



# Global GreenTag<sup>Cert™</sup>

INTERNATIONAL EPD PROGRAM

Masonry Units: Brick Blocks, Pavers, Tiles  
subPCR MAU:2024 V1

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**GREEN TAG**  
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green product certification  
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**GLOBAL GREENTAG INTERNATIONAL PTY LTD**

**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**

## 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<sup>Cert™</sup> 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 17/08/2024 and  
 Period of validity to 17/08/2029

## 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/m<sup>3</sup> density.

## VII. Functional Units

The functional unit is 20, 60 or 100 years use **roofing, cladding, paving, piping or lining**/m<sup>2</sup> 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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