized size of 1.23m x 1.48 m. Because of the dependence, this size has also to be chosen for sunscreens or closures. If another unit is chosen, it has to be justified.

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 sunscreen:

Cradle to Gate according to EN 15804+A1:

The system boundaries include the extraction of raw materials, the manufacture of the sunscreen and the assembly of the individual components to the finished packaged sunscreen 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 sunscreen and the assembly of the individual components to the finished packaged sunscreen 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 sunscreen 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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