
Hidroizolacijski trakovi - Okoljske deklaracije za proizvode - Pravila za kategorije proizvodov za ojačene bitumenske, polimerne in elastomerne trakove za tesnjenje streh - 1. del: Pristop "od zibelke do groba" in modul D

Flexible sheets for waterproofing - Environmental product declarations - Product category rules for reinforced bitumen, plastic and rubber flexible sheets for roof waterproofing - Part 1: Cradle to grave and module D

Abdichtungsbahnen - Umweltproduktdeklaration - Produkt-Kategorie-Regeln für Bitumenbahnen mit Trägereinlage, Kunststoff- und Elastomerbahnen für Dachabdichtungen - Teil 1: Wiege bis Bahre und Modul D

<https://standards.itech.ai/catalog/standards/sist/16627399-608d-4ae5-8776-63332e1016/kist-fpr-en-17388-1-2023>

Feuilles souples d'étanchéité - Déclarations environnementales sur les produits - Règles spécifiques des catégories de produits pour feuilles bitumineuses armées, feuilles plastiques et élastomères pour l'étanchéité de toiture - Partie 1: Du berceau à la tombe avec module D

Ta slovenski standard je istoveten z: FprEN 17388-1

ICS:

13.020.20	Okoljska ekonomija. Trajnostnost	Environmental economics. Sustainability
91.060.20	Strehe	Roofs
91.100.50	Veziva. Tesnilni materiali	Binders. Sealing materials

kSIST FprEN 17388-1:2023

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

FINAL DRAFT
FprEN 17388-1

April 2023

ICS 91.100.50

English Version

Flexible sheets for waterproofing - Environmental product declarations - Product category rules for reinforced bitumen, plastic and rubber flexible sheets for roof waterproofing - Part 1: Cradle to grave and module D

Feuilles souples d'étanchéité - Déclarations environnementales sur les produits - Règles spécifiques des catégories de produits pour feuilles bitumineuses armées, feuilles plastiques et élastomères pour l'étanchéité de toiture - Partie 1: Du berceau à la tombe avec module D

Abdichtungsbahnen - Umweltproduktdeklaration - Produkt-Kategorie-Regeln für Bitumenbahnen mit Trägereinlage, Kunststoff- und Elastomerbahnen für Dachabdichtungen - Teil 1: Wiege bis Bahre und Modul D

This draft European Standard is submitted to CEN members for formal vote. It has been drawn up by the Technical Committee CEN/TC 254.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword	4
Introduction	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	7
4 Abbreviations	8
5 General aspects.....	8
5.1 Objective of the PCR.....	8
5.2 Types of EPD with respect to life cycle stages covered	8
5.3 Comparability of EPD for construction products	8
5.4 Additional environmental information	8
5.5 Ownership, responsibility and liability for the EPD.....	8
5.6 Communication formats.....	8
6 Product category rules for LCA	8
6.1 Product category	8
6.2 Life cycle stages and information modules to be included	9
6.2.1 General.....	9
6.2.2 A1-A3, product stage, information modules	9
6.2.3 A4-A5, construction process stage, information modules	9
6.2.4 B1-B5, use stage, information modules related to the building fabric.....	9
6.2.5 B6-B7, use stage, information modules related to the operation of the building	9
6.2.6 C1-C4, end-of-life stage, information modules.....	9
6.2.7 D, benefits and loads beyond the system boundary, information module	9
6.3 Calculation rules for the LCA	9
6.3.1 Functional or declared unit.....	9
6.3.2 Functional unit.....	9
6.3.3 Declared unit	10
6.3.4 Reference service life (RSL)	10
6.3.5 System boundaries	10
6.3.6 Criteria for the exclusion of inputs and outputs (cut-off criteria)	11
6.3.7 Selection of data	11
6.3.8 Data quality requirements	12
6.3.9 Developing product level scenarios.....	13
6.3.10 Units.....	17
6.4 Inventory analysis	17
6.4.1 Collecting data.....	17
6.4.2 Calculation procedures.....	17
6.4.3 Allocation of input flows and output emissions	17
6.4.4 Information on biogenic carbon content.....	17
6.5 Impact assessment	17
7 Content of the EPD	17
7.1 Declaration of general information.....	17
7.2 Declaration of environmental indicators derived from LCA.....	18
7.2.1 General.....	18

7.2.2	Rules for declaring LCA information per module	18
7.2.3	Indicators describing environmental impacts based on life cycle impact assessment (LCIA)	18
7.2.4	Indicators describing resource use and environmental information based on life cycle inventory (LCI)	18
7.2.5	Information on biogenic carbon content	18
7.3	Scenarios and additional technical information	18
7.3.1	General	18
7.3.2	Construction process stage	18
7.3.3	B1-B7 Use stage	19
7.3.4	End-of-life	19
7.4	Additional information on release of dangerous substances to indoor air, soil and water during the use stage	19
7.4.1	Indoor air	19
7.4.2	Soil and water	19
7.5	Aggregation of information modules	19
8	Project report	19
8.1	General	19
8.2	LCA-related elements of the project report	19
8.3	Documentation on additional information	20
8.4	Data availability for verification	20
9	Verification and validity of an EPD	20
Annex A (normative)	Extension rules	21
A.1	General	21
A.2	Rules for plastic sheets according to EN 13956	21
A.2.1	General	21
A.2.2	Scenario 1: Sheets without reinforcement	22
A.2.3	Scenario 2: Reinforced sheets	22
A.2.4	Scenario 3: Sheets with backing	23
A.2.5	Scenario 4: Combination	23
A.3	Rules for reinforced bitumen sheets according to EN 13707	24
A.4	Rules for rubber sheets according to EN 13956	24
Annex B (informative)	EPD scope and practice	25
B.1	Introduction	25
B.2	Specific EPD	25
B.3	Generic EPD	25
B.3.1	Average EPD	25
B.3.2	Worst case EPD	25
B.3.3	Sector EPD	25
Bibliography	26

FprEN 17388-1:2023 (E)**European foreword**

This document (FprEN 17388-1:2023) has been prepared by Technical Committee CEN/TC 254 “Flexible sheets for waterproofing”, the secretariat of which is held by NEN.

This document is currently submitted to the Formal Vote.

EN 17388, *Flexible sheets for waterproofing - Environmental product declarations - Product category rules for reinforced bitumen, plastic and rubber flexible sheets for roof waterproofing* consists of two parts:

- *Part 1: Cradle to grave and module D;*
- *Part 2: Cradle to gate with options, modules C1-C4 and module D.*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[kSIST FprEN 17388-1:2023](https://standards.iteh.ai/catalog/standards/sist/16627399-608d-4ae5-8776-67332ace1946/ksist-fpren-17388-1-2023)

<https://standards.iteh.ai/catalog/standards/sist/16627399-608d-4ae5-8776-67332ace1946/ksist-fpren-17388-1-2023>

Introduction

CEN/TC 254 has decided to provide this European Standard in 2 parts. The scope of these different parts is based on the different types of environmental product declarations (EPD) identified by EN 15804:2012+A2:2019. This will avoid misinterpretation in the market about the EPD scope and content.

NOTE 1 The clauses and subclauses, with the exception of the annexes, are corresponding with the clauses and subclauses of EN 15804:2012+A2:2019.

NOTE 2 For further information, see Annex B.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[kSIST FprEN 17388-1:2023](https://standards.iteh.ai/catalog/standards/sist/16627399-608d-4ae5-8776-67332ace1946/ksist-fpren-17388-1-2023)

<https://standards.iteh.ai/catalog/standards/sist/16627399-608d-4ae5-8776-67332ace1946/ksist-fpren-17388-1-2023>

FprEN 17388-1:2023 (E)

1 Scope

This document provides product category rules (PCR) for the assessment of the environmental performance of reinforced bitumen, plastic and rubber flexible sheets for which the intended use is roof waterproofing.

NOTE The reference product standards are EN 13707 and EN 13956.

This document is intended to be used for the development and issue of a cradle to grave and module D EPD using:

- either generic data and system generic data;
- or
- specific data and system specific data.

This document includes requirements and rules to:

- define the indicators to be declared and the way in which they are collected and reported;
- describe which stages of a product's life cycle are considered in the EPD and which processes are to be included in the life cycle stages;
- include the rules for calculating the life cycle inventory (LCI) and the life cycle impact assessment (LCIA) underlying an EPD, including the specification of the quality of the applied data;
- define generic data and system generic data which are to be used for an EPD.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13707, *Flexible sheets for waterproofing - Reinforced bitumen sheets for roof waterproofing - Definitions and characteristics*

EN 13956, *Flexible sheets for waterproofing - Plastic and rubber sheets for roof waterproofing - Definitions and characteristics*

EN 15804:2012+A2:2019¹, *Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products*

¹ As impacted by EN 15804:2012+A2:2019/AC:2021.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15804:2012+A2:2019 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

average data

data representative of a product, product group or construction service, provided by one or more manufacturers

Note 1 to entry: Manufacturer refers to the product stage.

[SOURCE: EN 15804:2012+A2:2019, 3.3, modified – “suppliers” replaced by “manufacturers”]

3.2

generic data

surrogate data used if no specific data is available

Note 1 to entry: Generic system data is surrogate data related to the intended use.

3.3

product

item manufactured or processed for incorporation in construction works

Note 1 to entry: Product refers to all products of the roof waterproofing system.

[SOURCE: EN 15804:2012+A2:2019, 3.6, modified – “construction product” replaced by “product”]

3.4

product group

products with similar intended uses, the boundaries of which are defined by the EPD owner

3.5

roof waterproofing system

assembly of one or more sheets in its applied and jointed form to prevent the passage of water from one plane to another, which has certain performance characteristics, to be assessed as a whole, to be used in the roof of a building

Note 1 to entry: Roofs used for parking of vehicles and roof gardens are included.

3.6

specific data

data representative for a product, product group or construction service, provided by one manufacturer

Note 1 to entry: Manufacturer refers to the product stage.

[SOURCE: EN 15804:2012+A2:2019, 3.31, modified – “supplier” replaced by “manufacturer”]

FprEN 17388-1:2023 (E)

4 Abbreviations

For the purposes of this document, the abbreviations given in EN 15804:2012+A2:2019 apply.

5 General aspects

5.1 Objective of the PCR

As in EN 15804:2012+A2:2019, in addition:

This document defines the requirements on information, data and environmental indicators that shall be included in an environmental product declaration (EPD) for a cradle to grave and module D EPD, for:

- roof waterproofing systems with reinforced bitumen flexible sheets for roof waterproofing according to EN 13707;
- or
- roof waterproofing systems with plastic and rubber flexible sheets for roof waterproofing according to EN 13956.

5.2 Types of EPD with respect to life cycle stages covered

As in EN 15804:2012+A2:2019, in addition:

The life cycle assessment (LCA) based information in an EPD shall cover (see EN 15804:2012+A2:2019, Figure 1) the life cycle of a product according to the system boundary (see 6.3.5). This cradle to grave and module D EPD covers the product stage (module A1-A3), construction process stage (module A4-A5), use stage (module B1-B7), end-of-life stage (module C1-C4) and benefits and loads beyond the system boundary (module D) and shall be based on a functional unit or declared unit.

5.3 Comparability of EPD for construction products

As in EN 15804:2012+A2:2019, in addition:

The cradle to grave and module D analysis shall integrate all relevant requirements to ensure the technical performances of the products in the end-use.

5.4 Additional environmental information

As in EN 15804:2012+A2:2019 shall apply.

5.5 Ownership, responsibility and liability for the EPD

As in EN 15804:2012+A2:2019 shall apply.

5.6 Communication formats

As in EN 15804:2012+A2:2019 shall apply.

6 Product category rules for LCA

6.1 Product category

The product category referred to in this document includes roof waterproofing systems with reinforced bitumen, plastic and rubber flexible sheets for roof waterproofing according to EN 13707 and EN 13956.

6.2 Life cycle stages and information modules to be included

6.2.1 General

All life cycle stages shall be reported.

6.2.2 A1-A3, product stage, information modules

As in EN 15804:2012+A2:2019 shall apply.

6.2.3 A4-A5, construction process stage, information modules

As in EN 15804:2012+A2:2019 shall apply.

6.2.4 B1-B5, use stage, information modules related to the building fabric

As in EN 15804:2012+A2:2019 shall apply.

6.2.5 B6-B7, use stage, information modules related to the operation of the building

As in EN 15804:2012+A2:2019, in addition:

Modules B6-B7 (use stage, information modules related to the operation of the building) have no influence on the roof waterproofing systems and are therefore not relevant.

6.2.6 C1-C4, end-of-life stage, information modules

As in EN 15804:2012+A2:2019 shall apply.

6.2.7 D, benefits and loads beyond the system boundary, information module

As in EN 15804:2012+A2:2019 shall apply.

6.3 Calculation rules for the LCA

6.3.1 Functional or declared unit

As in EN 15804:2012+A2:2019, in addition:

A construction product may have a number of possible functions. Based on the goal and the scope of an EPD, the EPD may relate to a specific function and scenario using a functional unit or it may cover a range of functionalities and scenarios using a declared unit.

6.3.2 Functional unit

As in EN 15804:2012+A2:2019, in addition:

The functional unit defines the way in which the identified functions or performance characteristics of the product are quantified. This allows comparison with other product systems which have been assessed to fulfil the same functional unit.

This document is valid for all roof waterproofing systems with flexible sheets. The functional unit is 1 m² plain surface, roof waterproofing system.

The reference service life of the roof waterproofing system shall be defined and declared according to 6.3.4.

The thickness or mass per m² of the sheets shall be expressed according to the applicable product standard.

For an EPD, whereby a formula to calculate the values for other sheets thicknesses or masses may be included within the project report and EPD, the formula shall comply with the rules defined in Annex A.