

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

| | |
|--------------------------|--------------------------------------|
| Owner of the Declaration | STARK Group A/S |
| Publisher | Institut Bauen und Umwelt e.V. (IBU) |
| Programme holder | Institut Bauen und Umwelt e.V. (IBU) |
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| Valid to | 29.01.2031 |

20 mm Porcelain Tile TERRALIS A/S

www.ibu-epd.com | <https://epd-online.com>



General Information

TERRALIS A/S

Programme holder

IBU – Institut Bauen und Umwelt e.V.
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10117 Berlin
Germany

Declaration number

EPD-STR-20250507-CBA1-EN

This declaration is based on the product category rules:

Ceramic tiles and panels, 01.08.2021
(PCR checked and approved by the SVR)

Issue date

30.01.2026

Valid to

29.01.2031



Dipl.-Ing. Hans Peters
(Chairman of Institut Bauen und Umwelt e.V.)



Florian Pronold
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20 mm Porcelain Tile

Owner of the declaration

STARK Group A/S
C.F. Richs Vej 115
2000 Frederiksberg
Denmark

Declared product / declared unit

1 m² of glazed and unglazed porcelain tiles 20 mm

Scope:

The EPD applies to 1 m² of glazed and unglazed porcelain tiles, 20 mm, representative product, produced by Terralis A/S in Turkey. The final commissioning takes place in Germany, Osterweddingen. The results presented correspond to an average EPD of Terralis A/S. The LCA data refer to the annual average for the year 2024. The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as *EN 15804*.

Verification

| | |
|--|------------|
| The standard EN 15804 serves as the core PCR | |
| Independent verification of the declaration and data according to ISO 14025:2011 | |
| <input type="checkbox"/> | internally |
| <input checked="" type="checkbox"/> | externally |



Erik Poppe,
(Independent verifier)

Product

Product description/Product definition

Porcelain tiles contain inorganic materials such as clay, kaolin, calcite and feldspar, but they may also include other raw materials. Terralis A/S porcelain tiles come in glazed and non-glazed porcelain tiles with non-glazed matt, glossy or anti-slip surface options, in the dimensions of 40x80 cm, 40x120 cm, 45x90 cm, 60x60 cm, 80x80 cm, 60x90 cm, 60x120cm, 75x75 cm and 100x100 cm, allow the designer to meet the requirements of projects, thanks to the superior technical characteristics, as well as colours and patterns. Porcelain tiles are fully vitrified ceramic tiles with water absorption of less than 0.5 %.

The EPD covers the manufacturing of 20 mm glazed and unglazed porcelain tiles in Turkey, and the final commissioning takes place in Germany, Osterweddingen. UN CPC code for porcelain tiles is 3731. The assessment is based on the most produced tile type within the product range for 1 m² of porcelain tile.

(EU) Directive No. 305/2011 (CPR) applies for placing the product on the market in the EU/EFTA (with the exception of Switzerland). The product requires a Declaration of Performance taking into consideration EN 14411:2012, Ceramic tiles – Definition, classification, characteristics, evaluation of conformity and marking. The respective national regulations apply for usage.

Application

Ceramic porcelain tiles are used for inside and outside applications. Thanks to its superior technical characteristics, the product may be utilised in the following areas: commercial buildings, residential areas, public buildings, education and cultural buildings, floors, walls and exterior facades; and floors of outdoor facilities such as gardens, terraces, pool sides and recreational areas.

Technical Data

Tests such as dimension and surface quality, physical and chemical properties are applied to porcelain tiles. All Terralis A/S tiles ready for delivery pass these tests.

Constructional data

| Name | Value | Unit |
|--|--|-------------------|
| Water absorption acc. to EN ISO 10545-3 | ≤0.5 % (w/w) | mg |
| Break load acc. to DIN EN ISO 10545-4 | >1300 N for thickness ≥ 7.5 mm >700 N for thickness < 7.5 mm | N |
| Flexural strength acc. to DIN EN ISO 10545-4 | 35 | N/mm ² |
| Resistance to household chemicals, pool salts acc. to EN ISO 10545-13 | min. Class B | |
| Resistance to chemicals and staining acc. to DIN EN ISO 10545-13 (optional) | min. Class 3 (for glazed tiles) | - |
| Non-slip properties (class A, B oder C) acc. to DIN 51130 (only floor coverings) | PEI I–V (for glazed tiles) | - |
| Resistance to deep abrasion acc. to DIN EN ISO 10545-6 (unglazed floor coverings) | 175 mm ³ (for unglazed tiles) | - |
| Resistance to surface wear (class) acc. to DIN EN ISO 10545-7 (only floor coverings) | R9 – R13 (DIN 51130) A, B, C (DIN 51097) | - |

All other technical structural data in accordance with PCR Part B was not listed as it is not of relevance to the declared product in practice and/or does not correspond with the technical structural characteristics. Product performance values in line with the Declaration of Performance in terms of its essential characteristics in accordance with EN 14411:2012: Ceramic tiles – Definition, classification, characteristics, evaluation of conformity, marking and national requirements. Voluntary information on the product: dependent on the area of application in accordance with EN 16165.

Base materials/Ancillary materials

Main raw materials for porcelain tiles, 20 mm:

| Name | Value | Unit |
|---------------|-----------|-------------------|
| Clay | 35 - 40 % | kg/m ² |
| Feldspar | 25 - 30 % | kg/m ² |
| Kaolin | 10 - 15 % | kg/m ² |
| Calcite | 5 - 10 % | kg/m ² |
| Ceramic Waste | 0 -15 % | kg/m ² |
| Other | < 1 % | kg/m ² |

Auxiliary substances/additives:

- Dispersant
- Pigment
- Binder
- Rheological additives

This product contains substances listed in the *candidate list* (date: 24.04.2025) exceeding 0.1 percentage by mass: no.

Reference service life

The reference service life for ceramic tiles is generally significantly longer than 50 years, confirmed by the list of service lives for components issued by the BNB (BNB 2017). The disclosure of this service life is not based on ISO 15686.

Manufacturing

Porcelain tiles include several different products with different recipes. According to the recipe, raw materials are loaded into the mills for wet grinding and to form a slurry. The slurry then is spray dried to form granules and after the sieving process

Terralis

stored in the press-feeding silos ready for dry compaction. Hydraulic presses are used for dry compaction to form green tile. Green tiles are then dried in a fast vertical-drying unit to remove the excess humidity before glazing applications or might remain unglazed. Within the glazing unit printing and other surface design applications are performed. Tiles are then fired at high temperatures to form a hard body. After quality checks, tiles are packed for dispatch.

The manufacturer is subject to initial, internal and external monitoring in accordance with the Construction Products Regulation ((EU) Regulation No. 305/2011). Internal monitoring is performed on the basis of a quality management system (QMS) in accordance with or based on EN 14411, ISO 9001 and ISO 50001. External monitoring is performed by independent certification agencies (notified bodies).

Product Processing / Installation

Porcelain tiles are fixed to the floor and walls using tile cement and subsequently the seams are filled with mortar.

Packaging

The tiles are packed in cardboard boxes, wrapped with polyethylene film and plastic straps and stacked on wooden pallets. The amount of packaging material can vary according to the tile size.

The packaging end of life phase can include (according to Eurostat 2019):

- Paper: recycling, energy recovery, disposal;
- Plastic: recycling, energy recovery, disposal;
- Wood: reuse, energy recovery, landfill. The end of the service life may involve various disposal or recycling options, which can be applied depending on the country-specific systems within Europe.

Reuse Phase

Depending on the quantity and material, tiles can be reused in line with their original application when buildings are deconstructed in a targeted manner. Likewise, tiles can remain on the surface and be glued over. Single-variety element residue can be taken back by fireclay manufacturers and reused in ground form as leaning agents in production. This practice has been applied with broken products for decades. The possibilities of further use involve aggregates for crushed brick concrete, as filling or bulk material in the area of road-making and civil engineering.

Disposal

Where the recycling options indicated above are not practical, element residue, broken products and product residue incurred on the building site are easy to dispose of and do not pose any risks for the environment. Waste key: EWC 17 01 17 (tiles and ceramic). Owing to the chemically neutral, inert and immobile performance of ceramic tiles, they can be stored in class 0 and 1 landfills in accordance with the TA Siedlungsabfall (Technical Guideline on Domestic Waste).

LCA: Calculation rules

Declared Unit

The product declared here is a tile from Stark GmbH with the designation 20 mm porcelain tile as a representative product from the Stark GmbH tile portfolio. The declared unit refers to 1 m² of the product. The packaging is also included in the calculation, with a weight of 0.7899 kg per declared unit.

Declared unit and mass reference

| Name | Value | Unit |
|---------------|-------|-------------------|
| Declared unit | 1 | m ² |
| Grammage | 44.76 | kg/m ² |

System boundary

Type of EPD: From the cradle to the factory gate with modules C1-C4 and module D. The following information modules are defined as system boundaries in this study:

Production stage (A1- A3):

- A1, Raw material,
- A2, Transport to the manufacturer,
- A3, Production.

End of life (C1- C4):

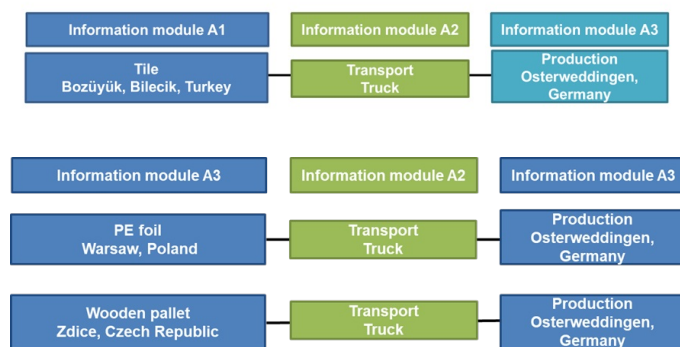
- C1, Dismantling/demolition,
- C2, Transport,
- C3, Waste treatment,
- C4, Disposal.

Reuse, recovery and recycling potential (D)

A total of eight information modules are taken into account in order to accurately record the indicators and environmental impacts of the declared unit. Information module A1 uses EPD No. EPD-IES-0017746, which contains 10.58% secondary material and part of the packaging. Information modules A2 to A3 cover transport to the production site, packaging, and the

production processes of the product itself. 100% of the electricity requirement is covered by the German electricity mix (DE: residual grid mix Sphera with a GWP of 0.879 kg CO₂eq. per 3.6 MJ).

The intermediate products are sourced from Turkey and the EU and transported by truck. The following flow charts illustrate the underlying production process.



Information modules C1 to C4 deal with the dismantling or demolition of the product from the building, transport to waste disposal, waste treatment, and final disposal of the product. In addition, information module D deals with the possibilities of reuse, recovery, and recycling. For the EoL scenario, the approach of 30% landfill and 70% material recycling was adopted, where the ceramic tiles are crushed and used as a mineral substitute material in road and civil engineering, thereby replacing natural gravel.

Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product's lifespan: Europe

Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken

into account. The databases *Sphera LCA for Experts v.2025.2* and *Ecoinvent v3.11* were used. The EPD *EPD-IES-0017746* for Module A1 used the Ecoinvent database v3.10 and the LCA software *SimaPro v9.6*.

LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

The values for biogenic carbon are not shown in the results because A5 is not declared. Biogenic carbon is disposed of in A3 and is therefore considered CO₂-neutral.

Information on describing the biogenic carbon content at factory gate

| Name | Value | Unit |
|---|-------|------|
| Biogenic carbon content in accompanying packaging | 4.48 | kg C |
| biogenic carbon content of upstream packaging | 0.038 | kg C |

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO₂.

End of life (C1-C4)

The removal of the tiles from the building is considered in information module C1. Demolition is carried out using an electric chisel, with an energy consumption of 0.5 MJ per declared unit. Electricity consumption is based on the European electricity mix.

The construction waste generated is transported by truck over a

distance of 50 km to the nearest waste processing plant. The C3 information module models the waste treatment of waste generated during the demolition of the building from the declared unit. The RER: Construction Waste Treatment Plant is used as the background data set.

The modeling assumes a material loss of approximately 3% during treatment, which goes to landfill. Subsequently, 30% of the remaining material is landfilled and 70% is recycled in accordance with the end-of-life scenario.

| Name | Value | Unit |
|--|--------|------|
| Collected separately waste type waste type | 44.76 | kg |
| Recycling | 30.392 | kg |
| Landfilling | 13.025 | kg |

Reuse, recovery and/or recycling potentials (D), relevant scenario information

For information module D, it is stated that 70% of the product is sent for material recycling. Only the net flow was taken into account, i.e. the amount of material that is actually available for recycling after deducting losses in end-of-life treatment.

| Name | Value | Unit |
|----------|--------|------|
| Net Flow | 25.653 | kg |

LCA: Results

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

| Product stage | | | Construction process stage | | Use stage | | | | | | | End of life stage | | | | Benefits and loads beyond the system boundaries |
|---------------------|-----------|---------------|-------------------------------------|----------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|---|
| Raw material supply | Transport | Manufacturing | Transport from the gate to the site | Assembly | Use | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | De-construction demolition | Transport | Waste processing | Disposal | Reuse-Recovery-Recycling-potential |
| A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
| X | X | X | MND | MND | MND | MND | MNR | MNR | MNR | MND | MND | X | X | X | X | X |

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 m² porcelain tile, 20 mm.

| Parameter | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
|---|----------------------------------|----------|----------|----------|----------|----------|-----------|
| Global Warming Potential total (GWP-total) | kg CO ₂ eq | 2.6E+01 | 6.93E-02 | 2.25E-01 | 1.24E-01 | 2E-01 | -5.14E-02 |
| Global Warming Potential fossil fuels (GWP-fossil) | kg CO ₂ eq | 2.54E+01 | 6.92E-02 | 2.16E-01 | 1.23E-01 | 1.99E-01 | -5.2E-02 |
| Global Warming Potential biogenic (GWP-biogenic) | kg CO ₂ eq | 5.73E-01 | 4.48E-05 | 9.15E-03 | 3.96E-04 | 5.59E-04 | 9.62E-04 |
| Global Warming Potential luluc (GWP-luluc) | kg CO ₂ eq | 8.53E-03 | 3.62E-05 | 2.22E-05 | 1.06E-03 | 8.16E-04 | -3.14E-04 |
| Depletion potential of the stratospheric ozone layer (ODP) | kg CFC11 eq | 3.08E-07 | 8.6E-13 | 3.33E-14 | 2.41E-13 | 5.59E-13 | -3.94E-13 |
| Acidification potential of land and water (AP) | mol H ⁺ eq | 8.22E-02 | 1.03E-04 | 1.06E-03 | 6.22E-04 | 1.41E-03 | -2.69E-04 |
| Eutrophication potential aquatic freshwater (EP-freshwater) | kg P eq | 1.25E-03 | 1.9E-08 | 5.47E-08 | 3.07E-07 | 2.97E-07 | -1.31E-07 |
| Eutrophication potential aquatic marine (EP-marine) | kg N eq | 3.37E-02 | 2.79E-05 | 5.18E-04 | 2.89E-04 | 3.68E-04 | -9.7E-05 |
| Eutrophication potential terrestrial (EP-terrestrial) | mol N eq | 3.69E-01 | 3.04E-04 | 5.7E-03 | 3.14E-03 | 4.01E-03 | -1.06E-03 |
| Formation potential of tropospheric ozone photochemical oxidants (POCP) | kg NMVOC eq | 9.26E-02 | 7.83E-05 | 1.07E-03 | 7.71E-04 | 1.1E-03 | -2.56E-04 |
| Abiotic depletion potential for non fossil resources (ADPE) | kg Sb eq | 4.41E-05 | 5.09E-09 | 6.44E-09 | 1.25E-07 | 1.23E-08 | -5.63E-09 |
| Abiotic depletion potential for fossil resources (ADPF) | MJ | 1.82E+02 | 1.26E+00 | 2.98E+00 | 2.27E+00 | 2.61E+00 | -7.81E-01 |
| Water use (WDP) | m ³ world eq deprived | 1.17E+01 | 6.93E-02 | 2.25E-01 | 1.22E-01 | 1.99E-01 | -5.14E-02 |

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 m² porcelain tile, 20 mm.

| Parameter | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
|---|----------------|----------|----------|----------|----------|----------|-----------|
| Renewable primary energy as energy carrier (PERE) | MJ | 4.89E+01 | 2.09E-01 | 2.15E-02 | 2.22E-01 | 5.05E-01 | -2.82E-01 |
| Renewable primary energy resources as material utilization (PERM) | MJ | 1.21E+01 | 0 | 0 | 0 | 0 | 0 |
| Total use of renewable primary energy resources (PERT) | MJ | 6.1E+01 | 2.09E-01 | 2.15E-02 | 2.22E-01 | 5.05E-01 | -2.82E-01 |
| Non renewable primary energy as energy carrier (PENRE) | MJ | 3.53E+02 | 1.26E+00 | 2.98E+00 | 2.27E+00 | 2.61E+00 | -7.81E-01 |
| Non renewable primary energy as material utilization (PENRM) | MJ | 1.04E+00 | 0 | 0 | 0 | 0 | 0 |
| Total use of non renewable primary energy resources (PENRT) | MJ | 3.54E+02 | 1.26E+00 | 2.98E+00 | 2.27E+00 | 2.61E+00 | -7.81E-01 |
| Use of secondary material (SM) | kg | 4.74E+00 | 0 | 0 | 0 | 0 | 2.57E+01 |
| Use of renewable secondary fuels (RSF) | MJ | 0 | 0 | 0 | 0 | 0 | 0 |
| Use of non renewable secondary fuels (NRSF) | MJ | 0 | 0 | 0 | 0 | 0 | 0 |
| Use of net fresh water (FW) | m ³ | 1.26E-01 | 2.48E-04 | 2.34E-05 | 5.93E-04 | 6.29E-04 | -2.29E-04 |

RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2: 1 m² porcelain tile, 20 mm.

| Parameter | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
|-------------------------------------|------|----------|----------|----------|----------|----------|-----------|
| Hazardous waste disposed (HWD) | kg | 9.98E-03 | 2.51E-10 | 1.13E-10 | 3.13E-10 | 5.75E-10 | -4.62E-10 |
| Non hazardous waste disposed (NHWD) | kg | 3.06E+00 | 3.18E-04 | 2.65E-04 | 5.72E-04 | 1.3E+01 | -1.07E+00 |
| Radioactive waste disposed (RWD) | kg | 5.25E-04 | 1.59E-04 | 4.99E-06 | 2.88E-05 | 2.73E-05 | -5.16E-05 |
| Components for re-use (CRU) | kg | 0 | 0 | 0 | 0 | 0 | 0 |
| Materials for recycling (MFR) | kg | 0 | 0 | 0 | 3.04E+01 | 0 | 0 |
| Materials for energy recovery (MER) | kg | 0 | 0 | 0 | 0 | 0 | 0 |
| Exported electrical energy (EEE) | MJ | 0 | 0 | 0 | 0 | 0 | 0 |
| Exported thermal energy (EET) | MJ | 0 | 0 | 0 | 0 | 0 | 0 |

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: 1 m² porcelain tile, 20 mm.

| Parameter | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
|--|-------------------|-------|----|----|----|----|----|
| Incidence of disease due to PM emissions (PM) | Disease incidence | ND | ND | ND | ND | ND | ND |
| Human exposure efficiency relative to U235 (IR) | kBq U235 eq | ND | ND | ND | ND | ND | ND |
| Comparative toxic unit for ecosystems (ETP-fw) | CTUe | ND | ND | ND | ND | ND | ND |
| Comparative toxic unit for humans (carcinogenic) (HTP-c) | CTUh | ND | ND | ND | ND | ND | ND |
| Comparative toxic unit for humans (noncarcinogenic) (HTP-nc) | CTUh | ND | ND | ND | ND | ND | ND |

| | | | | | | | |
|--------------------------|-----|----|----|----|----|----|----|
| Soil quality index (SQP) | SQP | ND | ND | ND | ND | ND | ND |
|--------------------------|-----|----|----|----|----|----|----|

Disclaimer 1 – for the indicator “Potential Human exposure efficiency relative to U235”. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “potential soil quality index”. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

References

EN 15804

EN 15804:2012+A1 2013, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.

EN 15804

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DIN EN ISO 14025

DIN EN /ISO 14025:2011, Environmental labels and declarations - Type III Environment Declarations - Principles and Procedures

EN 16165:2021 – Determination of slip resistance of pedestrian surfaces – Methods of evaluation

European Committee for Standardization (CEN) (Hrsg.) Determination of slip resistance of pedestrian surfaces – Methods of evaluation (2021)

DIN EN ISO 14025

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DIN 51130:2014-02
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EN 14411: 2012

DIN EN 14411: 2012, Ceramic tiles – Definition, classification, characteristics evolution of conformity and marking.

EN 14411: 2016

DIN EN 14411:2016-12
Ceramic tiles - Definition, classification, characteristics, evaluation of conformity and marking

EN 15804+A2

EN 15804:2019-04+A2, Sustainability of construction works – Environmental product declarations – Basic rules for the product category of construction products.

EN/TR 15941

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ISO 9001

DIN EN ISO 9001: 2015-11
Quality management - Requirements

ISO 10545-3

DIN EN ISO 10545-3: 2018-06
Ceramic tiles - Determination of water absorption, apparent porosity, apparent relative density and bulk density

ISO 10545-4

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Ceramic tiles - Part 4: Determination of modulus of rupture and breaking strength (ISO 10545-4:2019); German version EN ISO 10545-4:2019

ISO 10545-6

DIN EN ISO 10545-6:1995-11
Ceramic tiles - Part 6: Determination of resistance to deep abrasion for unglazed tiles

ISO 10545-7

DIN EN ISO 10545-7: 1999-03
Ceramic tiles - Part 7: Determination of resistance to surface abrasion for glazed tiles (ISO 10545-7:1996); German version EN ISO 10545-7:1999

ISO 10545-13

DIN EN ISO 10545-13:1997-12
Ceramic tiles - Part 13: Determination of chemical resistance (ISO 10545-13:1995); German version EN ISO 10545-13:1997

ISO 15686:2011 – Buildings and constructed assets: Service life planning

International Organization for Standardization (ISO) (Hrsg.) Reference service life determination for construction products (2011)

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Environmental management systems - Requirements with guidance for use: Specifications for systematic energy management

Other literature:

BNB 2017

BBSR Table 'Nutzungsdauern von Bauteilen zur Lebenszyklusanalyse nach BNB' (Useful life of components for life cycle assessments in accordance with the Sustainable Building assessment system (BNB)), Federal Ministry of Transport, Building and Urban Development (BBSR), Presentation II on Sustainable Building; available online at https://www.nachhaltigesbauen.de/fileadmin/pdf/Nutzungsdauer_Bauteile_2-24.pdf; last revised February 2017

ecoinvent 3.11:

Hintergrunddatenbank: ecoinvent 3.11

Zürich: ecoinvent (Hrsg.)
<http://www.ecoinvent.org>
(15.11.2024)

EPD

EPD International AB
VitrA Karo
EPD registration number: EPD-IES-0017746

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European Chemicals Agency (ECHA) – Candidate List of Substances of Very High Concern for Authorization

Candidate List of SVHC (Stand: 28.01.2026)

EWC

European Waste Catalogue in accordance with the Ordinance governing the European List of Wastes (List of Wastes – AVV)

EU) Directive No. 305/2011

(EU) Directive No. 305/2011 of the European Parliament and Council dated 9 March 2011 establishing harmonised conditions for marketing construction products and replacing

Council Guideline 89/106/EEC of significance for the EWR

IBU 2021

Institut Bauen und Umwelt e.V.: General instructions for the EPD program of the Institut Bauen und Umwelt e.V., Version 2.0, Berlin: Institut Bauen und Umwelt e.V., 2021 www.ibu-epd.com

Product Category Rules Construction Products Part A

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Product Category Rules Part B

Ceramic tiles and panels, 01.08.2021

SimaPro 9.6 – LCA Software for EPDs: Methodical Modeling

Amersfoort; PRé Sustainability (Hrsg.)

Life Cycle Assessment Database and Modelling Tools | SimaPro

Sphera

LCA for Experts: Holistic balancing

Leinfelden-Echterdingen; Sphera Solution GmbH (Hrsg.)

Product Sustainability Data Search | Sphera (GaBi)
(19.05.2025)



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