

Product Category Rules



Floor Coverings



Sub PCR FC:2019v1



GLOBAL GREENTAG INTERNATIONAL PTY LTD

ENVIRONMENTAL PRODUCT DECLARATION (EPD) PROGRAM

Type III EPDs

Compliant to

EN 15804 +A1, ISO 14025 and ISO 21930

For construction products

Sub Product Category Rules (PCR) based on Life Cycle Analysis

Floorcoverings sub PCR 2019 FC V1

I. Application

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

II. Authors

These product category rules, compiled by Delwyn Jones, Director Sustainability, The Evah Institute a Division of Ecuate Pty Ltd have been customised for this product class by Saphy Hau, Product Assessor, Global GreenTag. Rules were approved for Global GreenTag adoption by David Baggs, Program Director, Global GreenTag International Pty Ltd.

III. Terms of Validity

- Product Category Rules Floorcoverings sub PCR 2019 FC V1
- PCR issue date 25/06/2019 and Period of validity to 25/06/2022

IV. Goal

The intended goal of this sub PCR is a guide for developing EPDs for sets of defined product with specified functionality. Users include specifiers, manufacturers and stakeholders. It is valid for all such defined products and related components according to standards and technical approvals herein.

V. Product Set Definition

The declared product set includes floorcovering used for buildings of all kinds including fabrications of:

- resilient, dry or wet areas, moisture resistant, carpet, felting, underlay or backing made from:
- woven, non-woven, homogenous, heterogeneous, melded, laminated, cast or extruded forms of:
- metal, wood, pulp, paper, polymer, vinyl, rubber, plaster, wool, hair, fibre, fabric or composites

Where relevant specifications must conform to International and Australian Standards including:

- Australian and New Zealand Standard AS/NZS 2111.1:1996 Textile Floor Coverings – Test and Measurements – Machine-made Textile Floor Coverings – Determination of Total Thickness and or;
- AS 1884 Floor coverings – Resilient sheet and tiles.
- ASTM F970 Standard Test Method for Static Load Limit and EN 425/ISO 4918 Chair Castors test.
- AS ISO 9239 Reaction to fire tests for flooring; BCA Spec C1.10 Reaction to Fire and BCA section C1.10a Fire Hazard Properties – Floors, Walls and Ceilings;
- AS/NZS 1860.1:2002 Particleboard Flooring-Specifications; EN ISO 10582:2012 Resilient Floorcoverings Heterogeneous Vinyl Floorcoverings Specification; EN ISO 105874: 2012 Resilient, Laminate and Textile Floorcoverings Classification;
- AS 4586 Slip resistance classification of new pedestrian surface materials
- EN 13893 Resilient, laminate and textile floor coverings; EN 660-2 Determination of wear resistance; EN ISO 10581 Resilient floor coverings specifications
- International Standards Association Standard ISO/TC 219 – Floor Coverings; ISO 14486:2012 Laminate Floor Covering – Specification

System outcomes and results are declared per unit mass and reflect product performance at reference conditions of exposure, strength, wear, temperature and humidity defined by 14025:2006, 6.7. The functional unit for cradle to grave EPDs reflects floorcovering service over 20 years in given sectors/m².

VI. Declared Unit

The declared unit is floorcovering/kilogram (kg) cradle to gate.

VII. Functional Unit

Here the functional unit is 20 years floorcovering use in buildings in given sectors/m² cradle to grave.

Normative References

- Australian and New Zealand Standard AS/NZS 2111.1:1996 Textile Floor Coverings – Test and Measurements – Machine-made Textile Floor Coverings – Determination of Total Thickness and or;
- AS 1884 Floor coverings – Resilient sheet and tiles.
- ASTM F970 Standard Test Method for Static Load Limit
- EN 425/ISO 4918 Resilient and Laminate floor coverings: Castor chair test
- AS ISO 9239 Reaction to fire tests for flooring;
- BCA Spec C1.10 Reaction to Fire and BCA section C1.10a Fire Hazard Properties – Floors, Walls and Ceilings;
- AS/NZS 1860.1:2002 Particleboard Flooring-Specifications
- CENT/TR 15941 - 2010: Sustainability of construction works – Environmental Product Declarations-Methodology for the selection of generic data, CEN
- CENT/TR 15942 - 2014: Sustainability of construction works - Environmental Product Declarations-Communication formats: business to business, CEN
- CML LCA methodology, Institute of Environmental Sciences (CML), Faculty of Science, University of Leiden, Netherlands
- EN ISO 10582:2012 Resilient Floorcoverings – Heterogeneous Vinyl Floorcoverings Specification;
- EN ISO 105874: 2012 Resilient, Laminate and Textile Floorcoverings Classification;
- AS 4586 Slip resistance classification of new pedestrian surface materials
- EN 660-2 Resilient floor coverings – Determination of wear resistance – Part 2: Frick-Taber test.
- EN ISO 10581 Resilient floor coverings Homogeneous poly(vinyl chloride) floor covering Specifications
- EN 15643-1: 2011: Sustainability of construction works - Sustainability assessment of buildings – Part 1 general framework, CEN
- EN 15643-2: 2011: Sustainability of construction works - Sustainability assessment of buildings – Part 2 framework for assessment of environmental performance, CEN
- EN 15804: 2012: Sustainability of construction works, Environmental product declarations, European Committee for Standardisation (CEN)
- EN15978 - 2011: Sustainability of construction works - Assessment of environmental performance of buildings - Calculation method, European Committee for Standardisation, CEN
- International Standards Association Standard ISO/TC 219 – Floor Coverings
- ISO 14486:2012 Laminate Floor Covering – Specification
- ISO 6707-1:2004 Building and civil engineering: Vocabulary Part 1: General terms
- ISO 9001:2008 Quality Management Systems Requirements
- ISO 14001:2004 Environmental management systems: Requirements with guidance for use
- ISO 14004:2004 EMS: General guidelines on principles, systems & support techniques
- ISO 14015:2001 EMS: Environmental assessment of sites & organizations (EASO)
- ISO 14020:2000 Environmental labels & declarations — General principles
- ISO 14024:2009 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 14050:2009 Environmental management: Vocabulary
- 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 & 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 21930:2007 Building construction: Sustainability, Environmental declaration of building products
 ISO 21931-1:2010 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

General References

Australian & New Zealand ([ANZECC Guidelines For Fresh & Marine Water Quality \(2000\)](http://www.environment.gov.au/water/quality/national-water-quality-management-strategy))
<http://www.environment.gov.au/water/quality/national-water-quality-management-strategy>

Basel Convention (2011) Control of Transboundary Movement of Hazardous Waste & Disposal
<http://www.basel.int/portals/4/basel%20convention/docs/text/baselconvention-text-e.pdf>

BRE Global, BRE Environmental Profiles 2013: Product Category Rules for Type III EPD of construction products to EN 15804:2012+A1:2013, PN 514. Watford, BRE, 2014

Boustead (2014) Model 6 LCI database <http://www.boustead-consulting.co.uk/publicat.htm> USA & UK

EcoInvent (2014) LCI Model 3 database <http://www.ecoinvent.ch/> EcoInvent, Switzerland

Evah (2019) LCA Tools, Databases & Methodology at <http://www.evah.com.au/tools.html>

Franklin Associates (2014) US LCI Database <http://www.fal.com/index.html> Eastern Research Group US

GreenTag™ Certification (2019) http://www2.ecospecifier.org/services_offered/greentag_certification

GreenTag™ (2019) Product Category Rules <http://www.globalgreentag.com/greentag-epd-program>

Jones D., Mitchell. P. & Watson P. (2004) LCI Database for Australian Commercial Building Material: Report 2001-006-B-15, Sustainable Built Assets, CRC for Construction Innovation

Jones D.G et al. (2009) Chapter 3: Material Environmental LCA in Newton P et al., (eds) [Technology, Design & Process Innovation in the Built Environment](#), Taylor & Francis, UK

IBISWorld (2019) Market Research, <http://www.ibisworld.com.au/> IBISWorld Australia

International Energy Agency, Energy Statistics 2018 <http://www.iea.org/countries/>

Plastics Europe (2019) Portal <http://www.plasticseurope.org/plastics-sustainability/eco-profiles.aspx>

Pre (2017) SimaPro 8 Software, Netherlands <http://www.pre-sustainability.com/simapro-manuals>

Myhre et al, 2013, Anthropogenic and Natural Radiative Forcing Chapter 8 in Stocker et al (eds.) Climate Change 2013, AR5 of the IPCC, Cambridge U Press UK. <http://www.ipcc.ch/report/ar5/wg1/>

Roache S. K. (2012) IMF Report WP/12/115 China's Impact on World Commodity Markets <http://www.imf.org/external/pubs/ft/wp/2012/wp12115.pdf> International Monetary Fund

UNEP (2014) Persistent Organic Pollutants <http://www.chem.unep.ch/pops/> The UN

USLCI (2019) Life-Cycle Inventory Database <https://www.lcacommons.gov/nrel/search>, USA

U.S. Geological Survey National Minerals (2019) <http://minerals.usgs.gov/minerals/pubs/> USA

US EPA (2014) Database of Sources of Environmental Releases of Dioxin like Compounds in U.S <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=20797> p 1-38, 6-9, USA.

The Evah Institute, A Division of Ecquate Pty Ltd
ABN 15129886675
PO Box123, Thirroul NSW 2515 Australia
<http://www.evah.com.au>
Phone +61 (0)7 5545 0998

Global GreenTag International Pty Ltd
ABN 70155663013
PO Box 311, Cannon Hill QLD 4170Australia
www.globalgreentag.com
Tel. + 617 3399 9686