



GLOBAL GREENTAG INTERNATIONAL PTY LTD

ENVIRONMENTAL PRODUCT DECLARATION (EPD) PROGRAM

In accordance with ISO 14025 and EN 158042+A2 2019

Type III EPDs

PRODUCT CATEGORY RULES

Ceramic Tile SubPCR CTL:2026 v2

Issue date: 7th September 2026

Valid to: 7th September 2031

PRODUCT CATEGORY RULES

Glossary of Terms

- Program Operators are organizations regulating EPD production, quality and conformance.
- General Program Instructions enable program operators to regulate and administer EPD quality.
- Life Cycle assessment (LCA) models product system life cycle flows and potential impacts
- EPDs quantify environmental data and additional environmental information on set parameters.
- PCRs guide development of Type III environmental declarations for product sets.
- Declared Units specify construction product brand, type and reference quantities.
- Functional Units specify a product system function, quantities, performance and reference period.

Program Operator

The Global GreenTag International EPD program has comprehensive guidelines for consistent and transparent EPD development. General Program Instructions (GPI) Version 2.3 show administrative needs. The GPI annex contains the general LCA method and rules this document supplements. Users include specifiers, manufacturers and stakeholders.

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1 Master PCRs

The European Committee for Standardisation (CEN) standard EN 15804+A2 2019 serves as Master Product Category Rules (PCRs) for developing all construction product EPDs. To support lower impact building EPDs provide quantified, harmonized environmental data for construction products or services, including information on health-related emissions in building use. The Master PCR for EPDs ensures:

- Consistent, verifiable data based on LCA.
- Reliable technical data to evaluate building environmental performance.
- Accurate data to assess building health performance.
- Application contexts to compare construction products.
- Effective inter-businesses communication on environmental information.
- A platform to communicate environmental data to consumers.

2 Sub PCRs

Underlying sub-PCRs define product sets with specified functionality, and as new environmental health laws are enacted, they are developed with file names and version clearly identified. They define valid consistent LCA scope and units for EPDs of comparable products. The PCR Moderator is Delwyn Jones, Principal Scientist, The Evah Institute of Ecquate Pty Ltd.

2.1 Authors

This sub-PCR, compiled by Delwyn Jones of Ecquate Pty Ltd. Dr Nana Bortsie-Aryee, Program Director, Global GreenTag International approved rules adoption for the Global GreenTagCert™ EPD program.

2.2 Terms of Validity

Product Category: Ceramic Tile Sub-PCR CT:2026 V2. Issued 07/08/2026 valid to 07/08/2031

2.3 System boundary

The LCA scope is cradle to grave as defined by ISO14025 .

The system boundary with nature includes resource acquisition, processing, manufacture, transport, installation, use plus waste to end of life.

2.4 Information Modules

The EPD shall define each product life stage information module modelled. Figure 1 depicts modules A1 to C4 within the system boundary and D1 to 3 beyond. All known operations and stages in A1 to D3 are included and any modules with zero flows is to be declared.

Information	Actual			Scenarios														Assumed		
Stage	Product			Construct		Building							End-of-Life				Beyond			
						Fabric					Operate									
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D1	D2	D3	
Operation	Resource	Transport	Manufacture	Transport	Construct	Use	Maintain	Repair	Replace	Refurbish	Energy use	Water use	Demolish	Transport	Process Waste	Disposal	Reuse	Recovery	Recycling	

Figure 1 Modules A1 to C4 Within the System Boundary and D Beyond

2.5 Product Set Definition

This Ceramic sub-PCR is compliant to EN15804+A2 2019 +A2, ISO 14025 standards and those listed in Appendix A. Applications include dry or wet areas of commercial, residential and or industrial interior and exterior buildings. Products include fired ceramic wall, floor, paving, facade and countertop tiles made of:

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- clay, sand, stone, glass, pigment, mineral, glaze and or and composite material of
- earthenware, stoneware, porcelain, refractory and brick types.

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 requires performance to meet International and Australian Standards including:

- ASTM C1145: Defines standard terminology for advanced ceramics.
- AS 3700 Masonry Structures
- AS-3958 Installation of ceramic stone and tiles.
- AS 4586: Classifies slip resistance for new pedestrian surfaces
- AS 4773 Masonry for Small Buildings
- AS ISO 13006 Ceramic Tiles Definitions, Classifications, Characteristics and Marking.
- AS ISO 13007 Ceramic Tiles Grouts and Adhesives.
- ISO 10545-5: Ceramic tiles Part 5: Determination of impact resistance by etc
- ISO 10545-7: Ceramic tiles Part 7: Determination of resistance to surface abrasion etc
- ISO 14704: Measures the flexural strength of advanced ceramics at room temperature.
- ISO 20501: Tests the Weibull statistics for strength data to ensure reliability under stress
- ISO/TR 17870-2 Ceramic tiles Guidelines for installation Part 2. thin ceramic wall & floor tiles etc.

2.6 Declared Unit

The declared product and brand kg/m² floor, wall or counter tile for internal and or external applications.

2.7 Functional Unit

From cradle to grave 60 years use per kg or m² of declared unit plus beyond the system boundary.

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3 Appendix: A Normative References

EN 15643-1: 2021: Sustainability of construction works - Sustainability assessment of buildings – Part 1 general framework, CEN

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

CEN/TR 15942 - 2021: Sustainability of construction works - Environmental Product Declarations- Communication formats: business to business, CEN

CENCML LCA methodology, Institute of Environmental Sciences (CML), Faculty of Science, University of Leiden, Netherlands CEN

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

Intergovernmental Panel on Climate Change IPCC 2013, Global Warming Potential 100-year, IPCC Fifth Assessment Report Climate Change.

Intergovernmental Panel on Climate Change. 2021. Assessment Report 6 Climate Change 2021: The Physical Science Basis.

ISO 9001:2015 Quality Management Systems Requirements

ISO 14001:2018 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 14027: 2017 Environmental labels and declarations; Development of product category rules

ISO 14031:1999 EM: Environmental performance evaluation: Guidelines

ISO 14040:2006 EM: Life cycle assessment (LCA): Principles & framework

ISO 14044:2006 EM: LCA: Requirement & guideline for data review: LCI; LCIA, Interpretation results

ISO 14064:2006 EM: Greenhouse Gases: Organisation & Project reporting, Validation & verification

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 and constructed assets - Service life planning - Part 2: Service life prediction procedures.

ISO 15686-8:2008 Buildings and constructed assets - Service-life planning - Part 8: Reference service life and service-life estimation.

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

ISO 21930:2017 Sustainability in building construction: Environmental declaration of building products

ISO 21931-1:2017 Sustainability in building construction Framework for methods of assessment for environmental performance of construction works Part 1: Buildings

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