Product group:	components for smoke and heat control systems
Declaration code:	PCR-RW-2.3 : 2018
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Product category rules Part B –

for components for smoke and heat control 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, Components for smoke and heat control systems, Life Cycle Assessment, Product Category Rules

Product category rules
PCR-Part B:
Components for smoke and heat control systems

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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.

2 Product category rules

2.1 Content

This PCR defines for specific product groups:

Rules for the preparation of environmental product declarations (EPD) for:

- Components for smoke and heat control systems according to EN 12101 and/or ISO 21927:
  - Part 1: smoke barriers
  - Part 2: natural smoke and heat exhaust ventilators
  - Part 3: powered smoke and heat exhaust ventilators
  - Part 6: pressure differential systems
  - Part 7: smoke extraction lines
  - Part 8: smoke control dampers
  - Part 9: control panels
  - Part 10: Energy supplies
- Components existing of power operated mechanisms including the electrical or pneumatical drives or fans for operating of smoke barriers, smoke and heat control systems, smoke control dampers, vent dampers for the installation in the building exterior (e.g. façade or roof), in the building interior (e.g. fire protection walls, escape and rescue routes, fire distribution) or in smoke extraction lines including all necessary energy supplies and control panels and system-bound articles (Triggering devices, operating elements, sensors).

Manually operated windows are covered by the PCR for windows.

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
- Aumüller Aumatic GmbH

This PCR document with the document number PCR-RW-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	12/2012	Initial verification and release	released	PCR-RW-1.0 : 2012
2	01/2013	Revision of the PCR	released	PCR-RW-1.1 : 2013
3	01/2018	Revision of the PCR	released	PCR-RW-2.1 : 2018
4	09/2019	Editorial changes	released	PCR-RW-2.1 : 2018
5	10/2021	Content changes	released	PCR-RW-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:

- Components of smoke and heat control systems according to EN 12101 and/or ISO 21927:
  - Part 1: smoke barriers
  - Part 2: natural smoke and heat exhaust ventilators
  - Part 3: powered smoke and heat exhaust ventilators
  - Part 6: pressure differential systems
  - Part 7: smoke extraction lines
  - Part 8: smoke control dampers
  - Part 9: control panels
  - Part 10: Energy supplies

- Components existing of power operated mechanisms including the electrical or pneumatical drives or fans for operating of smoke barriers, smoke and heat control systems, smoke control dampers, vent dampers for the installation in the building exterior (e.g. façade or roof), in the building interior (e.g. fire protection walls, escape and rescue routes, fire distribution) or in smoke extraction lines including all necessary energy supplies and control panels and system-bound articles (Triggering devices, operating elements, sensors).

3.2 Scope

These product category rules (PCR-RW-2.3) can be applied to:

- Controls, energy suppliers, components and articles for smoke and heat control systems as well as systems for natural ventilation of buildings like for example electrical or pneumatical drives for facade or roof windows, smoke protection curtains, ventilation and smoke control dampers, fire gas ventilators, pressure differential systems, air duct systems.

3.3 Application

Brief description of the scope of the declared products.

Example:
A smoke and heat control system exists of components selected to work together to dissipate smoke and heat to create a stable low-smoke layer of warm gases above cold, clean air.

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 302 smoke protection closures

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

Controls, energy suppliers, components and articles for smoke and heat control systems as well as systems for natural ventilation of buildings like for example electrical or pneumatical drives for facade or roof windows, smoke protection curtains, ventilation and smoke control dampers, fire gas ventilators, pressure differential systems, air duct systems.

Table 1 Characteristics and performance in the product category

	Characteristics and performance*	Unit
Obligation** [2]	Weight per unit	kg/unit
Obligation** [1]	Performance per unit	W/unit
Obligation** [2,3]	Diameter per unit	mm/unit
Obligation** [1]	Stroke (pneumatically)	mm in 1 min
Optional	Intervall	Time (min, sec, etc.)
Optional	Width, height	Length (mm, cm, etc.)
	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.

** The obligation information is referred to the connected declared unit ([1] Watt, [2] units, [3] mm).

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 flat glass 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:

- Power consumption in watts per drive or control unit (electrical)
- one unit of cylinder, valve or alarm station (pneumatical)
- one mm of cylinder (pneumatical)

Example:
The functional unit for a smoke and heat control system is given as one unit of cylinder by a grammage in kg and a diameter in mm.

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 smoke and heat control system:

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