

Global GreenTag^{Cert™}

INTERNATIONAL EPD PROGRAM

Masonry Roofing, Cladding, Paving, Piping or Lining
subPCR MAU:2024 V1

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ENVIRONMENTAL PRODUCT DECLARATION (EPD) PROGRAM

Type III EPDs

Compliant to

EN 15804 +A2, ISO 14025 and ISO 21930

For construction products

Sub Product Category Rules based on Life Cycle Analysis

Masonry roofing, cladding, paving, piping or lining Sub-PCR MAU:2024 DRAFT

Product Category Rules Stakeholder Comments

PCR: Masonry roofing, cladding, paving, piping or lining Sub-PCR MAU:2024 V1 DRAFT

Comments End: 16th August 2024 (30 days)

The following Product Category Rules (PCR) are made available for a public stakeholder comment for a period of 30 days. This PCR has been developed for Type III Environmental Product Declarations (EPD), according to ISO 14025, EN 15804+A2, and ISO 21930 in order of precedence for **Masonry roofing, cladding, paving, piping or lining Sub-PCR MAU:07 2024 V1 DRAFT** in international markets throughout Europe, North America, Australasia and Africa.

PCRs are to ensure consistency, comparability and completeness of methods and parameters in EPDs. They should provide harmonised method requirements for LCA studies, calculation rules, additional product environmental information and instructions on EPD content and format.

The Global GreenTag^{Cert™} EPD program operator welcomes all stakeholder comments on this PCR to ensure presentation of comparable declarations that best communicate construction product environmental life cycle issues worldwide to serve all key stakeholders and industries.

Specific comments should be emailed to certification9@globalgreentag.com before **16th August 2024** along with the following information:

Stakeholder's Name:

Organisation:

Position:

Email:

Phone:

General Comments:

I. Application

While the European Committee for Standardisation (CEN) standard EN 15804+A2 serves as core PCRs for all product categories, this document contains sub-PCRs that apply to a particular product category. The former is called the master PCR and the latter the sub-PCR document. When new product assessments are needed, a sub-PCR is developed to define new rules for that category. As environmental health legislation is enacted, rules in the master PCR document shall be revised with file name and revisions clearly marked so all such PCRs are identifiable in time.

II. Authors

This sub-PCR, compiled by Yasmin Kelly, Product Assessor and Deputy EPD Program Manager, Global GreenTag International. Rules were approved for Global GreenTag^{Cert™} EPD program adoption by Nana Bortsie-Aryee, Program Director, Global GreenTag International Pty Ltd.

III. Terms of Validity

Product Category Masonry: **roofing, cladding, paving, piping or lining** Sub-PCR MAU:07 2024 V1
 PCR issue date 16/08/2024 and
 Period of validity to 16/08/2024

IV. Goal

This sub-PCR is an EPD development guide for defined product sets with specified functionality. Users include specifiers, manufacturers and stakeholders. It is valid for all such products and related components according to standards and technical approvals herein.

V. Product Set Definition

The declared product set includes bricks, blocks, pavers and tiles used interior and external for:

- substructure reservoir, pipe, tunnel or roof, wall, roof, cladding, paved structures made from:
- fireclay, concrete, pozzolan, aggregate, dust, stone or composites formed in
- cast, extruded, homogenous, heterogeneous, melded, laminated, woven or non-woven forms

System outcomes and results declared reflect product performance at reference conditions of exposure, strength, wear, temperature and humidity defined by 14025:2006, 6.7. Conformance required is performance to meet International and Australian Standards including:

- AS 2049-2002 Roof tiles;
- AS 3700:2018 Masonry structures;
- AS/NZS 4455.1:2008 Masonry units, pavers, flags and segmental retaining wall units;
- AS/NZS 4456.11:2003 Masonry units, segmental pavers and flags — Methods of test, Method 11: Determining coefficients of expansion;
- AS/NZS 4456.12:2003, Masonry units and segmental pavers and flags — Methods of test,
 - Method 2: Assessment of mean and standard deviation;
 - Method 4: Determining compressive strength of masonry units;
 - Method 6: Determining potential to effloresce;
 - Method 10: Determining resistance to salt attack;
 - Method 12: Determining coefficients of contraction; and
 - Part 3: Determining dimensions;
- AS 4773.1:2015 Masonry in small buildings;
- BS EN 1304:2013 Clay roofing tiles and fittings. Product definitions and specifications;
- C34-23 Standard Specification for Structural Clay Load bearing Wall tile;
- C56-22 Standard Specification for Structural Clay Non-load bearing Tile;
- C62-23 Standard Specification for Building Brick (Solid Masonry Units Made from Clay or Shale);
- C652-22 Standard Specification for Hollow Brick (Hollow Masonry Units Made from Clay or Shale).

VI. Declared Units

This PCR's declared unit is a square metre of masonry of a given mm thickness and kg/m³ density.

VII. Functional Units

The functional unit is 20, 60 or 100 years use **roofing, cladding, paving, piping or lining**/m² cradle to grave and beyond to D 1 to D3.

References

AS 2049-2002 Roof tiles

AS 3700:2018 Masonry structures

AS/NZS 4455.1:2008 Masonry units, pavers, flags and segmental retaining wall units - Masonry units

AS/NZS 4456.11:2003 Masonry units, segmental pavers and flags — Methods of test, Method 11: Determining coefficients of expansion

AS/NZS 4456.12:2003, Masonry units and segmental pavers and flags — Methods of test, Method 12: Determining coefficients of contraction

AS/NZS 4456.10:2003 Masonry units, segmental pavers and flags — Methods of test, Method 10: Determining resistance to salt attack

AS/NZS 4456.6:2003 Masonry units, segmental pavers and flags - Methods of test, Method 6: Determining potential to effloresce

AS/NZS 4456.4:2003 Masonry units, segmental pavers and flags — Methods of test, Method 4: Determining compressive strength of masonry units

AS/NZS 4456.3:2003 Masonry units, segmental pavers and flags — Methods of Test, Part 3: Determining dimensions

AS/NZS 4456.2:2003 Masonry units, segmental pavers and flags — Methods of test, Method 2: Assessment of mean and standard deviation

AS 4773.1:2015 Masonry in small buildings

Bown, A.R., (2007), *Whole-Life Performance Of Clay Brickwork Masonry [Doctoral Thesis, Leeds Metropolitan University]*

C34-23 Standard Specification for Structural Clay Load bearing Wall tile

C56-22 Standard Specification for Structural Clay Non-load bearing Tile

C62-23 Standard Specification for Building Brick (Solid Masonry Units Made from Clay or Shale)

C652-22 Standard Specification for Hollow Brick (Hollow Masonry Units Made from Clay or Shale)

BS EN 1304:2013 Clay roofing tiles and fittings. Product definitions and specifications

ISO 15686-1 Buildings and constructed assets - Service life planning - Part 1: General principles and framework

RICS professional standards and guidance, UK Whole life carbon assessment for the built environment (2017)

Normative References

CENT/TR 15941 - 2024: Sustainability of construction works – Environmental Product Declarations-Methodology for the selection of generic data, CEN

EN 15942 - 2014: Sustainability of construction works - Environmental Product Declarations-Communication formats: business to business, CENCML LCA methodology, Institute of Environmental Sciences (CML), Faculty of Science, University of Leiden, Netherlands

EN 15643-1: 2010: Sustainability of construction works - Sustainability assessment of buildings – Part 1 general framework, CEN

EN 15643-2: 2021: Sustainability of construction works - Sustainability assessment of buildings – Part 2 framework for assessment of environmental performance, CEN

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

EN15978 - 2011: Sustainability of construction works - Assessment of environmental performance of buildings - Calculation method, European Committee for Standardisation, CEN

ISO 9001:2008 Quality Management Systems Requirements

ISO 14001:2015 Environmental management systems: Requirements with guidance for use

ISO 14004:2016 EMS: General guidelines on principles, systems & support techniques

ISO 14015:2022 EMS: Environmental assessment of sites & organizations (EASO)

ISO 14020:2022 Environmental labels & declarations — General principles

ISO 14024:2018 Environmental labels & declarations -- Type I Principles & procedures

ISO 14025:2006 Environmental labelling & declarations Type III EPDs Principles & procedures

ISO 14031:1999 EM: Environmental performance evaluation: Guidelines

ISO 14040:2006 EM: Life cycle assessment (LCA): Principles & framework, London, BSI, 2006.

ISO 14044:2006 EM: LCA: Requirement & guideline LCI; LCIA Interpretation, London, BSI, 2006.

ISO 14064-1:2018 EM: Greenhouse Gases- Part 1

ISO 14644-1:2006 Cleanrooms and associated controlled environments – Part 1: Classification of air cleanliness

ISO 15392:2008 Sustainability in building construction General principles

ISO 15686-1:2011 Buildings & constructed assets Service life planning Part 1: General principles

ISO 15686-2:2012 Buildings & constructed assets Service life (SL) planning Part 2: prediction

ISO 15686-8:2008 Buildings & constructed assets SL planning Part 8: Reference & estimation

ISO 21929-1:2011 Sustainability in building construction Sustainability indicators Part 1 Framework

ISO 21930:2017 Building construction: Sustainability, Environmental declaration of building products

ISO 21931-1:2017 Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services.

ISO/TR 21932:2013 Sustainability in buildings and civil engineering works -- A review of terminology

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