

# GlobalEPD

A VERIFIED ENVIRONMENTAL DECLARATION



Environmental  
Product  
Declaration

EN ISO 14025: 2006

EN 15804: 2012+A2:2019

EN 17160: 2019

## EQUIPE

# AENOR

## EQUIPE CERÁMICA, S.L.U.

### Ceramic Tiles. Earthenware tiles (BIII)

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# EQUIPE

## Owner of the Declaration

EQUIPE CERÁMICA, S.L.U.

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12122 Figueroles (Castellón), Spain

Ctra. CV-190, km 13,2  
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## LCA study



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# AENOR

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AENOR is a founding member of ECO Platform, the European Association of Environmental Product Declaration Verification Programmes.

The Standards EN 17160:2019 and EN 15804:2012+A2:2019 serve as the basis for the PCR.

Independent verification of the declaration and data, in accordance with the Standard ISO 14025:2006

☐ Internal

☒ External

Verification Agency

# AENOR

Product certification body accredited by ENAC under accreditation Nº 1/C-PR468

## 1. General Information

### 1.1. Description of the organisation

Equipe Cerámicas SLU was established the 27<sup>th</sup> September, 1999, and after a significant growth within the ceramic industry in the last years, it's currently the leading company in the sector of small format floor and wall tiles.

Equipe additional value is based in a product with an excellent design and high quality, a real compromise with the clients, and transparency, closeness and flexibility. That makes Equipe a company adapted to the new changes and in a progressive pursue of improvement.

In 2017, Equipe was included by Cepyme in the Cepyme500 program, whose aim is to identify, select and promote the top 500 Spanish companies that lead business growth and where value added, innovation and international projection is awarded.

Today, Equipe has more than 300 employees and its products are present around the world, being Europe and América its main markets.

### 1.2. Scope of the Declaration

This Environmental Product Declaration includes environmental information for a group of products manufactured in three production centres in a geographical and technological environment in Spain 2022.

The location of these production centres is shown below:

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The results shown the environmental performance of the Earthenware tile, as average weighted by production, as well as the environmental data of the tiles with the lowest and highest impact, thus narrowing down the results obtained in the LCA. The scope of this Environmental Product Declaration (hereinafter EPD) is from cradle to grave.

### 1.3. Life cycle and compliance

This EPD has been developed and verified in accordance with EN ISO 14025:2006 and EN 15804:2012+A2:2019 the following Category Rule:

| INFORMATION ABOUT PRODUCT CATEGORY RULES |                                          |
|------------------------------------------|------------------------------------------|
| Descriptive title                        | Product Category Rules for Ceramic Tiles |
| Registration code and version            | EN 17160:2019                            |
| Publication date                         | 2019                                     |
| Compliance                               | EN 15804:2012+A2:2019                    |
| Programme Manager                        | AENOR                                    |

This Environmental Statement includes the following life cycle stages:

**Limits of the system. Information modules considered**

|                                |    |                                                          |   |
|--------------------------------|----|----------------------------------------------------------|---|
| Product Stage                  | A1 | Raw materials supply                                     | X |
|                                | A2 | Transport                                                | X |
|                                | A3 | Manufacturing                                            | X |
| Construction                   | A4 | Transport of the product                                 | X |
|                                | A5 | Installation and construction processes                  | X |
| Use                            | B1 | Use                                                      | X |
|                                | B2 | Maintenance                                              | X |
|                                | B3 | Repair                                                   | X |
|                                | B4 | Replacement                                              | X |
|                                | B5 | Refurbishment                                            | X |
|                                | B6 | Use of energy in service                                 | X |
|                                | B7 | Use of water in service                                  | X |
| End of Life                    | C1 | Deconstruction                                           | X |
|                                | C2 | Transport                                                | X |
|                                | C3 | Waste management                                         | X |
|                                | C4 | Waste disposal                                           | X |
|                                | D  | Potential for reuse, recovery and recycling of materials | X |
| X = Module included in the LCA |    |                                                          |   |

This EPD may not be comparable with those developed in other Programmes or according to different reference documents, in particular it may not be comparable with EPDs not developed according to EN 15804+A2.

Similarly, this EPD may not be comparable if the origin of the data is different (e.g. databases), not all relevant information modules are included or they are not based on the same scenarios.

The comparison of construction products should be done on the same function, applying the same functional unit and at the level of the building (or architectural or engineering work), i.e. including the behaviour of the product throughout its life cycle, as well as the specifications of section 6.7.2 of the EN ISO 14025 standard.

## 2. Product information

### 2.1. Product identification

The ceramic tiles included in this study belong to group BIII (earthenware tile), a classification based on standard EN 14411:2016 (equivalent to standard ISO 13006:2018), i.e. they have a water absorption of more than 10% and are formed by pressing. Its common name is earthenware tile.

The earthenware tile included in this study include 43 commercial formats, all of them are glazed and their thicknesses range from 7 mm to 9 mm, with an average weight of 12.9 kg/m<sup>2</sup>.

In the annexes, the results of the formats included in the scope of this EPD with the minimum and maximum environmental impact can be found, corresponding to the formats: 1.2x20 cm of 11.2 kg/m<sup>2</sup> and 7 mm of thick and 12.4x10.7HX, 12x12CUR, 10.6x12FAN, 10.8x12.4BZ, 10.8x12.4TR cm of 14.4 kg/m<sup>2</sup> and 9 thick, fired weight respectively.

The CPC code of the product is 37370.

### 2.2. Product technical features

The manufacturer declares the following information on the technical specifications of the product:

#### Product technical features

| Description                                  | Standard     | Requirements          |
|----------------------------------------------|--------------|-----------------------|
| Dimensional stability and surface appearance | ISO 10545-2  | Yes                   |
| Water absorption                             | ISO 10545-3  | <10%                  |
| Modulus of Rupture                           | ISO 10545-4  | <12 N/mm <sup>2</sup> |
| Breaking Strength                            | ISO 10545-4  | <600 N                |
| Thermal Shock                                | ISO 10545-9  | Yes                   |
| Crazing Resistance                           | ISO 10545-11 | Yes                   |
| Resistance to Chemicals                      | ISO 10545-13 | GLA/GHA/GA            |
| Stain Resistance                             | ISO 10545-14 | 5                     |

This EPD contemplates the covering of residential interior walls as a study scenario, however, the versatility of these ceramic tiles allows their installation in other buildings such as hospitals, schools, offices or shopping centres.

### 2.3. Product composition

The composition declared by the manufacturer is as follows:

#### Product composition

| Substance/Component                                       | Content |
|-----------------------------------------------------------|---------|
| Support (clays, feldspars, sands, etc.)                   | 94%     |
| Decoration raw materials (quartz, clays, feldspars, etc.) | 6%      |

Substances contained in the product that are listed in the "Candidate List of Substances of Very High Concern (SVHC) for authorisation" do not exceed 0.1% by weight of the product.

### 3. LCA information

#### 3.1. Life Cycle Assessment

The LCA has been carried out with the support of the LCA for Experts software (Sphera-GaBi) [7] and with the database version 2024.2 (SP40.0) [8]) (SpheraSolutions). The characterisation factors used are those included in the EN 15804:2012+A2:2019 standard. The LCA is included in Annex I of report C243417 (June 2025, version 1), issued by the Institute of Ceramic Technology.

#### 3.2. Functional unit / declared unit

The functional unit considered is *"Covering 1 m<sup>2</sup> of the interior floor of a dwelling with ceramic tiles of group BIII, 12.9 kg/m<sup>2</sup> and 8.0 mm thick, for 50 years"*.

#### 3.3. Reference service life (RSL)

The reference useful life of the product is the same as that of the building where it is installed, provided it is installed correctly, as it is a long-lasting product that does not require replacement. A useful life of 50 years has been considered.

#### Reference service life

| Parameter                                                                                                  | Unit (expressed per functional unit or per declared unit)                                                                                                      |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reference service life                                                                                     | Minimum 50 years                                                                                                                                               |
| Declared product properties (on gate), coatings, etc.                                                      | Minimum values of the relevant characteristics according to Annex L of the EN 14411.<br>For more information request technical data sheets according to model. |
| Design parameters of the application (manufacturer's instructions), including references to good practices | For more information request technical data sheets according to model.                                                                                         |
| Estimated quality of work, when installed according to the manufacturer's specifications                   | For more information request technical data sheets according to model.                                                                                         |

| Parameter                                                                                                                                                                    | Unit (expressed per functional unit or per declared unit)                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Installed from outside environment (for outdoor applications), e.g. weathering, pollutants, UV radiation and wind exposure, building orientation, shading, temperature, etc. | Results of the values of the relevant characteristics according to Annex L of the EN 14411.<br>For more information request technical data sheets according to model. |
| Indoor environment (for indoor applications), e.g. temperature, humidity, chemical exposure                                                                                  | Results of the values of the relevant characteristics according to Annex L of the EN 14411.<br>For more information request technical data sheets according to model. |
| Conditions of use, e.g.: frequency of use, mechanical exposure, etc.                                                                                                         | For more information request technical data sheets according to model.                                                                                                |
| Maintenance, e.g.: required frequency, type and quality and replacement of replaceable components                                                                            | For more information request technical data sheets according to model.                                                                                                |

#### 3.4. Allocation rules

In accordance with the standards and PCR, the principle of causality has been applied when assigning inputs and outputs in processes with multiple inputs and/or outputs. Therefore, an attempt has been made to establish the physical relationship between the inputs and outputs of the system and its different products.

In the allocation of inputs and outputs to the declared unit, production-weighted averages have been carried out.

### 3.5. Cut-off rule and exclusions

In this cradle-to-grave LCA study, a cut-off rule of 1% for the energy use (renewable and non-renewable) and 1% of total mass in those unitary processes, whose data is insufficient, have been applied. In total, more than 95% of all mass and energy inputs and outputs of the system have been included, excluding the not available nor quantified data.

The excluded data are the following:

- Diffuse particle emissions to the atmosphere
- Atmospheric emissions of pollutants, non-regulated
- Long-term emissions (>100 years)
- The processes of recycling and reuse of waste generated throughout the life cycle of ceramic tiles that are to form part of another system, based on the PCR.
- The production of some auxiliary materials used in the production of tiles representing less than 0.01% by total mass.
- Machinery and industrial equipment production.
- Mortar losses and its packaging at stage A5.

### 3.6. Representativeness, quality and selection of data

The primary data have been provided directly by the company EQUIPE, with a production centre located in Figueroles (Castellón), Spain. For the secondary data, the most updated Sphera-GaBi databases [8] have been used and modelled with the version of LCA for Experts (Sphera-GaBi) [7]. All data belong to a geographical scenario of Spain 2022.

The results presented are representative of ceramic tiles, expressed as an average weighted by the production of the ceramic tilings belonging to the BIII group range, limiting this average by the products with the minimum and maximum environmental impact.

The global warming potential (GWP<sub>total</sub>) of the different technologies that make up the electricity mix used is 0.38 kgCO<sub>2</sub> eq/kWh.

### 3.7. Other calculation rules and assumptions

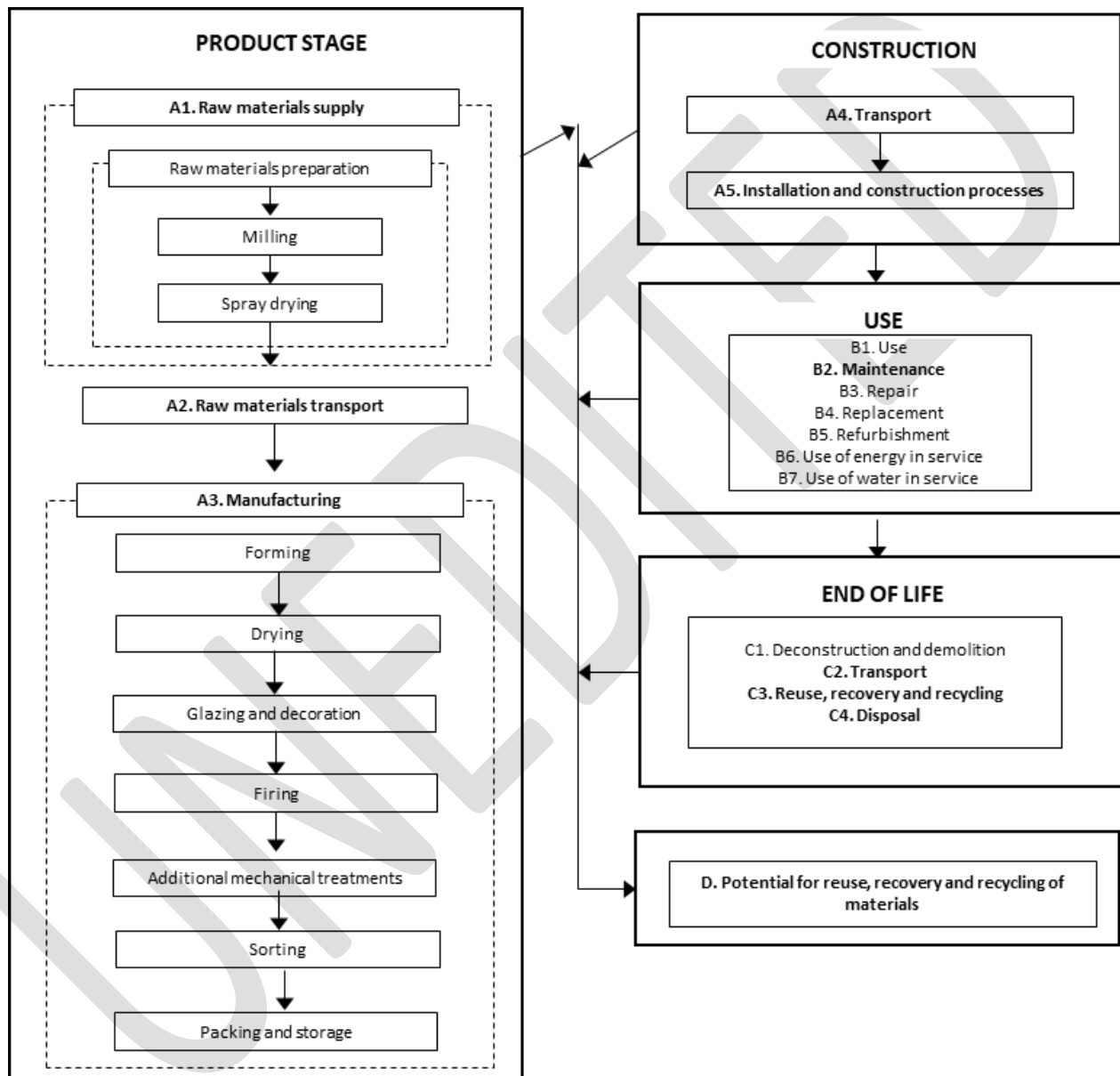
The 43 tile references have different weights and environmental impacts. The following table shows the deviations of the format with the highest and lowest environmental impact with respect to the average, in relation to the product stage (A1-A3). Annex I and Annex II show the environmental impact results of the reference with minimum and maximum impact values respectively.

| Impact Indicator | Relative variation from the average |
|------------------|-------------------------------------|
| GWP-total        | -8%/+12%                            |
| AP               | -5%/+9%                             |
| POCP             | -4%/+10%                            |

## 4. System limits, scenarios and additional technical information.

All life cycle modules relevant to ceramic tiles according to the PCR have been included:

### System diagram



#### 4.1. Pre-manufacturing processes (upstream).

##### Raw materials (A1) and Transport (A2)

Ceramic tiles are composed of a ceramic support and a decorative layer.

The raw materials included in the composition of the support are mainly clays, feldspars, sands and ceramic waste generated during the manufacture.

The raw materials for decoration (glazes, engobes and inks) are produced in specialised plants.

The raw materials used have different origins, according to their nature and properties; they are transported by road or by ship in bulk, depending on the distance and location of the extraction point.

#### 4.2. Manufacturing of the product

##### Manufacturing (A3)

In the spray granule manufacturing plant of EQUIPE's supplier, the raw materials are prepared by wet milling and spray drying with a high-performance cogeneration system.

Once at the EQUIPE plant, this spray-dried granule is forming by unidirectional dry pressing and then fed into a continuous dryer.

The pieces just out of the dryer are covered with a thin layer or several layers of engobe and glazes, and in some cases, they are decorated mainly by digital inks.

Subsequently, the pieces are fired in single-layer roller kilns to produce a hard, water- and chemical-resistant material.

Optionally, the parts are subjected to mechanical surface treatments such as cutting.

After passing the quality control processes, the sorted parts are boxed and packaged.

#### 4.3. Construction process

##### Transport (A4)

The product is distributed 11.8% in Spain, 40.2% in Europe and 48.0% in the rest of the world.

##### Module A4 Transport to site

| Parameter                                                                                                             | Result (expressed per functional unit)                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Type and fuel consumption of the vehicle, type of vehicles used for transport, e.g. long distance trucks, ship, etc.. | According to the destinations in the distribution as described above:<br>0.2 l diesel (Euro truck 6, 27 t)<br>0.02 l fueloil (ship) |
| Distance                                                                                                              | 300 km national distribution: 11.8%<br>1390 km rest of Europe distribution: 40.2%<br>6520 km rest of the world distribution: 48.0%  |
| Capacity utilisation (including no-load return)                                                                       | 85% in truck<br>100% ship                                                                                                           |
| Bulk density of transported products                                                                                  | 812 kg/m <sup>3</sup>                                                                                                               |
| Usable capacity factor (factor: = 1 or < 1 or ≥ 1 for products that are packed compressed or nested)                  | Not applicable                                                                                                                      |

### Product installation and construction process (A5).

Once the product is unpacked, it is installed. According to the PCRs for ceramic tiles, it has been established that the application of mortar is required for installation.

The waste derived from the packaging of the pieces is managed separately according to the geographical location of the installation site. Otherwise, 5% of product losses have been considered at the installation stage.

#### Module A5 - Installation

| Parameter                                                                                                                                                                                      | Result (expressed per functional unit)                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Supplementary materials for installation                                                                                                                                                       | 3.3 kg                                                                                                                                                                                                                                                                                                                                                              |
| Water use                                                                                                                                                                                      | 0.8 l                                                                                                                                                                                                                                                                                                                                                               |
| Use of other resources                                                                                                                                                                         | Not applicable                                                                                                                                                                                                                                                                                                                                                      |
| Quantitative description of the type of energy (regional mix) and consumption during the installation process                                                                                  | Not applicable                                                                                                                                                                                                                                                                                                                                                      |
| Waste of materials at the construction site before processing of waste generated at the product installation (specified by type)                                                               | Product losses: 761 g<br>Packaging wastes:<br>Cardboard: 143 g<br>Plastic: 34 g<br>Wood: 342 g                                                                                                                                                                                                                                                                      |
| Output of materials (specified by type) as a result of waste treatment waste at the construction site, e.g. from waste collected for recycling, energy recovery, disposal (specified by route) | Product losses for recycling: 533 g<br>Product losses for final deposition: 228 g<br>Incinerated cardboard: 1g<br>Recycled cardboard: 143 g<br>Cardboard for final deposition: 0 g<br>Incinerated plastic: 5 g<br>Recycled plastic: 34 g<br>Plastic for final deposition: 5 g<br>Incinerated wood: 129 g<br>Recycled wood: 342 g<br>Wood for final deposition: 10 g |
| Direct emissions to ambient air, soil and water                                                                                                                                                | Not applicable                                                                                                                                                                                                                                                                                                                                                      |

### B1 Use

Once it had been installed, the product needed neither water nor energy input for use and do not emissions into the environment. At this stage, there are no processes that generate environmental impacts. For this reason, only the environmental burdens attributable to the maintenance of the product (module B2) are considered.

### B2 Maintenance

It can be done with a damp cloth and, if the surface is dirty or greasy, cleaning agents such as detergents or bleaches can be used.

#### Use linked to the building structure

| Parameter                                                                                                                                | Result (expressed per functional unit)                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>B2 Maintenance</b>                                                                                                                    |                                                                                           |
| Maintenance process                                                                                                                      | According to RCP for ceramic tiles (EN17160) residential floor and wall cleaning scenario |
| Maintenance cycle                                                                                                                        | Wash once every three months with water and detergent.                                    |
| Auxiliary materials for maintenance (e.g. cleaning products) (specify each material)                                                     | Detergent: 1.34E-04 kg/m <sup>2</sup> per cleaning cycle                                  |
| Material wastage during maintenance (specify type))                                                                                      | Not applicable                                                                            |
| Net tap water consumption                                                                                                                | 0.1 l/m <sup>2</sup> per cleaning cycle                                                   |
| Energy input during maintenance (e.g. vacuum cleaning), type of energy carrier (e.g. electricity) and amount, if applicable and relevant | Not applicable                                                                            |

### B3-B4-B5 Repair, replacement and refurbishment

The tiles do not require repair, replacement or renovation if the tiles are correctly installed.

#### 4.5. Use linked to the operation of the building

### B6-B7 Operational energy use and Operational water use

These modules are not relevant for ceramic tiles.

#### 4.6. End of Life Stage

#### 4.4. Use Stage

## C1 Deconstruction and demolition

At the end of its service life, the product will be removed, either as part of a building renovation or during demolition. In the context of the demolition of a building, the impacts attributable to the removal of the product are negligible.

## C2 Transport

The product waste is transported in a truck to be managed either by deposition in inert landfills or recycling.

## C3 Waste management for reuse, recovery and recycling

Seventy percent of tiles are considered to be recycled and/or reused, as indicated in the PCR.

## C4 Final disposal

It was assumed that 30% of the product was sent to controlled landfills after its service life had ended.

### End of life

| Parameter                                              | Result (expressed per functional unit)                                                                                                                                                                                                                                                              |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Collection process, specified by type                  | 19.2 kg total                                                                                                                                                                                                                                                                                       |
| Recovery system, specified by type                     | 13.5 kg for recycling                                                                                                                                                                                                                                                                               |
| Disposal, specified by type                            | 5.8 kg to landfill                                                                                                                                                                                                                                                                                  |
| Assumptions for scenario development (e.g.: transport) | The product waste is transported in a Euro 6 compliant heavy-duty truck (27 t) to be managed either to landfilling or recycling. An average distance of 50km from the building site to the final destination is considered. The return journey of the lorries is also included (100% empty return). |

## 4.7. Benefits and burdens beyond the system

### Module D

The net environmental burdens and net benefits of obtaining the secondary material from waste at the installation stage and at the end of life of the product have been considered.

## 4.8. Information on biogenic carbon content

Ceramic tiles are mineral products; therefore, they do not contain biogenic carbon and plastic packaging contains carbon from fossil sources. However, other packaging such as cardboard or wooden pallets contain biogenic carbon. In this respect, the information for each product studied is shown below.

| Biogenic carbon content                                | Unit                | Value   |
|--------------------------------------------------------|---------------------|---------|
| Biogenic carbon content in the product (at the door)   | kg C/m <sup>2</sup> | -       |
| Biogenic carbon content in the packaging (at the door) | kg C/m <sup>2</sup> | 2.6E-01 |

## 5. Environmental Information.

### Environmental impacts.

The estimated impact results are relative and do not indicate the final value of the impact categories, nor do they refer to threshold values, safety margins or risks.

| Indicator                         | Unit                  | A1-A3    | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|-----------------------------------|-----------------------|----------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| GWP-fossil                        | kg CO <sub>2</sub> eq | 13.2     | 6.9E-01 | 1.7     | 0  | 3.6E-01 | 0  | 0  | 0  | 0  | 0  | 0  | 9.2E-02 | 1.5E-02 | 8.5E-02 | -1.8E-01 |
| GWP-biogenic                      | kg CO <sub>2</sub> eq | -3.8E-03 | 8.7E-05 | 2.2E-02 | 0  | 7.0E-03 | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 7.8E-06 | 8.8E-04 | -5.4E-06 |
| GWP-luluc                         | kg CO <sub>2</sub> eq | 8.2E-03  | 9.4E-03 | 2.4E-03 | 0  | 2.4E-05 | 0  | 0  | 0  | 0  | 0  | 0  | 1.4E-03 | 2.0E-06 | 3.7E-04 | -3.3E-04 |
| GWP-total                         | kg CO <sub>2</sub> eq | 13.2     | 7.0E-01 | 1.8     | 0  | 3.7E-01 | 0  | 0  | 0  | 0  | 0  | 0  | 9.3E-02 | 1.5E-02 | 8.6E-02 | -1.8E-01 |
| ODP                               | kg CFC11 eq           | 7.2E-09  | 9.0E-14 | 3.6E-10 | 0  | 1.3E-10 | 0  | 0  | 0  | 0  | 0  | 0  | 1.2E-14 | 4.2E-14 | 4.9E-14 | -4.7E-09 |
| AP                                | mol H <sup>+</sup> eq | 1.7E-02  | 3.3E-03 | 3.1E-03 | 0  | 1.2E-03 | 0  | 0  | 0  | 0  | 0  | 0  | 9.8E-05 | 1.5E-05 | 6.3E-04 | -6.9E-04 |
| EP-freshwater                     | kg P eq               | 8.0E-05  | 2.4E-06 | 6.0E-06 | 0  | 9.1E-06 | 0  | 0  | 0  | 0  | 0  | 0  | 3.6E-07 | 1.3E-09 | 1.8E-06 | -1.8E-06 |
| EP-marine                         | kg N eq               | 5.7E-03  | 8.7E-04 | 1.1E-03 | 0  | 2.6E-04 | 0  | 0  | 0  | 0  | 0  | 0  | 3.4E-05 | 4.5E-06 | 1.7E-04 | -2.0E-04 |
| EP-terrestrial                    | mol N eq              | 6.1E-02  | 9.7E-03 | 1.2E-02 | 0  | 2.7E-03 | 0  | 0  | 0  | 0  | 0  | 0  | 4.0E-04 | 4.9E-05 | 1.9E-03 | -2.1E-03 |
| POCP                              | Kg NMVOC eq           | 1.6E-02  | 2.6E-03 | 3.0E-03 | 0  | 7.3E-04 | 0  | 0  | 0  | 0  | 0  | 0  | 1.1E-04 | 1.4E-05 | 5.1E-04 | -5.3E-04 |
| ADP-minerals& metals <sup>2</sup> | kg Sb eq              | 3.3E-05  | 5.1E-08 | 1.7E-06 | 0  | 4.8E-09 | 0  | 0  | 0  | 0  | 0  | 0  | 7.3E-09 | 7.4E-10 | 8.8E-09 | -6.7E-08 |
| ADP-fossil <sup>2</sup>           | MJ                    | 153.7    | 8.4     | 13.8    | 0  | 6.2     | 0  | 0  | 0  | 0  | 0  | 0  | 1.1     | 3.9E-01 | 1.1     | -3.3     |
| WDP <sup>2</sup>                  | m <sup>3</sup>        | 1.8      | 8.8E-03 | 2.0E-01 | 0  | 22.7    | 0  | 0  | 0  | 0  | 0  | 0  | 1.3E-03 | 5.4E-03 | 6.5E-03 | -2.1E-02 |

GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential. Accumulated Exceedance; EP-freshwater = Eutrophication potential. Fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential. Fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential. Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals <sup>2</sup> = Abiotic depletion potential for non-fossil resources; ADP-fossil <sup>2</sup> = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential. deprivation-weighted water consumption

## Additional environmental impacts

| Indicator           | Unit                  | A1-A3   | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|---------------------|-----------------------|---------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| PM                  | Incidence of diseases | 5.7E-07 | 5.6E-08 | 6.7E-08 | 0  | 6.6E-09 | 0  | 0  | 0  | 0  | 0  | 0  | 1.0E-09 | 1.4E-10 | 7.7E-09 | -3.9E-09 |
| IRP <sup>1</sup>    | kBq U235 eq           | 5.1E-01 | 2.1E-03 | 5.8E-02 | 0  | 4.2E-02 | 0  | 0  | 0  | 0  | 0  | 0  | 2.9E-04 | 4.0E-03 | 1.5E-03 | -7.2E-03 |
| ETP-fw <sup>2</sup> | CTUe                  | 41.8    | 6.2     | 5.2     | 0  | 8.5     | 0  | 0  | 0  | 0  | 0  | 0  | 8.2E-01 | 2.0E-02 | 6.9E-01 | -1.1     |
| HTP-c <sup>2</sup>  | CTUh                  | 2.1E-09 | 1.2E-10 | 2.5E-10 | 0  | 5.0E-10 | 0  | 0  | 0  | 0  | 0  | 0  | 1.7E-11 | 1.7E-12 | 8.8E-11 | -1.5E-12 |
| HTP-nc <sup>2</sup> | CTUh                  | 5.7E-08 | 5.1E-09 | 1.3E-08 | 0  | 5.5E-08 | 0  | 0  | 0  | 0  | 0  | 0  | 7.5E-10 | 1.2E-11 | 9.3E-09 | -1.2E-09 |
| SQP <sup>2</sup>    | -                     | 88.3    | 3.6     | 16.4    | 0  | 1.4     | 0  | 0  | 0  | 0  | 0  | 0  | 5.5E-01 | 1.9E-03 | 2.7E-01 | -1.4     |

PM: Potential for disease incidence due to emissions of particulate matter (PM); IRP : Exposure efficiency of human potential relative to U235; ETP-fw : Ecosystem toxic unit comparative potential - freshwater; HTP-c : Ecosystem toxic unit comparative potential - carcinogenic effects; HTP-nc : Ecosystem toxic unit comparative potential - non-carcinogenic effects; SQP : Soil quality potential index; NR: Not relevant

Note 1: This impact category deals mainly with potential impacts of low doses of ionising radiation on human health from the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents or occupational exposure due to disposal of radioactive waste in underground facilities. Ionising radiation potential of soil, due to radon or some building materials is also not measured by this parameter.

Note 2: The results of this environmental impact indicator should be used with caution, as the uncertainties of the results are high and experience with this parameter is limited.

## Use of resources

| Indicator | Unit           | A1-A3   | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|-----------|----------------|---------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| PERE      | MJ             | 37.2    | 6.4E-01 | 2.1     | 0  | 8.4     | 0  | 0  | 0  | 0  | 0  | 0  | 9.6E-02 | 2.1E-02 | 1.3E-01 | -1.3     |
| PERM      | MJ             | 11.2    | 0       | 5.6E-01 | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| PERT      | MJ             | 48.4    | 6.4E-01 | 2.6     | 0  | 8.4     | 0  | 0  | 0  | 0  | 0  | 0  | 9.6E-02 | 2.1E-02 | 1.3E-01 | -1.3     |
| PENRE     | MJ             | 153.7   | 8.4     | 5.7     | 0  | 6.2     | 0  | 0  | 0  | 0  | 0  | 0  | 1.1     | 3.9E-01 | 1.1     | -3.3     |
| PENRM     | MJ             | 1.9     | 0       | 9.4E-02 | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| PENRT     | MJ             | 155.6   | 8.4     | 5.8     | 0  | 6.2     | 0  | 0  | 0  | 0  | 0  | 0  | 1.1     | 3.9E-01 | 1.1     | -3.3     |
| SM        | kg             | 3.2     | 0       | 0       | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| RSF       | MJ             | 0       | 0       | 0       | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| NRSF      | MJ             | 0       | 0       | 0       | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| FW        | m <sup>3</sup> | 3.3E-02 | 7.1E-04 | 4.1E-03 | 0  | 3.1E-01 | 0  | 0  | 0  | 0  | 0  | 0  | 1.1E-04 | 7.0E-05 | 2.2E-04 | -1.9E-03 |

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

## Waste categories

| Indicator | Unit | A1-A3   | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|-----------|------|---------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| HWD       | kg   | 1.0E-03 | 3.2E-10 | 5.0E-05 | 0  | 1.7E-10 | 0  | 0  | 0  | 0  | 0  | 0  | 4.2E-11 | 6.5E-11 | 1.8E-08 | -2.5E-08 |
| NHWD      | kg   | 2.2E-01 | 1.3E-03 | 3.7E-01 | 0  | 7.7E-02 | 0  | 0  | 0  | 0  | 0  | 0  | 1.8E-04 | 4.5E-05 | 5.3     | -7.3E-04 |
| RWD       | kg   | 6.9E-03 | 1.5E-05 | 5.6E-04 | 0  | 1.0E-05 | 0  | 0  | 0  | 0  | 0  | 0  | 2.0E-06 | 6.3E-05 | 1.6E-05 | -7.0E-06 |

HWD: Hazardous waste disposed of; NHWD: Non-hazardous waste disposed of; RWD: Radioactive waste disposed of; NR: Not relevant

## Output flows

| Indicator | Unit | A1-A3 | A4 | A5  | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3   | C4 | D |
|-----------|------|-------|----|-----|----|----|----|----|----|----|----|----|----|------|----|---|
| CRU       | kg   | 0     | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0 |
| MFR       | kg   | 3.7   | 0  | 1.3 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 13.5 | 0  | 0 |
| MER       | kg   | 0     | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0 |
| EE        | MJ   | 0     | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0 |

CRU: Components for reuse; MFR: Materials for recycling; MER: Materials for energy recovery; EE: Energy exported; NR: Not relevant.

## 6. Additional environmental impacts

### Indoor air emissions

Ceramic tiles, in their manufacturing process, are subjected to a thermal process that exceeds 1000°C. At these temperatures, any organic compounds present in the compositions decompose, resulting in a final product that is inert and free of volatile organic compounds that may be emitted during the use phase.

### Release to soil and water

Ceramic tiles do not emit any compounds into the soil or water during the use phase, as it is a totally inert product, which does not undergo physical, chemical or biological transformations, is not soluble or combustible, does not react physically, chemically or in any other way, is not biodegradable, does not adversely affect other materials with which it comes into contact in a way that could lead to environmental pollution or harm human health. It is a non-leaching product and therefore does not pose a risk to surface or groundwater quality.

### Environmental information about the company

In September 2024, EQUIPE CERÁMICAS presented its innovative 100% electric kiln at its facilities in Onda, Castellón. The event was attended by local authorities, industry professionals, and the general public, who were able to witness firsthand this milestone in the ceramic industry. This kiln, the result of an R&D&I project, has been developed in collaboration with the Universitat Jaume I, the Institute of Ceramic Technology (ITC-AICE), SYSTEM FOC, and EQUIPE Cerámicas

As part of the ITALCER GROUP, EQUIPE reaffirms its commitment to sustainability, a fundamental and distinctive pillar of the group.

The project aims at the complete elimination of CO<sub>2</sub> emissions in the ceramic firing phase, without compromising either the technical quality or the sustainability of the manufactured products. This breakthrough represents a decisive first step towards meeting the CO<sub>2</sub> reduction targets of the United Nations 2030 Agenda.

It is worth noting that traditional ceramic kilns, powered by natural gas (the fossil fuel with the lowest environmental impact), consume approximately 60% of the total energy used in the production process during the firing stage. Therefore, decarbonizing this stage is essential to reducing emissions in the sector.

The new electric kiln is powered mainly by renewable energy sources and is more efficient than conventional models, achieving a significant reduction in energy consumption. This innovation is tangible proof of EQUIPE's commitment to a more sustainable and environmentally responsible future.

With this initiative, EQUIPE Cerámicas continues to position itself as a leader in the transition towards a greener and more responsible ceramic production model, in line with the demands of a world increasingly aware of the urgency of climate action.

### ECOVADIS CERTIFICATION

As part of our commitment to society, our people, and the environment, EQUIPE Cerámicas completed this year a comprehensive assessment of its corporate sustainability practices through EcoVadis, a global standard for business sustainability ratings.

The EcoVadis assessment includes 21 sustainability criteria across four key areas:

Environment, Labor & Human Rights, Ethics, and Sustainable Procurement.

In this assessment, we were awarded a Silver Medal, placing EQUIPE Cerámicas in the top 15% worldwide.

#### PHOTOVOLTAIC ENERGY AT EQUIPE (SOLAR PANEL INSTALLATIONS)

EQUIPE has taken a strong step towards decarbonizing its energy supply through the installation of 3,526 photovoltaic panels generating 1.6 MWp of electricity across an area of 7,653 m<sup>2</sup>. This installation supplies 18% of the energy consumption of our plants, reducing 585 tons of CO<sub>2</sub> emissions, equivalent to planting 29,000 trees.

Thanks to the Recovery, Transformation and Resilience Plan, financed by the European Union – NextGenerationEU, and the collaboration of IVACE and IDAE, our company has been able to take this major step towards reducing our carbon footprint and significantly improving our energy efficiency.

#### UNITED NATIONS GLOBAL COMPACT

EQUIPE Cerámicas supports the United Nations international initiative that promotes Sustainable Development and corporate social responsibility, as expressed in our Letter of Commitment, in which we pledge to integrate the 10 Principles of the Global Compact into our corporate objectives

## Annex I. Declaration of the environmental parameters of the LCA and LCI for the format with minimum impacts

### Environmental impacts

The estimated impact results are relative and do not indicate the final value of the impact categories, nor do they refer to threshold values, safety margins or risks.

| Indicator                         | Unit                  | A1-A3    | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|-----------------------------------|-----------------------|----------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| GWP-fossil                        | kg CO <sub>2</sub> eq | 12.1     | 6.1E-01 | 1.7     | 0  | 3.6E-01 | 0  | 0  | 0  | 0  | 0  | 0  | 8.3E-02 | 1.3E-02 | 7.7E-02 | -1.7E-01 |
| GWP-biogenic                      | kg CO <sub>2</sub> eq | -4.0E-03 | 7.6E-05 | 2.2E-02 | 0  | 7.0E-03 | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 7.0E-06 | 7.9E-04 | 6.9E-06  |
| GWP-luluc                         | kg CO <sub>2</sub> eq | 7.7E-03  | 8.2E-03 | 2.3E-03 | 0  | 2.4E-05 | 0  | 0  | 0  | 0  | 0  | 0  | 1.3E-03 | 1.8E-06 | 3.3E-04 | -3.0E-04 |
| GWP-total                         | kg CO <sub>2</sub> eq | 12.1     | 6.2E-01 | 1.7     | 0  | 3.7E-01 | 0  | 0  | 0  | 0  | 0  | 0  | 8.4E-02 | 1.3E-02 | 7.8E-02 | -1.7E-01 |
| ODP                               | kg CFC11 eq           | 7.2E-09  | 7.9E-14 | 3.6E-10 | 0  | 1.3E-10 | 0  | 0  | 0  | 0  | 0  | 0  | 1.1E-14 | 3.8E-14 | 4.4E-14 | -4.7E-09 |
| AP                                | mol H <sup>+</sup> eq | 1.6E-02  | 2.9E-03 | 3.1E-03 | 0  | 1.2E-03 | 0  | 0  | 0  | 0  | 0  | 0  | 8.8E-05 | 1.4E-05 | 5.7E-04 | -6.7E-04 |
| EP-freshwater                     | kg P eq               | 8.0E-05  | 2.1E-06 | 5.9E-06 | 0  | 9.2E-06 | 0  | 0  | 0  | 0  | 0  | 0  | 3.2E-07 | 1.1E-09 | 1.6E-06 | -1.7E-06 |
| EP-marine                         | kg N eq               | 5.4E-03  | 7.6E-04 | 1.1E-03 | 0  | 2.7E-04 | 0  | 0  | 0  | 0  | 0  | 0  | 3.0E-05 | 4.1E-06 | 1.6E-04 | -1.9E-04 |
| EP-terrestrial                    | mol N eq              | 5.8E-02  | 8.5E-03 | 1.1E-02 | 0  | 2.7E-03 | 0  | 0  | 0  | 0  | 0  | 0  | 3.6E-04 | 4.4E-05 | 1.7E-03 | -2.1E-03 |
| POCP                              | Kg NMVOC eq           | 1.5E-02  | 2.3E-03 | 3.0E-03 | 0  | 7.3E-04 | 0  | 0  | 0  | 0  | 0  | 0  | 9.9E-05 | 1.3E-05 | 4.6E-04 | -5.1E-04 |
| ADP-minerals& metals <sup>2</sup> | kg Sb eq              | 3.3E-05  | 4.4E-08 | 1.7E-06 | 0  | 4.8E-09 | 0  | 0  | 0  | 0  | 0  | 0  | 6.6E-09 | 6.7E-10 | 7.9E-09 | -6.1E-08 |
| ADP-fossil <sup>2</sup>           | MJ                    | 141.7    | 7.3     | 13.1    | 0  | 6.2     | 0  | 0  | 0  | 0  | 0  | 0  | 1.0E+00 | 3.5E-01 | 1.0     | -3.2     |
| WDP <sup>2</sup>                  | m <sup>3</sup>        | 1.7      | 7.7E-03 | 2.0E-01 | 0  | 22.8    | 0  | 0  | 0  | 0  | 0  | 0  | 1.2E-03 | 4.8E-03 | 5.9E-03 | -2.7E-02 |

GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential. Accumulated Exceedance; EP-freshwater = Eutrophication potential. Fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential. Fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential. Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential. deprivation-weighted water consumption.

## Additional environmental impacts

| Indicator           | Unit                  | A1-A3   | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|---------------------|-----------------------|---------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| PM                  | Incidence of diseases | 5.6E-07 | 4.9E-08 | 6.7E-08 | 0  | 6.6E-09 | 0  | 0  | 0  | 0  | 0  | 0  | 9.3E-10 | 1.3E-10 | 6.9E-09 | -3.8E-09 |
| IRP <sup>1</sup>    | kBq U235 eq           | 4.9E-01 | 1.8E-03 | 5.7E-02 | 0  | 4.2E-02 | 0  | 0  | 0  | 0  | 0  | 0  | 2.6E-04 | 3.6E-03 | 1.4E-03 | -6.7E-03 |
| ETP-fw <sup>2</sup> | CTUe                  | 41.0    | 5.4     | 5.1     | 0  | 8.6     | 0  | 0  | 0  | 0  | 0  | 0  | 7.4E-01 | 1.8E-02 | 6.2E-01 | -1.0     |
| HTP-c <sup>2</sup>  | CTUh                  | 2.1E-09 | 1.1E-10 | 2.5E-10 | 0  | 5.0E-10 | 0  | 0  | 0  | 0  | 0  | 0  | 1.5E-11 | 1.5E-12 | 7.9E-11 | -1.5E-12 |
| HTP-nc <sup>2</sup> | CTUh                  | 5.7E-08 | 4.5E-09 | 1.3E-08 | 0  | 5.5E-08 | 0  | 0  | 0  | 0  | 0  | 0  | 6.7E-10 | 1.1E-11 | 8.4E-09 | -1.1E-09 |
| SQP <sup>2</sup>    | -                     | 88.5    | 3.2     | 16.4    | 0  | 1.4     | 0  | 0  | 0  | 0  | 0  | 0  | 4.9E-01 | 1.7E-03 | 2.4E-01 | -1.3     |

PM: Potential for disease incidence due to emissions of particulate matter (PM); IRP : Exposure efficiency of human potential relative to U235; ETP-fw : Ecosystem toxic unit comparative potential - freshwater; HTP-c : Ecosystem toxic unit comparative potential - carcinogenic effects; HTP-nc : Ecosystem toxic unit comparative potential - non-carcinogenic effects; SQP : Soil quality potential index; NR: Not relevant

Note 1: This impact category deals mainly with potential impacts of low doses of ionising radiation on human health from the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents or occupational exposure due to disposal of radioactive waste in underground facilities. Ionising radiation potential of soil, due to radon or some building materials is also not measured by this parameter.

Note 2: The results of this environmental impact indicator should be used with caution, as the uncertainties of the results are high and experience with this parameter is limited.

## Use of resources

| Indicator | Unit           | A1-A3   | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|-----------|----------------|---------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| PERE      | MJ             | 37.4    | 5.6E-01 | 2.1     | 0  | 8.5     | 0  | 0  | 0  | 0  | 0  | 0  | 8.6E-02 | 1.9E-02 | 1.2E-01 | -1.3     |
| PERM      | MJ             | 11.2    | 0       | 5.6E-01 | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| PERT      | MJ             | 48.7    | 5.6E-01 | 2.6     | 0  | 8.5     | 0  | 0  | 0  | 0  | 0  | 0  | 8.6E-02 | 1.9E-02 | 1.2E-01 | -1.3     |
| PENRE     | MJ             | 141.7   | 7.3     | 5.7     | 0  | 6.2     | 0  | 0  | 0  | 0  | 0  | 0  | 1.0E    | 3.5E-01 | 1.0     | -3.2     |
| PENRM     | MJ             | 1.9     | 0       | 9.4E-02 | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| PENRT     | MJ             | 143.6   | 7.3     | 5.8     | 0  | 6.2     | 0  | 0  | 0  | 0  | 0  | 0  | 1.0     | 3.5E-01 | 1.0     | -3.2     |
| SM        | kg             | 2.8     | 0       | 0       | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| RSF       | MJ             | 0       | 0       | 0       | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| NRSF      | MJ             | 0       | 0       | 0       | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| FW        | m <sup>3</sup> | 3.2E-02 | 6.2E-04 | 4.0E-03 | 0  | 3.1E-01 | 0  | 0  | 0  | 0  | 0  | 0  | 9.6E-05 | 6.3E-05 | 2.0E-04 | -1.9E-03 |

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water.

## Waste categories

| Indicator | Unit | A1-A3   | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|-----------|------|---------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| HWD       | kg   | 1.0E-03 | 2.8E-10 | 5.0E-05 | 0  | 1.8E-10 | 0  | 0  | 0  | 0  | 0  | 0  | 3.8E-11 | 5.9E-11 | 1.6E-08 | -2.3E-08 |
| NHWD      | kg   | 2.4E-01 | 1.1E-03 | 3.5E-01 | 0  | 7.8E-02 | 0  | 0  | 0  | 0  | 0  | 0  | 1.6E-04 | 4.0E-05 | 4.8     | -6.3E-04 |
| RWD       | kg   | 6.6E-03 | 1.3E-05 | 5.4E-04 | 0  | 1.0E-05 | 0  | 0  | 0  | 0  | 0  | 0  | 1.8E-06 | 5.7E-05 | 1.4E-05 | -7.3E-06 |

HWD: Hazardous waste disposed of; NHWD: Non-hazardous waste disposed of; RWD: Radioactive waste disposed of; NR: Not relevant

## Output flows

| Indicator | Unit | A1-A3 | A4 | A5  | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3   | C4 | D |
|-----------|------|-------|----|-----|----|----|----|----|----|----|----|----|----|------|----|---|
| CRU       | kg   | 0     | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0 |
| MFR       | kg   | 3.7   | 0  | 1.2 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 12.1 | 0  | 0 |
| MER       | kg   | 0     | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0 |
| EE        | MJ   | 0     | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0 |

CRU: Components for reuse; MFR: Materials for recycling; MER: Materials for energy recovery; EE: Energy exported; NR: Not relevant.

## Annex II. Declaration of the environmental parameters of the LCA and LCI for the format with maximum impacts

### Environmental impacts

The estimated impact results are relative and do not indicate the final value of the impact categories, nor do they refer to threshold values, safety margins or risks.

| Indicator                         | Unit                  | A1-A3    | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|-----------------------------------|-----------------------|----------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| GWP-fossil                        | kg CO <sub>2</sub> eq | 15.0     | 7.8E-01 | 1.8     | 0  | 3.6E-01 | 0  | 0  | 0  | 0  | 0  | 0  | 1.0E-01 | 1.6E-02 | 9.3E-02 | -1.9E-01 |
| GWP-biogenic                      | kg CO <sub>2</sub> eq | -9.8E-04 | 9.7E-05 | 2.2E-02 | 0  | 7.0E-03 | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 8.5E-06 | 9.6E-04 | -1.7E-05 |
| GWP-luluc                         | kg CO <sub>2</sub> eq | 9.1E-03  | 1.1E-02 | 2.5E-03 | 0  | 2.4E-05 | 0  | 0  | 0  | 0  | 0  | 0  | 1.5E-03 | 2.2E-06 | 4.1E-04 | -3.7E-04 |
| GWP-total                         | kg CO <sub>2</sub> eq | 15.0     | 7.9E-01 | 1.9     | 0  | 3.6E-01 | 0  | 0  | 0  | 0  | 0  | 0  | 1.0E-01 | 1.6E-02 | 9.4E-02 | -1.9E-01 |
| ODP                               | kg CFC11 eq           | 7.2E-09  | 1.0E-13 | 3.6E-10 | 0  | 1.3E-10 | 0  | 0  | 0  | 0  | 0  | 0  | 1.4E-14 | 4.6E-14 | 5.4E-14 | -4.7E-09 |
| AP                                | mol H <sup>+</sup> eq | 1.9E-02  | 3.7E-03 | 3.2E-03 | 0  | 1.2E-03 | 0  | 0  | 0  | 0  | 0  | 0  | 1.1E-04 | 1.7E-05 | 6.9E-04 | -7.0E-04 |
| EP-freshwater                     | kg P eq               | 8.1E-05  | 2.7E-06 | 6.0E-06 | 0  | 9.1E-06 | 0  | 0  | 0  | 0  | 0  | 0  | 3.9E-07 | 1.4E-09 | 2.0E-06 | -1.8E-06 |
| EP-marine                         | kg N eq               | 6.3E-03  | 9.8E-04 | 1.1E-03 | 0  | 2.6E-04 | 0  | 0  | 0  | 0  | 0  | 0  | 3.7E-05 | 4.9E-06 | 1.9E-04 | -2.1E-04 |
| EP-terrestrial                    | mol N eq              | 6.8E-02  | 1.1E-02 | 1.2E-02 | 0  | 2.7E-03 | 0  | 0  | 0  | 0  | 0  | 0  | 4.4E-04 | 5.3E-05 | 2.0E-03 | -2.2E-03 |
| POCP                              | Kg NMVOC eq           | 1.8E-02  | 2.9E-03 | 3.1E-03 | 0  | 7.3E-04 | 0  | 0  | 0  | 0  | 0  | 0  | 1.2E-04 | 1.5E-05 | 5.6E-04 | -5.5E-04 |
| ADP-minerals& metals <sup>2</sup> | kg Sb eq              | 3.3E-05  | 5.7E-08 | 1.7E-06 | 0  | 4.8E-09 | 0  | 0  | 0  | 0  | 0  | 0  | 8.0E-09 | 8.1E-10 | 9.6E-09 | -7.2E-08 |
| ADP-fossil <sup>2</sup>           | MJ                    | 171.6    | 9.4     | 14.8    | 0  | 6.2     | 0  | 0  | 0  | 0  | 0  | 0  | 1.2     | 4.2E-01 | 1.2     | -3.4     |
| WDP <sup>2</sup>                  | m <sup>3</sup>        | 1.9      | 9.9E-03 | 2.1E-01 | 0  | 22.6    | 0  | 0  | 0  | 0  | 0  | 0  | 1.4E-03 | 5.9E-03 | 7.2E-03 | -1.6E-02 |

GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential. Accumulated Exceedance; EP-freshwater = Eutrophication potential. Fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential. Fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential. Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential. deprivation-weighted water consumption.

### Additional environmental impacts

| Indicator           | Unit                  | A1-A3   | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|---------------------|-----------------------|---------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| PM                  | Incidence of diseases | 5.8E-07 | 6.2E-08 | 6.8E-08 | 0  | 6.6E-09 | 0  | 0  | 0  | 0  | 0  | 0  | 1.1E-09 | 1.5E-10 | 8.4E-09 | -4.0E-09 |
| IRP <sup>1</sup>    | kBq U235 eq           | 5.5E-01 | 2.4E-03 | 6.0E-02 | 0  | 4.2E-02 | 0  | 0  | 0  | 0  | 0  | 0  | 3.2E-04 | 4.4E-03 | 1.7E-03 | -7.7E-03 |
| ETP-fw <sup>2</sup> | CTUe                  | 44.7    | 6.9     | 5.4     | 0  | 8.5     | 0  | 0  | 0  | 0  | 0  | 0  | 9.0E-01 | 2.2E-02 | 7.5E-01 | -1.2E+00 |
| HTP-c <sup>2</sup>  | CTUh                  | 2.3E-09 | 1.4E-10 | 2.6E-10 | 0  | 5.0E-10 | 0  | 0  | 0  | 0  | 0  | 0  | 1.8E-11 | 1.9E-12 | 9.6E-11 | -1.6E-12 |
| HTP-nc <sup>2</sup> | CTUh                  | 6.0E-08 | 5.8E-09 | 1.4E-08 | 0  | 5.4E-08 | 0  | 0  | 0  | 0  | 0  | 0  | 8.2E-10 | 1.3E-11 | 1.0E-08 | -1.2E-09 |
| SQP <sup>2</sup>    | -                     | 90.3    | 4.1     | 16.5    | 0  | 1.4     | 0  | 0  | 0  | 0  | 0  | 0  | 6.0E-01 | 2.0E-03 | 2.9E-01 | -1.4     |

PM: Potential for disease incidence due to emissions of particulate matter (PM); IRP : Exposure efficiency of human potential relative to U235; ETP-fw : Ecosystem toxic unit comparative potential - freshwater; HTP-c : Ecosystem toxic unit comparative potential - carcinogenic effects; HTP-nc : Ecosystem toxic unit comparative potential - non-carcinogenic effects; SQP : Soil quality potential index; NR: Not relevant

Note 1: This impact category deals mainly with potential impacts of low doses of ionising radiation on human health from the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents or occupational exposure due to disposal of radioactive waste in underground facilities. Ionising radiation potential of soil, due to radon or some building materials is also not measured by this parameter.

Note 2: The results of this environmental impact indicator should be used with caution, as the uncertainties of the results are high and experience with this parameter is limited.

## Use of resources

| Indicator | Unit           | A1-A3   | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|-----------|----------------|---------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| PERE      | MJ             | 40.4    | 7.2E-01 | 2.1     | 0  | 8.4     | 0  | 0  | 0  | 0  | 0  | 0  | 1.0E-01 | 2.3E-02 | 1.5E-01 | -1.3     |
| PERM      | MJ             | 11.2    | 0       | 5.6E-01 | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| PERT      | MJ             | 51.6    | 7.2E-01 | 2.6     | 0  | 8.4     | 0  | 0  | 0  | 0  | 0  | 0  | 1.0E-01 | 2.3E-02 | 1.5E-01 | -1.3     |
| PENRE     | MJ             | 171.6   | 9.4     | 5.7     | 0  | 6.2     | 0  | 0  | 0  | 0  | 0  | 0  | 1.2     | 4.2E-01 | 1.2     | -3.4     |
| PENRM     | MJ             | 1.9     | 0       | 9.4E-02 | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| PENRT     | MJ             | 173.5   | 9.4     | 5.8     | 0  | 6.2     | 0  | 0  | 0  | 0  | 0  | 0  | 1.2     | 4.2E-01 | 1.2     | -3.4     |
| SM        | kg             | 3.6     | 0       | 0       | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| RSF       | MJ             | 0       | 0       | 0       | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| NRSF      | MJ             | 0       | 0       | 0       | 0  | 0       | 0  | 0  | 0  | 0  | 0  | 0  | 0       | 0       | 0       | 0        |
| FW        | m <sup>3</sup> | 3.5E-02 | 8.0E-04 | 4.2E-03 | 0  | 3.1E-01 | 0  | 0  | 0  | 0  | 0  | 0  | 1.2E-04 | 7.7E-05 | 2.4E-04 | -1.9E-03 |

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water.

## Waste categories

| Indicator | Unit | A1-A3   | A4      | A5      | B1 | B2      | B3 | B4 | B5 | B6 | B7 | C1 | C2      | C3      | C4      | D        |
|-----------|------|---------|---------|---------|----|---------|----|----|----|----|----|----|---------|---------|---------|----------|
| HWD       | kg   | 1.0E-03 | 3.5E-10 | 5.0E-05 | 0  | 1.7E-10 | 0  | 0  | 0  | 0  | 0  | 0  | 4.6E-11 | 7.1E-11 | 2.0E-08 | -2.8E-08 |
| NHWD      | kg   | 2.7E-01 | 1.4E-03 | 4.0E-01 | 0  | 7.7E-02 | 0  | 0  | 0  | 0  | 0  | 0  | 2.0E-04 | 4.9E-05 | 5.8     | -8.3E-04 |
| RWD       | kg   | 7.5E-03 | 1.6E-05 | 5.8E-04 | 0  | 1.0E-05 | 0  | 0  | 0  | 0  | 0  | 0  | 2.2E-06 | 6.9E-05 | 1.7E-05 | -6.7E-06 |

HWD: Hazardous waste disposed of; NHWD: Non-hazardous waste disposed of; RWD: Radioactive waste disposed of; NR: Not relevant

## Output flows

| Indicator | Unit | A1-A3 | A4 | A5  | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3   | C4 | D |
|-----------|------|-------|----|-----|----|----|----|----|----|----|----|----|----|------|----|---|
| CRU       | kg   | 0     | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0 |
| MFR       | kg   | 3.7   | 0  | 1.4 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 14.7 | 0  | 0 |
| MER       | kg   | 0     | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0 |
| EE        | MJ   | 0     | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0 |

CRU: Components for reuse; MFR: Materials for recycling; MER: Materials for energy recovery; EE: Energy exported; NR: Not relevant.

## References

[1] General Rules of the GlobalEPD Programme, 3rd revision. AENOR. June 2023.

[2] EN ISO 14025:2006 Environmental labels. Type III environmental declarations. Principles and procedures (ISO 14025:2006).

[3] EN 15804:2012+A2:2019 Sustainability in construction. Environmental product declarations. Basic product category rules for construction products.

[4] ISO 14040:2006. Environmental Management. Life Cycle Assessment. Principles and framework.

[5] ISO 14044:2006. Environmental Management. Life Cycle Assessment. Requirements and guidelines.

[6] EN 17160:2019 Product Category Rules for ceramic tiles.

[7] LCA for experts (Sphera-GaBi) v 10 software-system. SpheraSolutions. Compilation 10.9.0.31. Further information: <https://sphera.com/life-cycle-assessment-lca-software/>

[8] Managed LCA Content (Sphera databases). SpheraSolutions Upgrade 2024.2 Edition. January 2024. Further information: <https://sphera.com/life-cycle-assessment-lca-database/>

[9] Life Cycle Assessment Report – EQUIPE. Annex I of report C243417; June 2025, issued by the Institute of Ceramic Technology.

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# AENOR



Una declaración ambiental verificada

# GlobalEPD

HPD UNIQUE IDENTIFIER: 2718535814144  
CLASSIFICATION: 09 30 13 Ceramic Tiling  
PRODUCT DESCRIPTION: Bill and BIA ceramic tiles

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

|                                               |                                            |                                                               |                                                                                    |
|-----------------------------------------------|--------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>Inventory Reporting Format</b>             | <b>Threshold Level</b>                     | <b>Residuals/Impurities Evaluation</b>                        | <i>For all contents above the threshold, the manufacturer has:</i>                 |
| <input type="radio"/> Nested Materials Method | <input type="radio"/> 100 ppm              | <input checked="" type="radio"/> Completed                    | <b>Characterized</b> <input checked="" type="radio"/> Yes <input type="radio"/> No |
| <input checked="" type="radio"/> Basic Method | <input checked="" type="radio"/> 1,000 ppm | <input type="radio"/> Partially Completed                     | <i>Provided weight and role.</i>                                                   |
| <b>Threshold Disclosed Per</b>                | <input type="radio"/> Per GHS SDS          | <input type="radio"/> Not Completed                           | <b>Screened</b> <input checked="" type="radio"/> Yes <input type="radio"/> No      |
| <input type="radio"/> Material                | <input type="radio"/> Other                | <b>Explanation(s) provided :</b>                              | <i>Provided screening results using HPDC-approved methods.</i>                     |
| <input checked="" type="radio"/> Product      |                                            | <input checked="" type="radio"/> Yes <input type="radio"/> No | <b>Identified</b> <input checked="" type="radio"/> Yes <input type="radio"/> No    |
|                                               |                                            |                                                               | <i>Provided name and CAS RN or other identifier.</i>                               |

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

PRODUCT | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY  
GREENSCREEN SCORE | HAZARD TYPE

Bill and BIA tiles | NATURALLY OCCURRING SUBSTANCES NoGS  
FELDSPAR LT-UNK | MAM QUARTZ BM-1 \* | CAN | MAM | GEN  
LIMESTONE BM-3dg CHROMIUM IRON OXIDE LT-P1 | SKI C.I.  
PIGMENT GREEN 26 LT-1 | CAN | RES | GEN | REP | AQU | MAM | SKI  
FRITS, CHEMICALS (UNLEADED) LT-P1 | MUL FRITS, CHEMICALS LT-  
P1 | MUL C.I. PIGMENT BLACK 27 LT-1 | CAN | RES | GEN CI 77346  
LT-1 | CAN | RES | GEN KAOLIN LT-UNK | CAN ZIRCON (ZR(SiO4))  
BM-2 PHOSPHONIC ACID, P,P'-(1-HYDROXYETHYLIDENE)BIS-,  
SODIUM SALT (1:?) LT-UNK | EYE ALUMINUM OXIDE BM-2 | MAM  
COPPER(II) OXIDE LT-P1 | MUL | AQU | MAM | EYE MANGANOUS  
CARBONATE LT-P1 | MUL | REP | MAM ZINC OXIDE BM-1 | END | MUL  
| AQU | MAM | REP |

Number of Greenscreen BM-4/BM3 contents ... 1  
Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ...  
LT-P1, LT-1, BM-1  
Nanomaterial ... No  
INVENTORY AND SCREENING NOTES:

The ceramic tile inventory has been divided into two parts, ceramic body (92%) and glaze (8%). It should be noted that the glaze inventory was carried out on the basis of the safety data sheets provided by the suppliers, due to the confidentiality issues.

\*Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. For this reason, this score is intentionally omitted from the "Contents highest concern" line above. See HPDC's Special Conditions policy for more information.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT  
VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.  
VOC emissions: Inherently non-emitting source per LEED  
Environmental Product Declaration: EPD  
Environmental Product Declaration: EPD

CONSISTENCY WITH OTHER PROGRAMS  
Pre-checked for LEED v4 Option 1.  
Pre-checked for LEED v4.1 Option 1.

|                                     |                         |                            |
|-------------------------------------|-------------------------|----------------------------|
| Third Party Verified?               | PREPARER: Self-Prepared | SCREENING DATE: 2024-07-01 |
| <input type="radio"/> Yes           | VERIFIER:               | PUBLISHED DATE: 2024-07-12 |
| <input checked="" type="radio"/> No | VERIFICATION #:         | EXPIRY DATE: 2027-07-01    |

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.3, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-3-standard](http://www.hpd-collaborative.org/hpd-2-3-standard)

BIII AND BIA TILES

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| PRODUCT THRESHOLD: 1000 ppm                                                                                                                                                                                                                                                                                                                                                                                                                                               | RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes |
| RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered based on supplier SDS. SDS may not identify all Residuals or Impurities present in this Product, that would require reporting on the HPD                                                                                                                                                                                                                                                         |                                                    |
| OTHER PRODUCT NOTES: Substance ranges are indicated due to varying product thickness, different decoration options and varying composition of natural materials.                                                                                                                                                                                                                                                                                                          |                                                    |
| The product does not incorporate any nanomaterial, taking into account its definition as "Substance intentionally engineered to achieve size-dependent properties and functions with one or more external dimensions or and internal structure measuring less than 100 nanoemeters". This information has been obtained from components safety data sheets, where it is mandatory to add this information if necessary, according to Commission Regulation (EU) 2020/878. |                                                    |

| NATURALLY OCCURRING SUBSTANCES                                                                                                              |  |                                                |                                                  | ID: 999999-99-4 |                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------|--------------------------------------------------|-----------------|-------------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>                                                                            |  |                                                | HAZARD SCREENING DATE: <b>2024-07-01 3:34:50</b> |                 |                                     |
| *: <b>35.0000 - 55.0000</b>                                                                                                                 |  | GreenScreen: <b>NoGS</b>                       | RC: <b>PreC</b>                                  | NANO: <b>No</b> | SUBSTANCE ROLE: <b>Ceramic body</b> |
| HAZARD TYPE                                                                                                                                 |  | LIST NAME AND SOURCE                           |                                                  | WARNINGS        |                                     |
| None found                                                                                                                                  |  | No warnings found on HPD Priority Hazard Lists |                                                  |                 |                                     |
| ADDITIONAL LISTINGS                                                                                                                         |  | LIST NAME AND SOURCE                           |                                                  | NOTIFICATION    |                                     |
| None found                                                                                                                                  |  | No listings found on Additional Hazard Lists   |                                                  |                 |                                     |
| SUBSTANCE NOTES: *Wide range is given due to the variable composition of natural materials.                                                 |  |                                                |                                                  |                 |                                     |
| **The recycled content of spray dried granule (including solid and liquid) is 52%, which means an average reduction in material use of 29%. |  |                                                |                                                  |                 |                                     |
| ***According to reviewed literature studies, it can contain up to 50% quartz, which is not included in the entry for "quartz".              |  |                                                |                                                  |                 |                                     |

|                                                           |                      |                                                               |          |                              |
|-----------------------------------------------------------|----------------------|---------------------------------------------------------------|----------|------------------------------|
| FELDSPAR                                                  |                      |                                                               |          | ID: 68476-25-5               |
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                      | HAZARD SCREENING DATE: 2024-07-01 3:34:50                     |          |                              |
| %: 35.0000 - 50.0000                                      | GreenScreen: LT-UNK  | RC: PreC                                                      | NANO: No | SUBSTANCE ROLE: Ceramic body |
| HAZARD TYPE                                               | LIST NAME AND SOURCE | WARNINGS                                                      |          |                              |
| MAM                                                       | GHS - New Zealand    | Specific target organ toxicity - repeated exposure category 1 |          |                              |
| ADDITIONAL LISTINGS                                       | LIST NAME AND SOURCE | NOTIFICATION                                                  |          |                              |
| None found                                                |                      | No listings found on Additional Hazard Lists                  |          |                              |

SUBSTANCE NOTES: \*A wide range is given due to the variable composition of natural materials.  
\*\*The recycled content of spray dried granule (including solid and liquid) is 52%, which means an average reduction in material use of 29%.  
\*\*\*According to reviewed literature studies, it can contain up to 15% quartz, which is not included in the entry for "quartz".

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2024-07-01 3:34:50

|                     |                                   |                                                                                                                                                             |          |                              |
|---------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------|
| %: 0.0000 - 10.0000 | GreenScreen: BM-1                 | RC: PreC                                                                                                                                                    | NANO: No | SUBSTANCE ROLE: Ceramic body |
| HAZARD TYPE         | LIST NAME AND SOURCE              | WARNINGS                                                                                                                                                    |          |                              |
| CAN                 | US CDC - Occupational Carcinogens | Occupational Carcinogen**                                                                                                                                   |          |                              |
| CAN                 | CA EPA - Prop 65                  | Carcinogen - specific to chemical form or exposure route**                                                                                                  |          |                              |
| CAN                 | US NIH - Report on Carcinogens    | Known to be Human Carcinogen (respirable size - occupational setting)**                                                                                     |          |                              |
| CAN                 | MAK                               | Carcinogen Group 1 - Substances that cause cancer in man**                                                                                                  |          |                              |
| CAN                 | IARC                              | Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources**                                                                             |          |                              |
| CAN                 | IARC                              | Group 1 - Agent is Carcinogenic to humans**                                                                                                                 |          |                              |
| CAN                 | US NIH - Report on Carcinogens    | Known to be a human Carcinogen**                                                                                                                            |          |                              |
| CAN                 | GHS - Japan                       | H350 - May cause cancer [Carcinogenicity - Category 1A]**                                                                                                   |          |                              |
| CAN                 | GHS - Australia                   | H350i - May cause cancer by inhalation [Carcinogenicity - Category 1A or 1B]**                                                                              |          |                              |
| CAN                 | GHS - New Zealand                 | Carcinogenicity category 1**                                                                                                                                |          |                              |
| MAM                 | GHS - Japan                       | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]** |          |                              |
| GEN                 | GHS - Japan                       | H341 - Suspected of causing genetic defects [Germ cell mutagenicity - Category 2]**                                                                         |          |                              |
| MAM                 | GHS - Australia                   | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]**                   |          |                              |
| MAM                 | GHS - New Zealand                 | Specific target organ toxicity - repeated exposure category 1**                                                                                             |          |                              |
| ADDITIONAL LISTINGS | LIST NAME AND SOURCE              | NOTIFICATION                                                                                                                                                |          |                              |
| None found          |                                   | No listings found on Additional Hazard Lists                                                                                                                |          |                              |

SUBSTANCE NOTES: \*Wide range is given due to the variable composition of natural materials.

\*\*The recycled content of spray dried granule (including solid and liquid) is 52%, which means an average reduction in material use of 29%.

\*\*\*Only quartz intentionally included in the form of sand, is declared in this entry. Other substances of the composition may include quartz intrinsically, such as clays, feldspars and kaolin.

\*\*Form-Specific Hazard: This substance's GreenScreen Benchmark or List Translator score and the applicable hazards are related to particulate inhalation, which is expected to occur only during manufacture, installation, maintenance, or demolition, due to activities such as sawing, sanding, grinding, or intensive cleaning. See HPDC's Special Conditions policy for more information. Manufacturer's Safety Data Sheet (SDS), if applicable, may offer occupational health and safety information.

LIMESTONE

ID: 1317-65-3

|                                                           |                      |                                                |                                           |                              |
|-----------------------------------------------------------|----------------------|------------------------------------------------|-------------------------------------------|------------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                      |                                                | HAZARD SCREENING DATE: 2024-07-01 3:34:50 |                              |
| %: 0.0000 - 10.0000                                       | GreenScreen: BM-3dg  | RC: PreC                                       | NANO: No                                  | SUBSTANCE ROLE: Ceramic body |
| HAZARD TYPE                                               | LIST NAME AND SOURCE | WARNINGS                                       |                                           |                              |
| None found                                                |                      | No warnings found on HPD Priority Hazard Lists |                                           |                              |
| ADDITIONAL LISTINGS                                       | LIST NAME AND SOURCE | NOTIFICATION                                   |                                           |                              |
| None found                                                |                      | No listings found on Additional Hazard Lists   |                                           |                              |

SUBSTANCE NOTES: \*A wide range is given due to the variable composition of natural materials. Also due to the variety of products covered by this HPD.

\*\*The recycled content of spray dried granule (including solid and liquid) is 52%, which means an average reduction in material use of 29%.

CHROMIUM IRON OXIDE

ID: 12737-27-8

|                                                           |                      |                                                         |                                           |                       |
|-----------------------------------------------------------|----------------------|---------------------------------------------------------|-------------------------------------------|-----------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                      |                                                         | HAZARD SCREENING DATE: 2024-07-01 3:34:51 |                       |
| %: 0.0000 - 8.0000                                        | GreenScreen: LT-P1   | RC: None                                                | NANO: No                                  | SUBSTANCE ROLE: Glaze |
| HAZARD TYPE                                               | LIST NAME AND SOURCE | WARNINGS                                                |                                           |                       |
| SKI                                                       | MAK                  | Sensitizing Substance Sh - Danger of skin sensitization |                                           |                       |

| ADDITIONAL LISTINGS                                                                                    | LIST NAME AND SOURCE                                    | NOTIFICATION                                                                                  |
|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| RESTRICTED LIST                                                                                        | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 |
|                                                                                                        |                                                         | Biological and Environmentally Released Materials                                             |
| RESTRICTED LIST                                                                                        | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 |
|                                                                                                        |                                                         | Children's Products                                                                           |
| SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD |                                                         |                                                                                               |

C.I. PIGMENT GREEN 26

ID: 68187-49-5

| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                                           |                                                                                                                                         | HAZARD SCREENING DATE: <b>2024-07-01 3:34:51</b> |                                |
|------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------|
| %: <b>0.0000 - 8.0000</b>                                        | GreenScreen: <b>LT-1</b>                  | RC: <b>None</b>                                                                                                                         | NANO: <b>No</b>                                  | SUBSTANCE ROLE: <b>Pigment</b> |
| HAZARD TYPE                                                      | LIST NAME AND SOURCE                      | WARNINGS                                                                                                                                |                                                  |                                |
| CAN                                                              | MAK                                       | Carcinogen Group 2 - Considered to be carcinogenic for man                                                                              |                                                  |                                |
| RES                                                              | MAK                                       | Sensitizing Substance Sah - Danger of airway & skin sensitization                                                                       |                                                  |                                |
| GEN                                                              | MAK                                       | Germ Cell Mutagen 3a                                                                                                                    |                                                  |                                |
| REP                                                              | GHS - Australia                           | H360F - May damage fertility [Reproductive toxicity - Category 1A or 1B]                                                                |                                                  |                                |
| AQU                                                              | EU - GHS (H-Statements) Annex 6 Table 3-1 | H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]                    |                                                  |                                |
| MAM                                                              | GHS - Australia                           | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1] |                                                  |                                |
| SKI                                                              | GHS - Korea                               | H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1]                                                 |                                                  |                                |
| AQU                                                              | GHS - Korea                               | H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]                    |                                                  |                                |
| MAM                                                              | GHS - Australia                           | H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2]                                                                 |                                                  |                                |

| ADDITIONAL LISTINGS | LIST NAME AND SOURCE                                    | NOTIFICATION                                                                                  |
|---------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| RESTRICTED LIST     | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 |
|                     |                                                         | Biological and Environmentally Released Materials                                             |
| RESTRICTED LIST     | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 |
|                     |                                                         | Children's Products                                                                           |
| RESTRICTED LIST     | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 |
|                     |                                                         | Cosmetics & Personal Care Products                                                            |

SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD

FRITS, CHEMICALS (UNLEADED)

ID: 65997-18-4

| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                                             |                                              | HAZARD SCREENING DATE: <b>2024-07-01 3:34:51</b> |                              |
|------------------------------------------------------------------|---------------------------------------------|----------------------------------------------|--------------------------------------------------|------------------------------|
| %: <b>0.0000 - 8.0000</b>                                        | GreenScreen: <b>LT-P1</b>                   | RC: <b>None</b>                              | NANO: <b>No</b>                                  | SUBSTANCE ROLE: <b>Glaze</b> |
| HAZARD TYPE                                                      | LIST NAME AND SOURCE                        | WARNINGS                                     |                                                  |                              |
| MUL                                                              | German FEA - Substances Hazardous to Waters | Class 3 - Severe Hazard to Waters            |                                                  |                              |
| ADDITIONAL LISTINGS                                              | LIST NAME AND SOURCE                        | NOTIFICATION                                 |                                                  |                              |
| None found                                                       |                                             | No listings found on Additional Hazard Lists |                                                  |                              |

SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD

FRITS, CHEMICALS

ID: 65997-18-4

| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                                             |                                              | HAZARD SCREENING DATE: <b>2024-07-01 3:34:51</b> |                              |
|------------------------------------------------------------------|---------------------------------------------|----------------------------------------------|--------------------------------------------------|------------------------------|
| %: <b>0.0000 - 4.0000</b>                                        | GreenScreen: <b>LT-P1</b>                   | RC: <b>None</b>                              | NANO: <b>No</b>                                  | SUBSTANCE ROLE: <b>Glaze</b> |
| HAZARD TYPE                                                      | LIST NAME AND SOURCE                        | WARNINGS                                     |                                                  |                              |
| MUL                                                              | German FEA - Substances Hazardous to Waters | Class 3 - Severe Hazard to Waters            |                                                  |                              |
| ADDITIONAL LISTINGS                                              | LIST NAME AND SOURCE                        | NOTIFICATION                                 |                                                  |                              |
| None found                                                       |                                             | No listings found on Additional Hazard Lists |                                                  |                              |

SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD

|                                                                                                        |                                                        |                                                                                               |                                            |                         |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------|
| HAZARD DATA SOURCE:  Pharos Chemical and Materials Library                                             |                                                        |                                                                                               | HAZARD SCREENING DATE:  2024-07-01 3:34:51 |                         |
| %: 0.0000 - 4.0000                                                                                     | GreenScreen: LT-1                                      | RC: None                                                                                      | NANO: No                                   | SUBSTANCE ROLE: Pigment |
| HAZARD TYPE                                                                                            | LIST NAME AND SOURCE                                   | WARNINGS                                                                                      |                                            |                         |
| CAN                                                                                                    | MAK                                                    | Carcinogen Group 2 - Considered to be carcinogenic for man                                    |                                            |                         |
| RES                                                                                                    | MAK                                                    | Sensitizing Substance Sah - Danger of airway & skin sensitization                             |                                            |                         |
| GEN                                                                                                    | MAK                                                    | Germ Cell Mutagen 3a                                                                          |                                            |                         |
| ADDITIONAL LISTINGS                                                                                    | LIST NAME AND SOURCE                                   | NOTIFICATION                                                                                  |                                            |                         |
| RESTRICTED LIST                                                                                        | Cradle to Cradle Products Innovation Institute (C2CPH) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 |                                            |                         |
|                                                                                                        |                                                        | Biological and Environmentally Released Materials                                             |                                            |                         |
| RESTRICTED LIST                                                                                        | Cradle to Cradle Products Innovation Institute (C2CPH) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 |                                            |                         |
|                                                                                                        |                                                        | Children's Products                                                                           |                                            |                         |
| SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD |                                                        |                                                                                               |                                            |                         |

|                                                           |                                                        |                                                                                               |                                           |                         |
|-----------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                                                        |                                                                                               | HAZARD SCREENING DATE: 2024-07-01 3:34:52 |                         |
| %: 0.0000 - 2.0000                                        | GreenScreen: LT-1                                      | RC: None                                                                                      | NANO: No                                  | SUBSTANCE ROLE: Pigment |
| HAZARD TYPE                                               | LIST NAME AND SOURCE                                   | WARNINGS                                                                                      |                                           |                         |
| CAN                                                       | MAK                                                    | Carcinogen Group 2 - Considered to be carcinogenic for man                                    |                                           |                         |
| RES                                                       | MAK                                                    | Sensitizing Substance Sah - Danger of airway & skin sensitization                             |                                           |                         |
| GEN                                                       | MAK                                                    | Germ Cell Mutagen 3a                                                                          |                                           |                         |
| ADDITIONAL LISTINGS                                       | LIST NAME AND SOURCE                                   | NOTIFICATION                                                                                  |                                           |                         |
| RESTRICTED LIST                                           | Cradle to Cradle Products Innovation Institute (C2CPH) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 |                                           |                         |
|                                                           |                                                        | Biological and Environmentally Released Materials                                             |                                           |                         |
| RESTRICTED LIST                                           | Cradle to Cradle Products Innovation Institute (C2CPH) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 |                                           |                         |
|                                                           |                                                        | Children's Products                                                                           |                                           |                         |

SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD

KAOLIN

ID: 1332-58-7

|                                                                                                                               |                            |                 |                                                                                              |                              |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------|----------------------------------------------------------------------------------------------|------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>                                                              |                            |                 | HAZARD SCREENING DATE: <b>2024-07-01 3:34:51</b>                                             |                              |
| %: <b>0.0000 - 2.0000</b>                                                                                                     | GreenScreen: <b>LT-UNK</b> | RC: <b>None</b> | NANO: <b>No</b>                                                                              | SUBSTANCE ROLE: <b>Glaze</b> |
| HAZARD TYPE                                                                                                                   | LIST NAME AND SOURCE       |                 | WARNINGS                                                                                     |                              |
| CAN                                                                                                                           | MAK                        |                 | Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification |                              |
| ADDITIONAL LISTINGS                                                                                                           | LIST NAME AND SOURCE       |                 | NOTIFICATION                                                                                 |                              |
| None found                                                                                                                    |                            |                 | No listings found on Additional Hazard Lists                                                 |                              |
| SUBSTANCE NOTES: *Substance range is indicated due to different decoration options included in this HPD                       |                            |                 |                                                                                              |                              |
| **According to reviewed literature studies, it can contain up to 50% quartz, which is not included in the entry for "quartz". |                            |                 |                                                                                              |                              |

ZIRCON (ZR(SIO4))

ID: 14940-68-2

|                                                                                                        |                          |                                                |                                                  |                              |
|--------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------|--------------------------------------------------|------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>                                       |                          |                                                | HAZARD SCREENING DATE: <b>2024-07-01 3:34:52</b> |                              |
| %: <b>0.0000 - 1.0000</b>                                                                              | GreenScreen: <b>BM-2</b> | RC: <b>None</b>                                | NANO: <b>No</b>                                  | SUBSTANCE ROLE: <b>Glaze</b> |
| HAZARD TYPE                                                                                            | LIST NAME AND SOURCE     | WARNINGS                                       |                                                  |                              |
| None found                                                                                             |                          | No warnings found on HPD Priority Hazard Lists |                                                  |                              |
| ADDITIONAL LISTINGS                                                                                    | LIST NAME AND SOURCE     | NOTIFICATION                                   |                                                  |                              |
| None found                                                                                             |                          | No listings found on Additional Hazard Lists   |                                                  |                              |
| SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD |                          |                                                |                                                  |                              |

PHOSPHONIC ACID, P,P'-(1-HYDROXYETHYLIDENE)BIS-, SODIUM SALT (1:?)

ID: 29329-71-3

|                                                           |                      |                                                                                        |                                           |                       |
|-----------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------|-------------------------------------------|-----------------------|
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library |                      |                                                                                        | HAZARD SCREENING DATE: 2024-07-01 3:34:52 |                       |
| %: 0.0000 - 1.0000                                        | GreenScreen: LT-UNK  | RC: None                                                                               | NANO: No                                  | SUBSTANCE ROLE: Glaze |
| HAZARD TYPE                                               | LIST NAME AND SOURCE | WARNINGS                                                                               |                                           |                       |
| EYE                                                       | GHS - Australia      | H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A] |                                           |                       |
| ADDITIONAL LISTINGS                                       | LIST NAME AND SOURCE | NOTIFICATION                                                                           |                                           |                       |
| None found                                                |                      | No listings found on Additional Hazard Lists                                           |                                           |                       |

SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD

ALUMINUM OXIDE

ID: 1344-28-1

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-07-01 3:34:52**

%: **0.0000 - 1.0000**GreenScreen: **BM-2**RC: **None**NANO: **No**SUBSTANCE ROLE: **Glaze**

| HAZARD TYPE         | LIST NAME AND SOURCE                                    | WARNINGS                                                                                                                                                  |
|---------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| MAM                 | GHS - Japan                                             | H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]                                                   |
| MAM                 | GHS - Japan                                             | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1] |
| ADDITIONAL LISTINGS | LIST NAME AND SOURCE                                    | NOTIFICATION                                                                                                                                              |
| RESTRICTED LIST     | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Biological and Environmentally Released Materials    |
| RESTRICTED LIST     | Cradle to Cradle Products Innovation Institute (C2CPII) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Children's Products                                  |

SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD

COPPER(II) OXIDE

ID: 1317-38-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-07-01 3:34:52**

%: **0.0000 - 1.0000**GreenScreen: **LT-P1**RC: **None**NANO: **No**SUBSTANCE ROLE: **Glaze**

| HAZARD TYPE         | LIST NAME AND SOURCE                        | WARNINGS                                                                                                                  |
|---------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| MUL                 | German FEA - Substances Hazardous to Waters | Class 2 - Hazard to Waters                                                                                                |
| AQU                 | EU - GHS (H-Statements) Annex 6 Table 3-1   | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]                             |
| AQU                 | EU - GHS (H-Statements) Annex 6 Table 3-1   | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| MAM                 | GHS - Japan                                 | H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]                   |
| EYE                 | GHS - New Zealand                           | Eye irritation category 2                                                                                                 |
| MAM                 | GHS - Japan                                 | H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]          |
| AQU                 | GHS - New Zealand                           | Hazardous to the aquatic environment - acute category 1                                                                   |
| AQU                 | GHS - Japan                                 | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]                             |
| AQU                 | GHS - Japan                                 | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU                 | GHS - Australia                             | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1] |
| AQU                 | GHS - New Zealand                           | Hazardous to the aquatic environment - chronic category 1                                                                 |
| ADDITIONAL LISTINGS | LIST NAME AND SOURCE                        | NOTIFICATION                                                                                                              |
| RESTRICTED LIST     | Green Science Policy Institute (GSPI)       | GSPI - Six Classes Precautionary List<br><br>Antimicrobials                                                               |

SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD

MANGANOUS CARBONATE

ID: 598-62-9

|                                                                  |                           |                 |                                                  |                              |
|------------------------------------------------------------------|---------------------------|-----------------|--------------------------------------------------|------------------------------|
| HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b> |                           |                 | HAZARD SCREENING DATE: <b>2024-07-01 3:34:53</b> |                              |
| %: <b>0.0000 - 1.0000</b>                                        | GreenScreen: <b>LT-P1</b> | RC: <b>None</b> | NANO: <b>No</b>                                  | SUBSTANCE ROLE: <b>Glaze</b> |

| HAZARD TYPE                                                                                            | LIST NAME AND SOURCE                                     | WARNINGS                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| MUL                                                                                                    | German FEA - Substances Hazardous to Waters              | Class 3 - Severe Hazard to Waters                                                                                                                         |
| REP                                                                                                    | GHS - Japan                                              | H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]                                                                     |
| MAM                                                                                                    | GHS - Japan                                              | H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1] |
| MAM                                                                                                    | GHS - Japan                                              | H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]                                          |
| ADDITIONAL LISTINGS                                                                                    | LIST NAME AND SOURCE                                     | NOTIFICATION                                                                                                                                              |
| RESTRICTED LIST                                                                                        | Cradle to Cradle Products Innovation Institute (C2CP II) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022                                                             |
|                                                                                                        |                                                          | Biological and Environmentally Released Materials                                                                                                         |
| RESTRICTED LIST                                                                                        | Cradle to Cradle Products Innovation Institute (C2CP II) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022                                                             |
|                                                                                                        |                                                          | Children's Products                                                                                                                                       |
| SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD |                                                          |                                                                                                                                                           |

|                                                                                                                      |                                           |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| ZINC OXIDE                                                                                                           | ID: 1314-13-2                             |
| HAZARD DATA SOURCE: Pharos Chemical and Materials Library                                                            | HAZARD SCREENING DATE: 2024-07-01 3:34:53 |
| %: 0.0000 - 0.5000           GreenScreen: BM-1           RC: None           NANO: No           SUBSTANCE ROLE: Glaze |                                           |

| HAZARD TYPE         | LIST NAME AND SOURCE                                     | WARNINGS                                                                                                                                               |
|---------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| END                 | TEDX - Potential Endocrine Disruptors                    | Potential Endocrine Disruptor                                                                                                                          |
| MUL                 | German FEA - Substances Hazardous to Waters              | Class 3 - Severe Hazard to Waters                                                                                                                      |
| AQU                 | EU - GHS (H-Statements) Annex 6 Table 3-1                | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]                                                          |
| AQU                 | EU - GHS (H-Statements) Annex 6 Table 3-1                | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]                              |
| MAM                 | GHS - Japan                                              | H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]                                       |
| AQU                 | GHS - New Zealand                                        | Hazardous to the aquatic environment - acute category 1                                                                                                |
| AQU                 | GHS - Japan                                              | H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]                                                          |
| AQU                 | GHS - Japan                                              | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]                              |
| AQU                 | GHS - Australia                                          | H410 - Very toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 1]                              |
| AQU                 | GHS - New Zealand                                        | Hazardous to the aquatic environment - chronic category 1                                                                                              |
| REP                 | GHS - Japan                                              | H361 - Suspected of damaging fertility or the unborn child [Toxic to reproduction - Category 2]                                                        |
| ADDITIONAL LISTINGS | LIST NAME AND SOURCE                                     | NOTIFICATION                                                                                                                                           |
| RESTRICTED LIST     | Green Science Policy Institute (GSPI)                    | GSPI - Six Classes Precautionary List<br><br>Antimicrobials                                                                                            |
| RESTRICTED LIST     | Cradle to Cradle Products Innovation Institute (C2CP II) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Biological and Environmentally Released Materials |
| RESTRICTED LIST     | Cradle to Cradle Products Innovation Institute (C2CP II) | C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022<br><br>Children's Products                               |

SUBSTANCE NOTES: Substance range is indicated due to different decoration options included in this HPD

## Section 3: Certifications and Compliance

*This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.*

| VOC EMISSIONS                                                                                                                                                                                                         | Inherently non-emitting source per LEED         |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------|
| CERTIFYING PARTY: Self-declared<br>APPLICABLE FACILITIES: All<br>CERTIFICATE URL:<br><br>CERTIFICATION AND COMPLIANCE NOTES:                                                                                          | ISSUE DATE: 2024-06-21 00:00:00<br>EXPIRY DATE: | CERTIFIER OR LAB: None  |
| ENVIRONMENTAL PRODUCT DECLARATION                                                                                                                                                                                     | EPD                                             |                         |
| CERTIFYING PARTY: Third Party<br>APPLICABLE FACILITIES: Bla ceramic tiles<br>CERTIFICATE URL:<br>https://www.aenor.com/Producto_DAP_pdf/DAP_EQUIPE_002-050%20Bla_ESP.pdf<br><br>CERTIFICATION AND COMPLIANCE NOTES:   | ISSUE DATE: 2020-02-19 00:00:00<br>EXPIRY DATE: | CERTIFIER OR LAB: AENOR |
| ENVIRONMENTAL PRODUCT DECLARATION                                                                                                                                                                                     | EPD                                             |                         |
| CERTIFYING PARTY: Third Party<br>APPLICABLE FACILITIES: BIII ceramic tiles<br>CERTIFICATE URL:<br>https://www.aenor.com/Producto_DAP_pdf/DAP_EQUIPE_002-051%20BIII_ESP.pdf<br><br>CERTIFICATION AND COMPLIANCE NOTES: | ISSUE DATE: 2020-02-19 00:00:00<br>EXPIRY DATE: | CERTIFIER OR LAB: AENOR |

## Section 4: Accessories

*This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.*

|                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MULTIPLE INSTALLATION PRODUCTS<br>MANUFACTURER (OR GENERIC): <b>Generic</b>                                                                                                                                                                                                            |
| HPD URL: No HPD available<br>ACCESSORY TYPE: Installation Accessory<br>CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Ceramic tiles, tile adhesive (thinset or pre-mixed), tile spacers, grout, waterproof membrane, primer, caulks, sealants, crack isolation membrane... |

## Section 5: General Notes

## MANUFACTURER INFORMATION

MANUFACTURER: **Equipe Ceramicas, SL**  
ADDRESS: **CV-190, KM 13**  
**Figueroles, Castellón, Comunidad Valenciana 12122**  
COUNTRY: **Spain**

WEBSITE: **<https://www.equipeceramicas.com/>**  
CONTACT NAME: **Manuel Rodriguez**  
TITLE: **Mr.**  
PHONE: **+34 964 381 930**  
EMAIL: **calidad@equipeceramicas.com**

*The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.*

## KEY

### Hazard Types

|                                       |                                                   |                                                      |
|---------------------------------------|---------------------------------------------------|------------------------------------------------------|
| <b>AQU</b> Aquatic toxicity           | <b>LAN</b> Land toxicity                          | <b>PHY</b> Physical hazard (flammable or reactive)   |
| <b>CAN</b> Cancer                     | <b>MAM</b> Mammalian/systemic/organ toxicity      | <b>REP</b> Reproductive                              |
| <b>DEV</b> Developmental toxicity     | <b>MUL</b> Multiple                               | <b>RES</b> Respiratory sensitization                 |
| <b>END</b> Endocrine activity         | <b>NEU</b> Neurotoxicity                          | <b>SKI</b> Skin sensitization/irritation/corrosivity |
| <b>EYE</b> Eye irritation/corrosivity | <b>NF</b> Not found on Priority Hazard Lists      | <b>UNK</b> Unknown                                   |
| <b>GEN</b> Gene mutation              | <b>OZO</b> Ozone depletion                        |                                                      |
| <b>GLO</b> Global warming             | <b>PBT</b> Persistent, bioaccumulative, and toxic |                                                      |

### GreenScreen (GS)

|                                                                     |                                                                |
|---------------------------------------------------------------------|----------------------------------------------------------------|
| <b>BM-4</b> Benchmark 4 (prefer-safer chemical)                     | <b>LT-P1</b> List Translator Possible 1 (Possible Benchmark-1) |
| <b>BM-3</b> Benchmark 3 (use but still opportunity for improvement) | <b>LT-1</b> List Translator 1 (Likely Benchmark-1)             |
| <b>BM-2</b> Benchmark 2 (use but search for safer substitutes)      | <b>LT-UNK</b> List Translator Benchmark Unknown                |
| <b>BM-1</b> Benchmark 1 (avoid - chemical of high concern)          | <b>NoGS</b> No GreenScreen.                                    |
| <b>BM-U</b> Benchmark Unspecified (due to insufficient data)        |                                                                |

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, [www.greenscreenchemicals.org](http://www.greenscreenchemicals.org), and Best Practices for Hazard Screening on the HPDC website ([hpd-collaborative.org](http://hpd-collaborative.org)).

### Recycled Types

**PreC** Pre-consumer recycled content  
**PostC** Post-consumer recycled content  
**UNK** Inclusion of recycled content is unknown  
**None** Does not include recycled content

### Other Terms:

**GHS SDS** Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

### Inventory Methods:

**Nested Method / Material Threshold** Substances listed within each material per threshold indicated per material  
**Nested Method / Product Threshold** Substances listed within each material per threshold indicated per product  
**Basic Method / Product Threshold** Substances listed individually per threshold indicated per product

**Nano** Composed of nano scale particles or nanotechnology  
**Third Party Verified** Verification by independent certifier approved by HPDC  
**Preparer** Third party preparer, if not self-prepared by manufacturer  
**Applicable facilities** Manufacturing sites to which testing applies

*The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:*

- a method for the assessment of exposure or risk associated with product handling or use,*
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

*Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.*

*The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.*

*The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and*





December 15, 2025

To Whom It May Concern:

RE: LEED v4 EQ Credit: Low-Emitting Materials

Equipe's manufactured products are fully compliant with the requirements of the LEED v4 EQ Credit: Low- Emitting Materials: Flooring Systems, as specified in all of the LEED® v4 Green building Rating Systems and are considered by LEED v4, CHPS and other Green Building Rating Systems to be an "Inherently nonemitting VOC source" and therefore qualify for the credit(s) without the need for FloorScore Certification or any VOC emissions testing. Ceramic tiles manufactured by Equipe are not FloorScore certified, but as noted above, it is not needed to satisfy LEED v4 and other Green Building Rating Systems criteria.

Please be advised that a representative sample of our manufactured tile products was tested in the past, prior to the exemptions given to tile products. That testing used the CA DPH Standard - Section 01350 and the results document that there are no detectable emissions of Volatile Organic Compounds (VOCs) from our fired tile products. Thus, the results exceed the requirements for obtaining the FloorScore certification.

Please see program excerpts below:

LEED-v4 for Building Design & Construction (all 8 rating systems)

EQ CREDIT: LOW-EMITTING MATERIALS - Emissions and Content Requirements

"Inherently non emitting sources. Products that are inherently non emitting sources of VOCs (stone, ceramic, powder-coated metals, plated or anodized metal, glass, concrete, clay brick, and unfinished or untreated solid wood flooring) are considered fully compliant without any VOC emissions testing if they do not include integral organic-based surface coatings, binders, or sealants."

Based on my inquiry of responsible person(s), I certify that the above information is true and accurate to the best of my knowledge.

Equipe cerámicas Quality manager: Juanjo Cid