

Product category rules Part B – for reinforcement and fastening 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, Reinforcing steel, Fastening systems, Life Cycle Assessment, Product Category Rules



Product category rules
PCR-Part B:
Reinforcement and
fastening systems
PCR-BS-2.3 : 2018

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.

The European Standards EN 15804 and prEN 17662 provide basic Product Category Rules for building products, services of all kinds and building processes and in particular for reinforcement and fastening systems. They form the basis to secure that Environmental Product Declarations for building products, services of all kinds and building processes and in particular for reinforcement and fastening systems 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 reinforcement and fastening systems. This PCR is therefore supplementing the requirements according to EN 15804 and prEN 17662 and do not replace them.

Note

In prEN 17662, precise specifications are made for the life cycle assessment and EPD preparation of reinforcing steel 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:
 - Building products made of concrete steel according to DIN 488 and / or reinforcing steel according to EN 10080 and / or general technical approval (BAZ) or european technical approvals (ETA /ETB) according to BauPVO.
 - Steel or aluminum structures according to EN 1090-1
 - Reinforcement and fastening systems for concrete made of carbon or fiberglass bars in combination with resins
 - Reinforcement and fastening systems for concrete made of carbon or fiberglass mats

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-BS-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	01/2013	Initial verification and release	released	PCR-BS-1.1 : 2013
2	01/2018	Revision of the PCR	released	PCR-BS-2.1 : 2018
3	09/2019	Editorial changes	released	PCR-BS-2.1 : 2018
4	10/2021	Content changes	released	PCR-BS-2.3 : 2018
5	12/2021	Extension	released	PCR-BS-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:

- Building products made of reinforcing steel according to DIN 488
- and / or EN 10080 and or general technical approval
- or European technical approvals (ETA) respectively (ETB) according to BauPVO
- reinforcement or fastening systems for concrete made of carbon fiber or fiberglass bars in combination with resins
- reinforcement or fastening systems for concrete made of carbon fiber or fiberglass mats

3.2 Scope

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

- Reinforcing steel bars for reinforced concrete construction according to DIN 488-2
- Concrete steel in coils, steel wire according to DIN 488-3
- Welded fabrics according to DIN 488-4
- Lattice girders according to DIN 488-5
- Concrete steel and/or lattice girders according to general technical approval and/or European technical approval /ETA) respectively (ETB) according to BauPVO and/or EN 10080
- Steel or aluminum structures according to EN 1090-1
- reinforcement or fastening systems for concrete made of carbon fiber or fiberglass bars in combination with resins
- reinforcement or fastening systems for concrete made of carbon fiber or fiberglass mats

3.3 Application

Brief description of the scope of the declared products.

Example:

Products made of reinforcing steel for the reinforcement of building products made of concrete steel

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.

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

- Reinforcing steel bars for reinforced concrete construction according to DIN 488-2
- Concrete steel in coils, steel wire according to DIN 488-3
- Welded fabrics according to DIN 488-4
- Lattice girders according to DIN 488-5

- Concrete steel and/or lattice girders according to general technical approval and/or European technical approval /ETA) respectively (ETB) according to BauPVO and/or EN 10080
- reinforcement or fastening systems for concrete made of carbon fiber or fiberglass bars in combination with resins
- reinforcement or fastening systems for concrete made of carbon fiber or fiberglass mats

Table 1 Characteristics and performance in the product category

	Characteristics and performance*	Unit
Obligation	Gross density	kg/m ³
	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.

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 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:

- Mass in kg, e.g. 1 kg of reinforcement and fastening system

Example:

The functional unit for reinforcement and fastening system is given as a mass in kg, with a gross density in kg/m³.

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 reinforcement and fastening system:

Cradle to Gate according to EN 15804+A1:

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