
Cement, gradbeno apno in druga hidravlična veziva - Okoljske deklaracije za proizvode - Pravila za kategorije proizvodov, ki dopolnjujejo EN 15804

Cement, building lime and other hydraulic binders - Environmental product declarations - Product category rules complementary to EN 15804

Zement, Baukalk und andere hydraulische Bindemittel - Umweltproduktdeklarationen - Produktkategorieregeln in Ergänzung zu EN 15804

Ciment, chaux de construction et autres liants hydrauliques - Déclarations environnementales sur les produits - Règles de catégorie de produits complémentaires à l'EN 15804

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**Cement, building lime and other hydraulic binders -
Environmental product declarations - Product category
rules complementary to EN 15804**

Ciment, chaux de construction et autres liants
hydrauliques - Déclarations environnementales sur les
produits - Règles de catégorie de produits
complémentaires à l'EN 15804

Zement, Baukalk und andere hydraulische Bindemittel
- Umweltproduktdeklarationen -
Produktkategorieregeln in Ergänzung zu EN 15804

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prEN 16908:2026 (E)**European foreword**

This document (prEN 16908:2026) has been prepared by Technical Committee CEN/TC 51 “Cement and building limes”, the secretariat of which is held by NBN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 16908:2017+A1:2022.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

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Introduction

How to use this document

This document provides product category rules (PCR) for Type III environmental declarations (EPDs) according to EN 15804:2012+A2:2019 for cement, building lime and other hydraulic binders, in particular to products according to the standards developed in CEN/TC 51 “Cement and building limes”.

The European Standard EN 15804:2012+A2:2019, “Core rules for the product category of construction products”, is intended as the core PCR to be followed. This PCR document supplements EN 15804:2012+A2:2019 by giving more detail for specific items relevant to cement and building lime. In all cases where no specific rules are given in this document, EN 15804:2012+A2:2019 should be followed. Therefore, this document should be read in parallel with EN 15804:2012+A2:2019. EN 15804:2012+A2:2019 is normatively referenced in this document and is indispensable for its application.

The structure of this document follows that of EN 15804:2012+A2:2019, with all headings and section numbers kept the same. Where a section of EN 15804:2012+A2:2019 applies without modification, this is indicated. Where a section of EN 15804:2012+A2:2019 is not relevant for EPDs covered by this PCR, this is also indicated.

The purpose of an EPD is given in the Introduction to EN 15804:2012+A2:2019.

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1 Scope

The general scope of the core product category rules (PCR) is given in EN 15804:2012+A2:2019, Clause 1.

This PCR is primarily intended for the creation of cradle-to-gate EPDs or the declaration of performance in relation to the environmental sustainability of cement, building lime and other hydraulic binders.

In particular,

“cement” refers to

- common cements according to EN 197-1 [1],
- very low heat special cements according to EN 14216 [6],
- calcium aluminate cement according to EN 14647 [7],
- supersulfated cement according to EN 15743 [9];

“building lime” refers to

- building lime according to EN 459-1 [3];

“other hydraulic binders” refers to

- masonry cement according to EN 413-1 [2],
- hydraulic road binders according to EN 13282 [5],
- hydraulic binder for non-structural applications according to EN 15368 [8].

In other respects, the scope is as in EN 15804:2012+A2:2019.

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. Only the edition cited applies.

EN 15804:2012+A2:2019, *Sustainability of construction works — Environmental product declarations — Core rules for the product category of construction products*

3 Terms and definitions

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

4 Abbreviations

As in EN 15804:2012+A2:2019.

5 General aspects

5.1 Objective of the Core PCR

As in EN 15804:2012+A2:2019.

5.2 Types of EPD with respect to life cycle stages covered

As in EN 15804:2012+A2:2019.

Cement, building lime and other hydraulic binders are physically integrated with other products (e.g. aggregates, chemical admixtures) into downstream products (e.g. concrete, mortar, plaster). During their hydration (and/or carbonation), cement, building lime and other hydraulic binders undergo a chemical transformation. After their hydration (and/or carbonation), the original products in the un-hydrated state are not identifiable anymore and cannot be physically separated.

None of the constituents of cement, building lime and other hydraulic binders contain biogenic carbon.

Cement, building lime and other hydraulic binders therefore fulfil the three conditions:

- the product or material is physically integrated with other products during installation so they cannot be physically separated from them at end of life; and
- the product or material is no longer identifiable at end of life as a result of a physical or chemical transformation process; and
- the product or material does not contain biogenic carbon and are therefore exempt from the obligation to declare modules C1–C4 and D.

Cement, building lime and other hydraulic binders are intermediate products with many different final uses. Cement may for example be used in ready-mix concrete, precast concrete, mortar, screed, base treatment for various types of infrastructures, etc. Building lime may for example be used in plasters, renders, masonry mortars, calcium silica bricks, autoclave aerated concrete, soil treatment, asphalt mixtures, etc. Therefore, it is generally not possible to provide information about the environmental impacts of the products during the construction process, use, and end of life stages, as this will greatly depend on how the cement or building lime is used.

For this reason, this PCR is primarily intended to support the creation of cradle-to-gate EPDs, i.e. it focuses on the life cycle stages A1 – A3: raw material supply, transport, and manufacturing, although other stages may also be included.

Information on other life cycle modules may be provided in an EPD if relevant. Particularly information on carbonation of building limes in the life cycle modules A5 and B1 may be provided in EPDs.

If additional stages are included, the modularity principle shall be observed (see 6.3.4.1 of EN 15804:2012+A2:2019) in order to produce consistent EPDs.

5.3 Comparability of EPD for construction products

As in EN 15804:2012+A2:2019.

As cement, building lime and other hydraulic binders are intermediate products, no functional unit can be defined in EPDs for cement, building lime and other hydraulic binders (see 6.3) and therefore no comparisons with other construction products can be made based on EPDs according to this PCR. As stated in EN 15804:2012+A2:2019, “EPD that are not in a building context are not tools to compare construction products and construction services”.

5.4 Additional environmental information

5.4.1 General

As in EN 15804:2012+A2:2019.

prEN 16908:2026 (E)**5.4.2 Additional impact indicators**

As in EN 15804:2012+A2:2019.

For the indicators, “Eco-toxicity (freshwater)”, “human toxicity, cancer effects”, “Human toxicity, non-cancer effects” and “Land use related impacts/Soil quality”, the uncertainties with respect to the results are high for the products covered by this standard [15].

5.4.3 Additional information on carbon offset, carbon storage and delayed emissions

As in EN 15804:2012+A2:2019.

5.4.4 Additional Information not derived from LCA

As in EN 15804:2012+A2:2019.

For additional information on emissions to indoor air, soil and water during the use stage, refer to the respective PCR/EPDs for downstream products such as ready-mix concrete, precast concrete, screed, plasters, masonry mortars, etc.

The life cycle of lime is shown in Figure 2.

5.5 Ownership, responsibility and liability for the EPD

As in EN 15804:2012+A2:2019.

5.6 Communication formats

As in EN 15804:2012+A2:2019.

6 Product Category Rules for LCA**6.1 Product category**

The product category for this PCR is cement, building lime and other hydraulic binders, particularly those covered by the standards developed in CEN/TC 51.

6.2 Life cycle stages and their information modules to be included**6.2.1 General**

As in EN 15804:2012+A2:2019.

In general, EPDs according to this PCR will be cradle-to-gate EPDs, i.e. will cover modules A1 – A3 only. However, downstream processes (including transport, use and reuse, recycling or recovery) may optionally be declared.

As an example, information on carbonation of building limes in the life cycle modules A5 and B1 may be provided in EPDs.

6.2.2 A1-A3, Product stage, information modules

As in EN 15804:2012+A2:2019.

For a more detailed description of the processes in the product stage of cement, building lime and other hydraulic binders see 6.3.5.2.

6.2.3 A4-A5, Construction process stage, information modules

As in EN 15804:2012+A2:2019, not relevant for cradle to gate EPDs, but relevant for the information on carbonation of building limes and for the application of cement and building limes as soil stabilization (see 6.3.5.3).

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

As in EN 15804:2012+A2:2019, not relevant for cradle to gate EPDs, but relevant for the information on carbonation of building limes (see 6.3.5.4).

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

As in EN 15804:2012+A2:2019, not relevant for cradle to gate EPDs (see 6.3.5.4).

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

As in EN 15804:2012+A2:2019, not relevant for cradle to gate EPDs (see 6.3.5.5).

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

As in EN 15804:2012+A2:2019, not relevant for cradle to gate EPDs (see 6.3.5.6).

6.3 Calculation rules for the LCA

6.3.1 Functional or declared unit

As in EN 15804:2012+A2:2019.

6.3.2 Functional unit

6.3.2.1 General

As in EN 15804:2012+A2:2019.

As cement, building lime and other hydraulic binders are intermediate products, no functional unit can be defined in EPDs for cement, building lime and other hydraulic binders. A declared unit is used as defined in 6.3.3.

6.3.2.2 Performance in a functional unit

As in EN 15804:2012+A2:2019.

6.3.3 Declared unit

As in EN 15804:2012+A2:2019.

The declared unit is 1 000 kg of cement, building lime and other hydraulic binders.

6.3.4 Reference service life (RSL)

6.3.4.1 General

As in EN 15804:2012+A2:2019.

No RSL is declared for cement, building lime and other hydraulic binders as they are intermediate building products. A reference service life could be declared for downstream products such as ready-mix concrete, precast concrete, screed, plasters, masonry mortars or other building products in which cement and/or building lime and/or other hydraulic binders are used.

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6.3.4.2 Scenarios for RSL and functional unit

As in EN 15804:2012+A2:2019.

6.3.5 System boundaries

6.3.5.1 General

As in EN 15804:2012+A2:2019.

Biogenic CO₂ emissions can be compensated by re-growth of biomass in the short term. Therefore, CO₂ emissions from biomass fuels (secondary fuels or waste) and the biogenic carbon content of mixed fuels (secondary fuels or waste) shall not be included in the total CO₂ emissions [10], [11].

For emissions from waste and secondary fuels see Annex F. If a waste is legally defined as waste when used and the use of the waste is permitted and regulated under European and/or national waste legislation as applicable, then the end-of-waste state has not been reached and the rules of the corresponding rows in Table F.1 apply. To demonstrate the waste status of the wastes used, the corresponding EURAL waste code number (or a comparable classification outside the EU) shall be specified in the background report.

NOTE 1 This does not concern the wastes generated and used on the production site.

NOTE 2 EURAL is the European list of waste, designed to classify waste streams in the same way in all EU countries. Each waste stream is given a fixed six-digit code which provides information on the composition of the waste.

The environmental impacts caused excluding the incineration of waste (net figure), see Annex F, shall be declared in the table specifying the environmental impact indicators for modules A1 to A3.

If wastes are used for energy or material recovery the environmental impacts caused by the emissions including processing, incineration and co-incineration of waste (gross figure); may additionally be specified in the communication of the LCA results in modules A1 to A3.

6.3.5.2 Product Stage (A1-A3)

6.3.5.2.1 General

As in EN 15804:2012+A2:2019.

In more detail, the life cycle stages for cement, building lime and other hydraulic binders include the following:

6.3.5.2.2 Cement Production (A1-A3)

For cement production, module A1 includes all upstream processes required to supply materials, co-products, secondary materials, ancillary materials, and energy up to the gate of the cement plant:

- extraction of raw materials and primary fuels (e.g. mining processes):
 - extraction of raw materials. This includes the quarrying of calcareous or dolomitic materials, such as limestone or marl, siliceous materials such as sand, argillaceous material, such as clay or shale and aluminous materials such as bauxite, and the crushing of these materials in the quarry,
 - extraction/production of primary fuels. Major primary fuels used in the production of cement and building lime are coal, petcoke, lignite and natural gas;
- allocated impacts of co-products from other industries used (cf. 6.4.3.2 and 6.4.3.3);