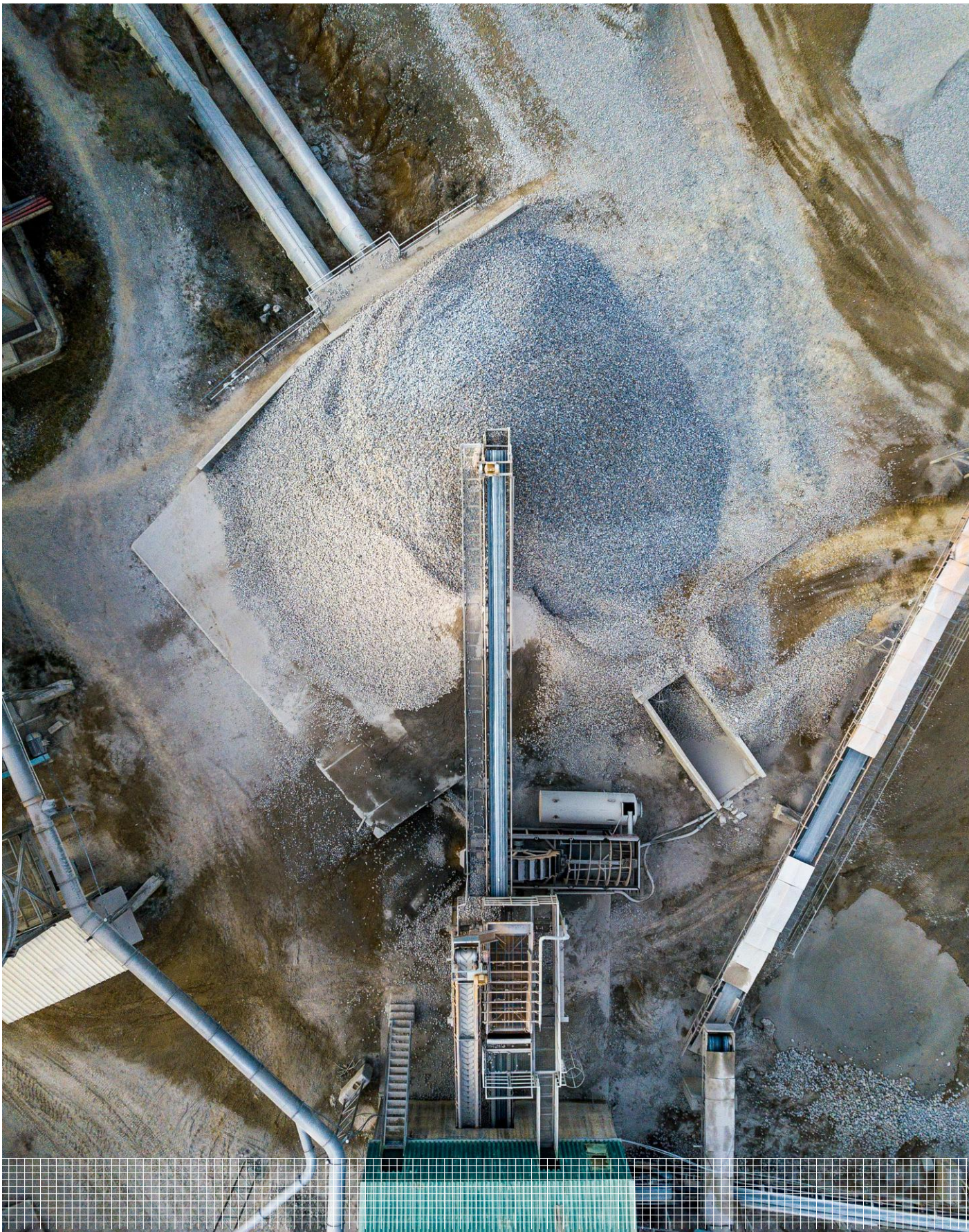
PRODUCT CATEGORY RULES (PCR)
PUBLICATION DATE 2025-09-17

GRANULATED AND MICRONIZED STONE FROM QUARRY

PRODUCT CATEGORY CLASSIFICATION: UN CPC 152, 153, 161, 162, 163, 376, 379 (SUBSETS)

PCR 2020:01
VERSION 2.0.0

VALID UNTIL: 2029-09-17



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1 INTRODUCTION

This document constitutes Product Category Rules (PCR) developed in the framework of the International EPD System: a programme for Environmental Product Declarations (EPD)[1] according to ISO 14025:2006, ISO 14040:2006, ISO 14044:2006, and product-specific standards, such as EN 15804 and ISO 21930 for construction products. EPDs are voluntary documents for a company or an industry association to present transparent, consistent, and verifiable information about the environmental performance of their products (goods or services).

The General Programme Instructions (GPI), publicly available on www.environdec.com, includes the rules for the overall administration and operation of the programme and the basic rules for developing EPDs registered in the programme. A PCR complements the GPI and the normative standards by providing specific rules, and guidelines for developing an EPD for one or more specific product categories (see Figure 1), thereby enabling the generation of consistent EPDs within a product category. A PCR should not repeat the rules and guidelines of the GPI, but include additions, specifications and deviations to the rules set in the GPI. As such, a PCR shall be used together with the GPI.

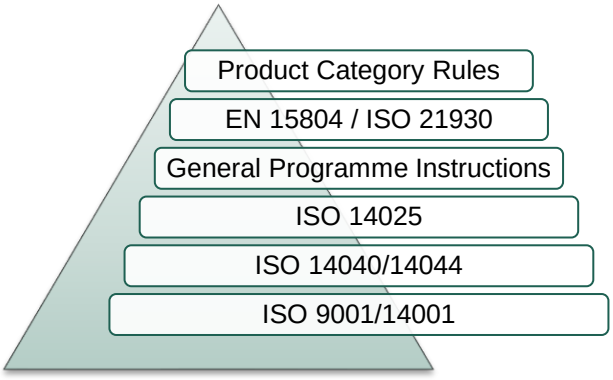

Figure 1. The hierarchy between PCRs, standards, and other documents. EN 15804 and ISO 21930 are normative standards for construction products only.

The present PCR uses the following terminology:

- The term “shall” is used to indicate what is obligatory, i.e., a requirement.
- The term “should” is used to indicate a recommendation. Any deviation from a recommendation shall be justified in the EPD development process.
- The terms “may” or “can” are used to indicate an option that is permissible.

For definitions of other terms used in the document, see the GPI and normative standards.

Any references to this PCR shall include the PCR registration number, name, and version number.

The programme operator maintains the copyright of the PCR to ensure that it is possible to publish, update, and make it available to all organisations to develop and register EPDs. Stakeholders participating in PCR development should be acknowledged in the final document and on the website.

[1] Termed type III environmental declarations in ISO 14025.

2 GENERAL INFORMATION

2.1 ADMINISTRATIVE INFORMATION

Name:	Granulated and micronized stone from quarry
Registration number and version:	2020:01, version 2.0.0
Programme:	The International EPD System
Programme operator:	EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden. Website: www.environdec.com E-mail: support@environdec.com
PCR Moderator:	Elena Neri, Indaco2 SRL, elena.neri@indaco2.it
PCR Committee:	Indaco2 Srl, Nuovasima srl, Gola Della Rossa Mineraria Spa, Emy Fuffa
Publication date:	2025-09-17 See Section 9 for a version history of the PCR.
Valid until:	2029-09-17 The validity may change. See www.environdec.com for the latest version of the PCR and the latest information on its validity and transition periods between versions.
Development and updates:	The PCR has been developed following ISO 14027, including public consultation and review. The rules for the development and updating processes are described in Section 9 of the GPI. The PCR is valid for a pre-determined time period to ensure that it is updated at regular intervals. When the PCR is about to expire, the PCR Moderator shall initiate a discussion with the Secretariat on if and how to proceed with updating the PCR and renewing its validity. A PCR may be updated before it expires, based on changes in normative standards or provided significant and well-justified proposals for changes or amendments are presented. When there has been an update of the PCR, the new version should be used to develop EPDs. For small updates (change of third-digit version number), the previous version is normally immediately removed from the PCR library on www.environdec.com and there is no transition period. For medium updates (change of second-digit version number), the previous version of the PCR is valid in parallel during a transition period of at least 90 days, but not exceeding its previously set validity period. For large updates (change of first-digit version number), the previous version is valid in parallel during a transition period of at least 180 days, but not exceeding its previously set validity period. Stakeholder feedback on PCRs is very much encouraged. Any comments on this PCR may be sent directly to the PCR Moderator and/or the Secretariat during its development or during its period of validity.

Standards and documents conformance:	General Programme Instructions of the International EPD System, version 5.0.0, based on ISO 14025 and ISO 14040/14044.[2]
PCR language(s):	At the time of publication, this PCR was available in English. If the PCR is available in several languages, these are available on www.environdec.com. In case of translated versions, the English version takes precedence in case of any discrepancies.

2.2 SCOPE OF PCR

2.2.1 PRODUCT CATEGORY DEFINITION AND DESCRIPTION

This document provides Product Category Rules (PCR) for the assessment of the environmental performance of granulated and micronized stone from quarry and the declaration of this performance by an EPD. The product category corresponds to a subset of UN CPC classes 152, 153, 161, 162, 163, 376 and 379.

The granulated or micronized stone is intended as the grinded or pulverized stone from quarry. The micronized stone from quarry is an ultra-fine powder, obtained from rock grinding, usually it is characterized by a selected granulometry ranging from 0.1 to 100 µm. It is used as additive in zootechnic, agri-food, pharmaceutic, cosmetic, wastewater purification, painting and building sectors, depending on the characteristics and chemical composition of the stone of origin. For example, micronized limestone is mainly used as calcium carbonate additive in agriculture (e.g. fertilizer or chemical for organic management) and feeding stuffs, but it can be used also in pharmaceutical sector. The PCR covers also stone and sand that are naturally granulated or micronized, without being subject to grinding. The products in the scope of the PCR do not in general fall under EN 15804, as the products are not defined as construction products themselves. Specific products may however fall under the definition of construction products. In such cases this PCR shall not be used, but PCR 2019:14 Construction products available on www.environdec.com.

The classification in the UN CPC system is a subset of classes 152, 153, 161, 162, 163, 376, 379:

- Division 15 - "Stone, sand and clay"
  - **Group 152 "Gypsum; anhydrite; limestone flux; limestone and other calcareous stone, of a kind used for the manufacture of lime or cement"**
  - **Group 153 " Sands, pebbles, gravel, broken or crushed stone, natural bitumen and asphalt"**
- Division 16 – "Other minerals"
  - **Group 161 "Chemical and fertilizer minerals"**
  - **Group 162 "Salt and pure sodium chloride; sea water"**
  - **Group 163 "Precious and semi-precious stones; pumice stone; emery; natural abrasives; other minerals"**
- Division 37 – "Glass and glass products and other non-metallic products n.e.c."
  - **Group 376 "Monumental or building stone and articles thereof"**
  - **Group 379 "Other non-metallic mineral products n.e.c."**

This PCR is not addressed to other micronized materials that do not derive from natural stones (e.g. plastics, chemicals, any material obtained by plants, lignocellulosic materials, aggregated composed by different materials).

More information is available on https://unstats.un.org/unsd/classifications/Family/Detail/1074.

[2] Some rules influencing EPD development are independent of the GPI version referred to in the PCR. For example, the latest rules on EPD verification procedures in the GPI shall be followed within 90 days of its publication. See Section 5.1 in the GPI for a description of the four categories of rules and when they shall be followed.

2.2.2 GEOGRAPHICAL SCOPE

This PCR may be used globally.

2.2.3 EPD VALIDITY

An EPD becomes valid as of its version date (see Section 8.4.5 of the GPI). When an EPD is originally published, the validity period is normally five years starting from the version date or until the EPD has been de-registered from the International EPD System. Shorter validity periods are also accepted, for example if decided by the EPD owner.

For rules on when an EPD shall be updated and re-verified during its validity, see Section 6.8.1 of the GPI. For validity periods in case of updates of EPDs, see Section 6.8 of the GPI.

The version date and the period of validity shall be stated in the EPD.

Publication of a new version of the PCR or the GPI does not affect the validity of already published EPDs.

3 REVIEW AND BACKGROUND INFORMATION

This PCR was developed in accordance with the PCR development process described in the GPI of the International EPD System, including open consultation and review.

3.1 OPEN CONSULTATION

3.1.1 VERSION 1.0.0

This PCR was available for open consultation from 2019-06-18 until 2019-08-18, during which any stakeholder was able to provide comments by contacting the PCR Moderator and/or the Secretariat.

A total of 46 stakeholders were invited via e-mail or other means to take part in the open consultation, and were encouraged to forward the invitation to other relevant stakeholders. No stakeholders provided comments during the open consultation and agreed to be listed as contributors in the PCR and on www.environdec.com.

3.1.2 VERSION 2.0.0

This PCR was available for open consultation from 2025-02-11 until 2025-04-10, during which any stakeholder was able to provide comments by contacting the PCR Moderator and/or the Secretariat.

A total of 48 stakeholders were invited via e-mail or other means to take part in the open consultation, and were encouraged to forward the invitation to other relevant stakeholders. None of the stakeholders who provided comments during open consultation agreed to be listed as contributors in the PCR and on www.environdec.com.

3.2 PCR REVIEW

3.2.1 VERSION 1.0.0

PCR review panel:	The Technical Committee of the International EPD System. A full list of members is available on www.environdec.com. The review panel may be contacted via support@environdec.com. Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee, and if there were conflicts of interest they were excused from the review.
Chair of the PCR review:	Maurizio Fieschi
Review dates:	2019-09-19 until 2019-12-19

3.2.2 VERSION 2.0.0

PCR review panel:	The Technical Committee of the International EPD System. A full list of members is available on www.environdec.com. The review panel may be contacted via support@environdec.com. Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee, and if there were conflicts of interest they were excused from the review.
Chair of the PCR review:	Elia Rilo

Review dates:	2025-06-25 until 2025-08-18

3.3 EXISTING PCRS FOR THE PRODUCT CATEGORY

As part of the development of this PCR, existing PCRs and other internationally standardised methods that could potentially act as PCRs were considered to avoid unnecessary overlaps in scope and to ensure harmonisation with established methods of relevance for the product category. The existence of such documents was checked among the following EPD programmes and international standardisation bodies:

- International EPD System
- IBU – Institut Bauen und Umwelt e.V.
- EPD Norway
- EPD Italy
- JEMAI EcoLeaf
- KEITI
- UL Environment
- ASTM International EPD Program
- SM Transparency Report Programe
- Carbon Leadership Forum PCRs

Table 1 lists the identified PCRs and other standardised methods.

Table 1. Existing PCRs and other internationally standardised methods that were considered to avoid overlap in scope and to ensure harmonisation with established methods.

Name of PCR/standard, incl. registration number	**Programme/standardisation body**	**Version number/date of publication**	**Scope**
PCR 2016:03 Preparations used in animal feeding for food-producing animals	International EPD System	Version 2.0, published 2021-09-10	Group: 233 - Preparations used in animal feeding; lucerne (alfalfa) meal and pellets; Class: 2331 - Preparations used in animal feeding; Class: 2332 - Lucerne (alfalfa) meal and pellets
PCR 2010:20 Fertilizers	The International EPD® System	Version 4.0.0, published 2025-04-25	Group: 346 - Fertilizers and pesticides; Class 3461 - Mineral or chemical fertilizers, nitrogenous; Class 3462 - Mineral or chemical fertilizers, phosphatic; Class 3463 - Mineral or chemical fertilizers, potassic; Class 3464 - Mineral or chemical fertilizers containing at least two nutrients of nitrogen, phosphate and potash; Class 3465 - Other fertilizers.
PCR 2019:14 Construction products (EN 15804+A2)	The International EPD® System	Version 2.0.1, published 2025-06-05	Construction products
c-PCR-001 Cement and building lime (EN 16908)	The International EPD® System	Version 1.0.0 2025-04-08	Group: 374 - Plaster, lime and cement

No existing PCRs or other relevant internationally standardized methods with overlapping scope were identified.

3.4 REASONING FOR DEVELOPMENT OF PCR

This PCR was developed to enable publication of EPDs for the product category defined in Section 2.2.1 based on ISO 14025 and ISO 14040/14044. The PCR enables different practitioners to generate consistent results when assessing the environmental impact of products of the same product category, and thereby it supports comparability of products within a product category.

The existing PCRs look inadequate to deal with granulated or micronized stone. In particular, the existing PCRs refer to products that already include the granulated or micronized stone inside them (e.g. animal feeding, fertilizers), as raw material in the upstream phase. This PCR is focused on the production processes to make granulated or micronized stone available for different uses (that mainly depends on chemical composition of the basic stone). This PCR is relevant not only for EPDs of this specific product, but also as a system expansion for all products that contain a percentage of granulated or micronized stone (i.e. as a detailed focus concerning the raw material extraction in the upstream).

Furthermore, an increasing interest of quarrying industries in environmental implications of their activities emphasizes the need to develop reference guideline to perform LCA in this sector.

The first version of this PCR was developed in order to enable publication of Environmental Product Declarations (EPD) for this product category based on ISO 14025, ISO 14040/14044 and other relevant standards to be used in different applications and target audiences.

The PCR was updated to GPI v.5 and enlarged in the scope (i.e., added more UN CPC codes).

3.5 UNDERLYING STUDIES USED FOR PCR DEVELOPMENT

The methodological choices made during the development of this PCR (declared/functional unit, system boundary, allocation methods, impact categories, data quality rules, etc.) were based on the studies carried out by Neri and Fuffa (2019) concerning the “Life Cycle Assessment of micronized limestone”, Neri and Esposito (2022 a, 2022 b, 2023) about the Life Cycle Assessment of micronized basalt and other natural stone. Literature is lacking of underlying studies for granulated or micronized stones as specific product. Whilst, several studies exist for quarrying activity (e.g. Bianco et al., 2019; Agwa-Ejon et al., 2018; Capitano et al., 2014, 2018; Mendoza et al.,2014; Cardu et al., 2013; Careddu et al., 2011; Traverso et al., 2010; Liguori et al., 2008; University of Tennessee, 2008).

4 LCA METHOD

This section provides rules for the LCA method used to develop an EPD for the product category as defined in Section 2.2.1. The basic rules of the LCA method are set in Annex A of the GPI, and this section only includes additions, specifications and deviations to the rules set in the GPI. Guidance and examples of applying the LCA method are also available on www.environdec.com/methodology.

4.1 MODELLING APPROACH

See Section A.1 of the GPI.

4.2 DECLARED/FUNCTIONAL UNIT

EPDs based on this PCR shall use a declared unit (DU). The declared unit shall be **1000 kg (i.e. 1 tonne) of granulated or micronized stone** and its packaging, if applicable. The 1000 kg refers to the net weight of granulated or micronized stone and does not include the packaging weight.

The reference flow in the life cycle assessment shall be defined at the processing/blending company gate, at the shelf or the retailer or at the marketplace.

This PCR uses a declared unit instead of a functional unit, independent to the functional and qualitative aspect of the product. When comparing EPDs based on this PCR it should be taken into consideration.

The declared unit shall be stated in the EPD. The environmental performance results shall be given per declared unit. A description of the function of the product should be included in the EPD, if relevant.

4.2.1 TECHNICAL SPECIFICATION AND LIFESPAN

Not applicable for this product category.

4.3 SYSTEM BOUNDARY

The scope of this PCR, and EPDs based on, is *cradle-to-gate* (A1-A3), for products that fulfil all the criteria for excluding the end-of-life stage (Section A.3 of the GPI). If the criteria reported in A.3 of GPI are not fulfilled, the scope of the PCR and EPDs based on, shall be cradle to gate (A1-A3) with modules C1-C4, while module D is optional. For more information on the setting of system boundaries, see Section A.3 of the GPI.

The EPD may be limited to A1-A3 since the product is usually physically integrated with other ingredients in subsequent life-cycle process, they cannot be physically separated from them and no longer identifiable at end-of-life, because of a physical or chemical transformation process. In addition, usually the products covered by this PCR do not contain biogenic carbon. E.g. micronized limestone sold in bulk and used as additive in recipes for feedstuffs, chemicals, pharmaceuticals, plastics.

In addition, any modules from A4-A5 and B1-B7 may be included in the system boundary.

If the product is sold with packaging, the module A5 shall be included to assess the EoL of material packaging.

All environmentally relevant processes from “cradle to gate” should be included, so that at minimum 95% of the total energy use, mass of product content, and environmental impact is accounted for (see Section 4.5).

4.3.1 LIFE-CYCLE STAGES AND INFORMATION MODULES

The product life cycle shall be divided into the following life-cycle stages and information modules:

- Product stage, modules A1-A3 (mandatory for this product category):
  - A1: Stone extraction, production of raw material, energy resources consumed in the module, packaging, etc.
  - A2: External transportation to the core processes
  - A3: Manufacturing of the product[3]

[3] These are often, but not always, the processes under operational control of the EPD owner.

- Distribution and installation stage, modules A4-A5 (optional for this product category):
  - A4: Transportation from preparation to an average processing/blending company gate, or to the shelf, retailer or to the marketplace
  - A5: End-of-life processes of packaging waste.
- Use stage, modules B1-B7 (optional for this product category):
  - For more information see Section A.3.1 of the GPI
- End-of-life stage, modules C1-C4 (optional for this product category):
  - For more information see Section A.3.1 of the GPI

In addition, consequences of recovered material/energy beyond the product cycle shall be reported in module D (optional for this product category).

In the EPD, the environmental performance of each of the life-cycle stages (and module D, if included) shall be reported separately, and in aggregated form for the life-cycle stages (modules A-C).

Section A.3.1 of the GPI outlines rules for how to assign generation of electricity and production of fuels, steam and other energy carriers used, and losses arising, in each information module.

Sections 4.3.1.1 to 4.3.1.6 further describe the processes to include or exclude for each life-cycle stage.

4.3.1.1 Modules A1-A3: Product stage

- Module A1:
  - Stone extraction
  - Production of raw materials
  - Production of auxiliary products used such as detergents for cleaning, etc. and maintenance (e.g. of machineries)
  - Production of chemicals (e.g. that constitute the explosives)
  - Manufacturing of primary and secondary packaging
  - Production, distribution and use of electricity and fuels consumed in the module
- Module A2:
  - External transportation to the core processes
- Module A3:
  - Production processes (e.g. Grinding / wet cutting / washing; Series of milling and sifting; Drying; Packaging, if applicable)
  - Storage and material handling
  - Production, distribution and use of electricity and fuels consumed in the module
  - Waste treatment of waste generated during manufacturing

The technical system shall not include:

- Manufacturing of production equipment, buildings and other capital goods
- Business travel of personnel
- Travel to and from work by personnel
- Research and development activities

Processes not listed here may also be included. All elementary flows at resource extraction shall be included, except for the flows that fall under the general cut-off rule in Section 4.5.

4.3.1.2 Modules A4-A5: Distribution and installation stage

- Module A4:

- Transportation from preparation to an average processing/blending company gate, or to the shelf, retailer or to the marketplace

- Module A5:
  - End-of-life processes of packaging waste

Processes not listed here may also be included. All elementary flows at resource extraction shall be included, except for the flows that fall under the general cut-off rule in Section 4.5.

4.3.1.3 Modules B1-B7: Use stage

For more information on the setting of system boundaries, see Section A.3.1 of the GPI.

4.3.1.4 Modules C1-C4: End-of-life stage

For more information on the setting of system boundaries, see Section A.3.1 of the GPI.

4.3.1.5 Module D: Benefits and load beyond system boundaries (optional)

For more information, see Section A.7.5 of the GPI.

4.3.1.6 Excluded processes

See Section A.3.1.1 of the GPI.

4.3.2 OTHER BOUNDARY SETTING RULES

See Section A.3.2 of the GPI for rules on setting boundaries to nature as well as geographical and temporal boundaries. See Section A.4 of the GPI and Section 4.6 below for rules on setting boundaries to other product systems.

4.4 PROCESS FLOW DIAGRAM

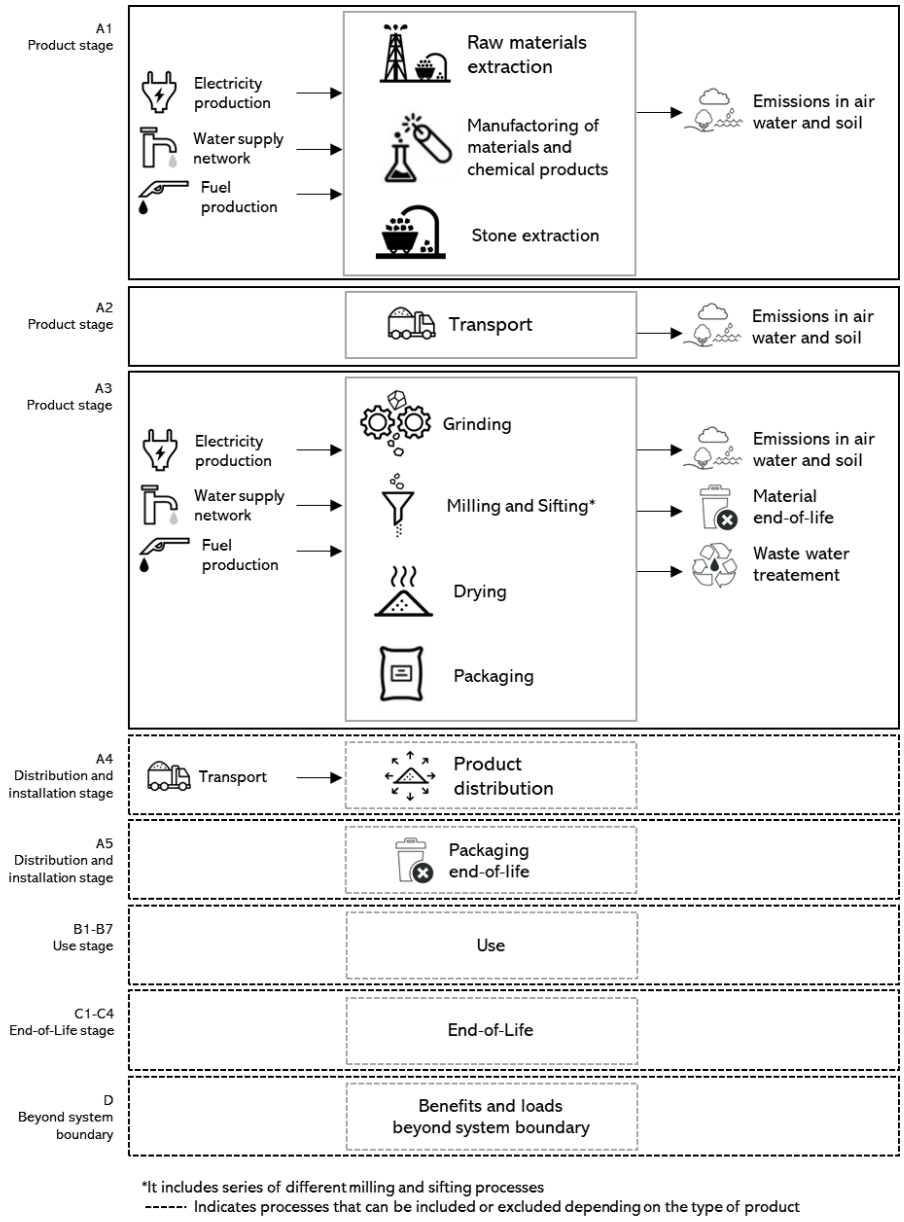

Figure 2. Process flow diagram illustrating the processes that shall be included in the product system, divided into the life-cycle stages. The illustration of processes to include may not be exhaustive.

4.5 CUT-OFF RULES

See Section A.3.3 of the GPI.

4.6 ALLOCATION RULES

See Section A.4 of the GPI.

4.6.1 ALLOCATION OF CO-PRODUCTS

See Section A.4.1 of the GPI.

4.6.2 ALLOCATION OF WASTE

See Section A.4.2 of the GPI.

4.7 DATA AND DATA QUALITY RULES

See Section A.5 of the GPI.

See Section 4.8 for further rules related to data and data quality per life-cycle stage and module D.

4.7.1 DATA CATEGORIES

See Section A.5.1 of the GPI.

4.7.2 DATA QUALITY REQUIREMENTS FOR PRIMARY DATA

See Section A.5.2 of the GPI.

4.7.3 DATA QUALITY REQUIREMENTS FOR REPRESENTATIVE SECONDARY DATA

See Section A.5.3 of the GPI.

4.7.4 DATA QUALITY ASSESSMENT AND DECLARATION

See Section A.5.4 of the GPI.

4.7.5 EXAMPLES OF DATABASES FOR SECONDARY DATA

No specific databases are recommended for secondary data. All commercial or publicly available databases that meet the data quality requirements may be used. The specifications and the version of the database(s) used shall be reported in the EPD.

4.8 OTHER LCA RULES

See Section A.6 of the GPI.

For specific LCA rules per life-cycle stage, see Section 4.9.

4.8.1 MASS BALANCE

See Section A.6.1 of the GPI.

4.8.2 ELECTRICITY MODELLING

See Section A.6.2 of the GPI.

4.8.3 BIOGAS MODELLING

See Section A.6.3 of the GPI.

4.9 SPECIFIC RULES PER LIFE-CYCLE STAGE AND MODULE D

See Section A.7 of the GPI.

Below are further data requirements and other LCA rules per life-cycle stage, and for module D, of relevance for the product category.

4.9.1 PRODUCT STAGE, A1-A3

See section A.7.1 of the GPI and the following specific descriptions related to this PCR.

The following requirements apply to the product stage in addition to section A.7.1 of the GPI.

A1) Raw materials extraction and processing:

- Quarrying activities (e.g. materials, energy, direct emissions)
- Routine maintenance of machineries <3 years (e.g. parts that ordinary must be changed due to wear) should be included.
- Occasional maintenance (i.e. > 3 years frequency) of machineries and occasional consumptions shall be excluded.

A2) Transport:

- Transport from the final delivery point of raw materials, chemicals, main parts, and components (see above regarding A1 processes) to the manufacturing plant should be based on the actual transportation mode, distance from the supplier, and vehicle load, if available, and shall be included in module A2.

A3) Manufacturing:

- The end of life of materials used during the production process (excluding the materials that constitutes the final packaging, if any) shall be considered in the module A3. These include the packaging of materials or components (e.g. filters, bags). Transport of waste to the waste plant shall be also considered.

4.9.2 DISTRIBUTION AND INSTALLATION STAGE, MODULES A4-A5

See section A.7.2 of the GPI and the following specific descriptions related to this PCR.

A4) Transport:

The transport of the product to the processing/blending company or retailer should be described, which should reflect the actual situation to the best extent possible. The following priority should be used:

- A weighted average of transportation modes and distances, based on transportation to several customers or markets, representing the geographical scope of the EPD.
- Actual transportation modes and distances to a specific customer or market, representing the geographical scope of the EPD.

The option chosen shall be clearly stated in the EPD.

A5) Installation:

This module shall include the end of life of packaging (if any):

- Scenarios for the end-of-life stage that shall be technically and economically practicable and compliant with current regulations in the relevant geographical region based on the geographical scope of the EPD. Key assumptions regarding the end-of-life stage scenario shall be documented.

Transport of waste to the waste plant should be also considered.

4.9.3 USE STAGE, MODULES B1-B7 AND END-OF-LIFE STAGE, MODULES C1-C4

See A.7.3 of the GPI.

The use stage and the end of life of the granulated or micronized stone (optional) depend on the characteristics of the preparation in which the product is included as an ingredient, or the final application. The use stages may be modelled referring to other PCRs that is applicable to the final product (e.g., if composed by a mix of ingredients PCR 2016:03 Preparations used in animal feeding for food-producing animals v. 2.0 CPC 2331, 2332; PCR 2010:20 Fertilizers v. 4.0.0 CPC 3461, 3462, 3463, 3465), as long as no conflicting requirements to this PCR and corresponding

GPI to this version of PCR are followed. If included, the modelling of use stage shall include material flows and energy consumption for the use of 1 DU (i.e. corresponding to 1 tonne of granular or micronized stone). The EPD shall include a description of the assumption made for the modelling of the use stage and a description of the final product that uses the granular or micronized stone as an ingredient.

4.9.4 END-OF-LIFE STAGE, MODULES C1-C4

This PCR does not provide any additions to the rules and guidance in the GPI A.7.4 on the modelling of the end-of-life stage.

4.9.5 CONSEQUENCES FOR RECOVERED MATERIAL/ENERGY BEYOND THE PRODUCT LIFE CYCLE (MODULE D)

This PCR does not provide any additions to the rules and guidance in the GPI A.7.5. on the modelling of module D.

4.10 ENVIRONMENTAL PERFORMANCE INDICATORS

For specific rules see Section A.8 of the GPI.

4.11 SPECIFIC RULES PER EPD TYPE

4.11.1 MULTIPLE PRODUCTS FROM THE SAME COMPANY

See Section A.9.1 of the GPI.

4.11.2 SECTOR EPD

See Section A.9.2 of the GPI.

4.11.3 EPD OWNED BY A TRADER

See Section A.9.3 of the GPI.

4.11.4 EPD OF PRODUCT NOT YET ON THE MARKET

See Section A.9.4 of the GPI.

4.11.5 EPD OF PRODUCT RECENTLY ON THE MARKET

See Section A.9.5 of the GPI.

5 CONTENT OF LCA REPORT

Data for verification shall be presented in the form of an LCA report – a systematic and comprehensive summary of the project documentation that supports the verification of an EPD. The LCA report is not part of the public communication.

See Section 8.3.1 of the GPI for rules on the content of the LCA report.

Note that there may be rules on the content of the LCA report elsewhere in the GPI or in this PCR.

6 CONTENT AND FORMAT OF EPD

See Section 7 of the GPI.

6.1 EPD LANGUAGES

See Section 7.1 of the GPI.

6.2 UNITS AND QUANTITIES

See Section 7.2 of the GPI.

6.3 USE OF IMAGES IN EPD

See Section 7.3 of the GPI.

6.4 SECTIONS OF THE EPD

See Section 7.4 of the GPI.

6.4.1 COVER PAGE

See Section 7.4.1 of the GPI.

6.4.2 GENERAL INFORMATION

See Section 7.4.2 of the GPI.

6.4.3 INFORMATION ABOUT EPD OWNER

See Section 7.4.3 of the GPI.

6.4.4 PRODUCT INFORMATION

See Section 7.4.4 of the GPI.

6.4.5 CONTENT DECLARATION

See Section 7.4.5 of the GPI.

6.4.6 LCA INFORMATION

See Section 7.4.6 of the GPI.

6.4.7 ENVIRONMENTAL PERFORMANCE

See Section 7.4.7 of the GPI.

The EPD shall declare the environmental performance indicators listed or referred to in Section 4.10, per declared unit, per life-cycle stage and module D (if included in the scope of the EPD).

An additional requirement in this PCR, is that the results of modules A1-A3 shall be declared separately and in aggregated form (i.e. total A1-A3) in the EPD and LCA report.

6.4.8 ADDITIONAL ENVIRONMENTAL INFORMATION

See Section 7.4.8 of the GPI.

6.4.9 ADDITIONAL SOCIAL AND ECONOMIC INFORMATION

See Section 7.4.9 of the GPI.

6.4.10 INFORMATION RELATED TO SECTOR EPDS

See Section 7.4.10 of the GPI.

6.4.11 VERSION HISTORY

See Section 7.4.11 of the GPI.

6.4.12 ABBREVIATIONS

See Section 7.4.12 of the GPI.

6.4.13 REFERENCES

See Section 7.4.13 of the GPI.

7 LIST OF ABBREVIATIONS

CPC	Central product classification
EPD	Environmental product declaration
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life cycle assessment
PCR	Product category rules
RSL	Reference service life
UN	United Nations

8 REFERENCES

Agwa-Ejon, J.F., Pradhan, A., 2018. Life cycle impact assessment of artisanal sand-stone mining on the environment and health of mine workers. Environ. Impact Assess. Rev. 72, 71 e 78.

Bianco I, Blengini GA, 2019. Life Cycle Inventory of technologies for stone quarrying, cutting and finishing: Contribution to fill data gaps. Journal of Cleaner Production, 231 (2019), pp. 419-427

Capitano, C., Peri, G., Raimondi, C., Rizzo, G., Traverso, M., 2018. Energy and environmental analysis of marble productive sites: "by phases" and "by single process" combined approach. Energy Procedia 148, 1183 e 1190.

Capitano, C., Peri, G., Rizzo, G., 2014. Is the Eco-label EU Decision for hard coverings really capable of capturing the environmental performances of the marble productive chain? A field verification by means of a life cycle approach. Int. J.Life Cycle Assess. 19, 1022 e 1035

Cardu, M., 2012. Analysis of the excavation techniques to optimize the productivity in an Italian dimension stone basin. Diam. Appl. Tecnol. 115 e 124.

Careddu, N., Siotto, G., 2011. Promoting ecological sustainable planning for natural stone quarrying. The case of the Orosei Marble Producing Area in Eastern Sardinia. Res. Pol. 36, 304 e 314.

CEN (2021) EN 15804:2012+A2:2019/AC:2021, Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

General Programme Instructions for the International EPD System. Version 5.0.0, dated 2024-06-19. Available on www.environdec.com.

ISO (2006a) ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures.

ISO (2006b) ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework.

ISO (2006c) ISO 14044: 2006, Environmental management – Life cycle assessment – Requirements and guidelines.

ISO (2015a) ISO 14001:2015, Environmental management systems – Requirements with guidance for use.

ISO (2015b) ISO 9001:2015, Quality management systems – Requirements.

ISO (2017) ISO 21930:2017, Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services.

ISO (2018) ISO/TS 14067:2018, Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication.

Liguori, V., Rizzo, G., Traverso, M., 2008. Marble quarrying: an energy and waste intensive activity in the production of building materials. WIT Trans. Ecol. Environ. 108, 197 e 207

Mendoza, J.-M.F., Feced, M., Feijoo, G., Josa, A., Gabarrell, X., Rieradevall, J., 2014. Life cycle inventory analysis of granite production from cradle to gate. Int. J. Life Cycle Assess. 19, 153 e 165.

Neri E., Esposito G., 2022 a. "Life Cycle Assessment della produzione di Farina di Basalto XM from Basalti Orvieto srl". LCA report developed for Basalti Orvieto srl (confidential)

Neri E., Esposito G., 2022 b. "Life Cycle Assessment della produzione di Hydrofy G and GS 2.5 from Nuovasima srl". LCA report developed for Nuovasima srl (confidential)

Neri E., Esposito G., 2023. "Life Cycle Assessment della produzione di Hydrofy G 5 and Alufy ECO2 from Nuovasima srl". LCA report developed for Nuovasima srl (confidential)

Neri E., Fuffa E. and Pulselli RM 2019 "Life Cycle Assessment of micronized limestone". LCA report developed for GDR Mineraria (confidential)

PCR 2010:20 Fertilizers v. 4.0.0, published 2025-04-25.

PCR 2016:03 Preparations used in animal feeding for food-producing animals, Version 2.0, published 2021-09-10.

PCR 2019:14 Construction products (EN 15804+A2), Version 2.0.1, published 2025-06-05.

PCR 2019:14-c-PCR-001 c-PCR-001 Cement and building lime (EN 16908) (2024-04-30).

Traverso, M., Rizzo, G., Finkbeiner, M., 2010. Environmental performance of building materials: life cycle assessment of a typical Sicilian marble. Int. J. Life Cycle Assess. 104 e 114.

University of Tennessee - Center for Clean Products, 2008b. Sandstone Quarrying and Processing: A Life-Cycle Inventory.

GRANULATED AND MICRONIZED STONE FROM QUARRY

PRODUCT CATEGORY CLASSIFICATION: UN CPC 152, 153, 161, 162, 163, 376, 379 (SUBSETS)

9 VERSION HISTORY OF PCR

VERSION 1.0.0, 2020-01-08

Original version of PCR.

VERSION 1.0.1, 2023-10-06

Updated version with prolonged validity period with 1 year, due to the initiation of an updating process.

VERSION 2.0.0, 2025-09-17

Changes in this update concern:

- Compliance with the General Programme Instructions, Version 5.0.0.
- Use of the latest PCR template.
- PCR scope expansion, including UN CPC code 161, 162, 163, 376 and 379, see Section 2.2., and removing granulometry limit of 200 µm.
- Editorial changes.
- Modified the mandatory requirement for transport processes in downstream phase, now optional in module A4.
- The additional environmental impacts indicators are deleted.

GRANULATED AND MICRONIZED STONE FROM QUARRY

PRODUCT CATEGORY CLASSIFICATION: UN CPC 152, 153, 161, 162, 163, 376, 379 (SUBSETS)