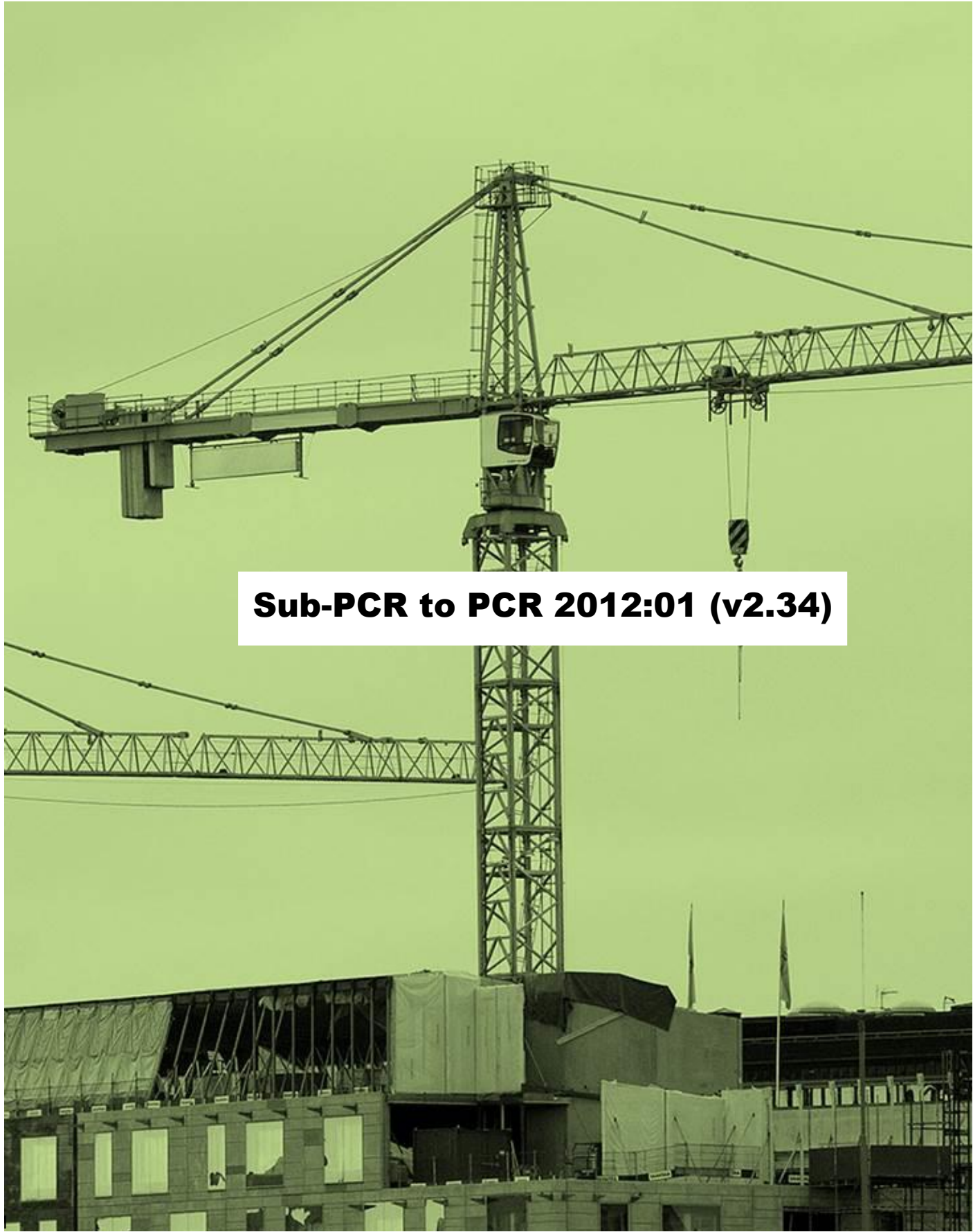


ACOUSTICAL SYSTEM SOLUTIONS
(CONSTRUCTION PRODUCT)

PCR 2012:01-SUB-PCR-C



Sub-PCR to PCR 2012:01 (v2.34)

INTRODUCTION

This document is a sub-PCR to *PCR 2012:01 Construction products and construction services*, version 2.31, available at www.environdec.com. Please note that it is **not** a PCR in its own, but intended to be a further specification of a specific product group to be used together with PCR 2012:01. See Figure 1 for the role of this sub-PCR.

For more details about the scope of this sub-PCR see the Section 2-3 of this document and Section 7 of PCR 2012:01.

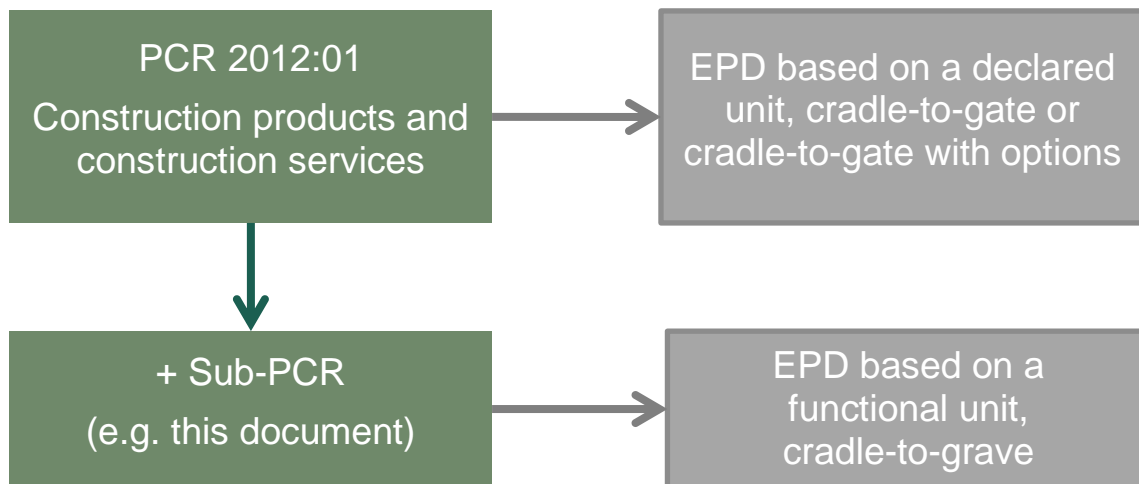



Figure 1 Overview of PCR 2012:01 and its sub-PCRs to create EPDs with different scopes.

This sub-PCR has been developed according to the PCR development procedure of the International EPD® System.

1 GENERAL INFORMATION

Name:	Acoustical system solutions (construction product)
Registration no:	PCR 2012:01-Sub-PCR-C
Programme:	 The International EPD® System
Programme operator:	EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden. Website: www.environdec.com E-mail: info@environdec.com
Date:	2021-11-08
This sub-PCR was prepared by	IVL Swedish Environmental Research Institute, Ecophon AB
Appointed PCR moderator:	Martin Erlandsson, IVL Swedish Environmental Research Institute Martin.erlandsson@ivl.se
Open consultation period:	2015-01-29 until 2015-04-16
Review panel for this PCR:	The Technical Committee of the International EPD® System. Full list of TC members available on www.environdec.com/TC
Valid within the following geographical representativeness:	Global
PCR language:	English. The English version takes precedence over any translated versions.
Valid until:	2022-02-28 <i>The validity of this sub-PCR is dependent on the validity of PCR 2012:01 Construction products and construction services.</i>

This document provides further specification to PCR 2012:01 Construction products and construction services, Version 2.34. It may be used for Environmental Product Declarations that have a cradle-to-grave scope and uses a functional unit for the product group "Acoustical system solutions".

This sub-PCR is publically available on www.environdec.com. It is a living document. If relevant changes in the LCA methodology or in the technology for the product category occur, the documents will be revised and any changes will be published on the website.

Any comments to this document may be given on the PCR Forum or directly to the PCR moderator during the period of validity.

The EPD shall refer to a specific PCR version number, as well as this sub-PCR. The production of new PCR versions does not affect the EPD certification period.

2 SUB-PCR SCOPE

This sub-PCR contains the requirements on an Environmental Product Declaration (EPD) from the range of EPD for construction products and services found on the overarching PCR 2012:01 published by EPD International that are based on the standards ISO 21930 and the EN 15804, respectively.

3 DEFINITION OF THE PRODUCT GROUP

This PCR cover the product group acoustical system solutions. The identified UN CPC codes are 37129 and 37990:

Division: 37 - Glass and glass products and other non-metallic products n.e.c.

Group: 371 - Glass and glass products

Class: 3712 - Glass fibres and articles thereof, except woven fabrics

Subclass: 37129 - Voiles, webs, mats, mattresses, boards and other articles of glass fibres, except woven fabrics

Group: 379 - Other non-metallic mineral products n.e.c.

Class: 3799 - Non-metallic mineral products n.e.c. (including mineral wool, expanded mineral materials, worked mica, articles of mica, non-electrical articles of graphite or other carbon and articles of peat)

Subclass: 37990 - Non-metallic mineral products n.e.c. (including mineral wool, expanded mineral materials, worked mica, articles of mica, non-electrical articles of graphite or other carbon and articles of peat)

If no relevant CPC code is found this has to be stated in the EPD, but will not limiting the EPD to be published. More information is available at <http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=25&Lg=1>.

The product group is divided in two type of EPD:

- panels
- acoustical system solutions

This sub-PCR cover all kind of acoustic panels and acoustical system solutions that exist on the market, where the intended use is inside a building. This sub-PCR also deals with a product family or assortment of panels or system solutions design for the same kind of applications.

Panels is made of different materials such as organic material (wood, cork etc), mineral wool (i.e. glass wool and stone wool), or other mineral materials (gypsum) and combination of materials like wet felt panels, glass wool combined with gypsum etc.

Acoustical system solutions consist of panels, mounted in a profile system or with other required materials to fix the panels to the floor or wall. Acoustical system solutions cover all type of systems contributing to improve the acoustical performance for the indoor environment.

The acoustic ceilings for the European market are designed, produced and CE-marked according to EN 13964:2014. In the absence of any other European Standard covering other acoustical solutions, this European Standard is also applicable for other acoustic applications on order to specifies dimensions, tolerances and, relevant, performance requirements in the context of this PCR when relevant. In the case where the acoustic performance classes in EN 13964:2014 are not valid for the intended use, it is possible to use a similar standard recognized on the market where the EPD is supposed to be used. If an acoustic performance class it is not possible to establish, an EPD can instead be developed based on a declared unit.

4 PRODUCT GROUP OF REFERENCE PRODUCT

For a product that is part of a range of products that belong to the same product family or assortment, the EPD may be found on a reference product. The reference product shall then be the *most representative product* in the range. The most representative product may either be based on the most sold alternative, or the alternative that is a good average of the product assortment in respect to its environmental impact. It shall be given in the EPD an explanation of how the reference product is selected and its representation in respect to the entire product family or defined assortment.

Information about requirements for when similar products are allowed to be declared in the same EPD are available in the General Programme Instructions.

5 DECLARED UNIT

The declared unit for panels is 1 m² and only accounts for the panels as such. The weight per m² shall be reported in the EPD as supplementary information. Note that it is possible to have an EPD based on cradle-to-gate, or cradle-to-gate with option (as defined in EN15804).

6 FUNCTIONAL UNIT

1 m² including the service life and a declared acoustic performance class (i.e. sound absorption class A, B, C, D or E).

The specific acoustical system solution service life is as default set to correspond to the building design life that commonly is set to 50 or 60 years. The functional unit shall include a specification of the intended use such as panels, acoustical ceiling system solutions for walls of ceilings or both.

To make relevant comparison the functional unit should have as a limit to include a sound absorption performance class. Sound absorption shall be based on its measurements according to EN ISO 354 and classification according to EN ISO 11654.

If other requirement or test methods or classifications are used for product that are sold to markets outside Europe, these alternative test results and classifications shall be reported in the EPD as complementary information to the standards given above. An alternative approach is that the EPD is published in different versions; e.g. one for the European market and one for the North American market. It is noticed that in North America is the sound insulation measured on the same standard as given above but, reported according to the single value ratings for NRC and SAA according to ASTM C 423.

It shall be noticed that the acoustical system solution in a comparison may have other properties and functional demands that varies between the alternatives such as fire resistance, demountability/accessibility, cleanability, visual appearance and different physical properties. These properties can be reported in the EPD or in a technical data sheet referred to in the EPD.

7 CONTENT DECLARATION

The content declaration shall include a table in the EPD where the composition of the panel is included for the panel or the acoustical system solution. The different component shall be reported in weight-% and the total mass of the declared or the declared unit shall be given, as in the example below:

Component	% (w/w)
Panels	
Glass wool	45
Glass fibre woven	2

Suspension system	
Steel	50
PP	3
Total mass, kg:	0,45

The EPD shall include a statement that; “the product doesn’t contain any substance from the candidate list to authorization of the REACH legislation with a concentration above 0,1% (w/w)”. If this is statement is not fulfilled the component(s) that include the regulated substance(s) shall be highlighted in the table with an * and further information given in a note after the table.

The EPD may also include other statements concerning chemical content (e.g. specific requirement given in EPD Norway concerning substances listed in the Norwegian priority list:

<http://www.environment.no/Topics/Hazardous-chemicals/Hazardous-chemical-lists/List-of-Priority-Substances/>).

8 TRANSPORTATION A4

If A4 is included, note that it is possible to give more than one scenario for the transportation to a construction site or as asked for in some EPD-systems “to a central warehouse” in a specific country. It is also possible to give a global average on how the manufactured products in the EPD are, as an average, transported to the construction site. It is important that the EPD shall include a text that describes what the transportation scenario(s) represents.

9 INSTALLATION A5

If A5 is included, note that the resource need such as energy use for assembly and mounting shall be given. Such information may be an estimate or measured. Give a description in the EPD how these figure was calculated or measured.

10 USAGE, STAGE B

As in EN 15804.

11 END-OF-LIFE, STAGE C

If stage C is included, note that it is possible to give more than one scenario for the end-of-life. These scenarios shall be relevant for the markets where the EPD will be used. The end-of-life fate of each component in the content declaration in the EPD shall be handled.

If detailed information on end-of-life fate is missing or hard to grasp it is possible to give a realistic general assumption of the current end-of-life fate. Inapproachable, the EPD shall include a text that describes how the end-of-life scenario is set.

12 RECYCLING OF MATERIALS BEYOND THE PRODUCT LIFE CYCLE, STAGE D

As in EN 15804.

13 OTHER ENVIRONMENTAL INDICATORS

If emission to surrounding media (through VOC, leaking or other) is regulated according to harmonised European standard, i.e. CE labelling, in any European country this result will be mandatory information in the EPD. These emission values or classes for the regulated substances shall then be included in the EPD.

14 PCR CONSULTED

The following PCR was found and consulted in the development work of this PCR:

- Rules for Environmental Product Declarations- Ceiling panels for suspended ceiling systems. Product Category Rules confirmed by the Advisory Board (SVA), version: October 2010 (US).
- PCR Anleitungstexte für gebäudebezogene Produkte und Dienstleistungen. Teil B: Anforderungen an die EPD für Mineralplatten. Institut Bauen und Umwelt e.V., stand 30.07.2014.

15 REFERENCES

EN 15804:2012+A1:2013 (Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products)

Erlandsson M: Product category rules and PCR basic module: Construction products and Construction services. The International EPD System, PCR 2012:01 version 2.0.

GPI, General Programme Instructions for the International EPD system. Version 2.5, 2015-01-23.

16 CHANGES IN THIS SUB-PCR

VERSION 2015-08-17

Original version based on PCR 2012:01 version 2.0 and EN 15804:2012+A1:2013.

VERSION 2016-01-18

A revision is made so that both ceiling and wall system is applicable. Name changed from Acoustic ceilings to Acoustical systems solutions.

VERSION 2017-05-30

- Updated nomenclature of sub-PCRs in accordance with version 2.2 of PCR 2012:01.

- Editorial changes

VERSION 2018-11-16

- Updated validity to 2020-03-03 to align with version 2.3 of PCR 2012:01.
- Editorial changes

VERSION 2020-02-17

- Updated validity to 2020-09-01 to align with version 2.31 of PCR 2012:01.

VERSION 2020-07-02

- Updated validity to 2020-12-31 to align with version 2.32 of PCR 2012:01.

VERSION 2020-09-18

- Updated validity to 2021-12-31 to align with version 2.33 of PCR 2012:01.

VERSION 2021-11-08

- Updated validity to 2022-02-28 to align with version 2.34 of PCR 2012:01.

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