Porcelanosa ceramic tiles by Porcelanosa

Health Product Declaration v2.1

created via: HPDC Online Builder

CLASSIFICATION: 09 30 00.00 Finishes. Tiling

PRODUCT DESCRIPTION: Porcelanosa is a company that was founded in Vila-Real (Spain) in 1973 and has a current production capacity of over 10 million m2; it makes up the matrix of a family group of companies dedicated to the manufacture and marketing of construction products (ceramic tiles, natural stone, wood, marble, bathroom materials, kitchens, adhesives, construction systems, ...). It manufactures ceramic tiles that are considered high-end, so customer expectations in this regard are high. Porcelanosa ceramic tiles are firing at high temperatures (1150 ºC - 1210 ºC). These temperatures produce chemical reactions among the different components of the ceramic body and decoration, as well as physical transformation leading to the formation of a hard, compact and strong structure, characterised by the high chemical inactivity. Ceramic tiles from Porcelanosa are fire resistants and do not give off any smoke or toxic gases, making them the best suited materials for private homes and public buildings. Their waterproof surface prevents the intromission of liquid, vapour, toxic substances, micro - organisms and and any other contaminating agent, in adition to preventing (due to its non - porous characteristics) the generation of reactions, putrefactions, efflorescence or organic growth. The chemical resistance of ceramic tiles from Porcelanosa enables them to withstand (without any alteration) cleaning with aggresive detergents and disinfectants that would otherwise be difficult to use with other wall and floor covering materials. Clays and feldespar (main raw materials for ceramic tiles) and the firing cycle, a crytical stage in the manufacturing procees, provide to Porcelanosa ceramic tiles a wide range of features (non flammable, no VOC emissions, hygienic surface, chemical resistance, esay to maintain, no hazardous components, ...). This added to the variability of desings and aesthetic finishes allows Porcelanosa to offer its customers one of the best choices for covering walls and floors. The content in recycled material of all ceramic series contributes to the sustainability of the building to which they are intended. For example, in the series with the highest content of recycled material, the ecological series, the content of recycled(pre-consumer) material is over 95%

Section 1: Summary

Nested Method / Material Threshold

CONTENT INVENTORY

Inventory Reporting Format

- (•) Nested Materials Method
- ( ) Basic Method

Threshold Disclosed Per

- (•) Material
- ( ) Product

Threshold level

- (•) 100 ppm
- ( ) 1,000 ppm
- ( ) Per GHS SDS
- ( ) Per OSHA MSDS
- ( ) Other

Residuals/Impurities

Residuals/Impurities Considered in 0 of 7 Materials

Explanation(s) provided for Residuals/Impurities?

- (•) Yes
- ( ) No

Are All Substances Above the Threshold Indicated:

Characterized (•) Yes ( ) No

Percent Weight and Role Provided?

Screened (•) Yes ( ) No

Using Priority Hazard Lists with Results Disclosed?

Identified (•) Yes ( ) No

Name and Identifier Provided?

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.

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

CLAY FELDESPAR CARBONATES (DOLOMITE OR LIMESTONE) SAND TALC GLAZE INK

Number of Greenscreen BM-4/BM3 contents ... 0

Contents highest concern GreenScreen Benchmark or List translator Score ... UNK

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This health product declaration applis to the folowing Porcelanosa series: Stonker, Parker, XL wall tiles, rectified wall tiles, wall tiles, mosaics, floor tiles, Ecologic series and all ceramic tiles series in general.

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: VOC emision declaration
Management: ISO 14001:2015 Environmental management systems
Management: ISO 9001:2015 Quality management systems
Recycled content: ISO 14021:1999 Environmental labels and declarations

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?

- ○ Yes
- ◉ No

PREPARER: Self-Prepared
VERIFIER:
VERIFICATION #:

SCREENING DATE: 2018-10-06
PUBLISHED DATE:
EXPIRY DATE: 2021-10-06

Section 2: Content in Descending Order of Quantity

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 2.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-standard

CLAY

%: 35.0000 - 55.0000 **HPD URL:**

MATERIAL THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: No waste is considered in this raw material

OTHER MATERIAL NOTES: All substances in this material are below the reportable threshold. This raw material is considered as non - hazardous

FELDESPAR

%: 10.0000 - 50.0000 **HPD URL:**

MATERIAL THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: No waste is considered in this raw material

OTHER MATERIAL NOTES: All substances in this material are below the reportable threshold. This raw material is classified as non-hazardous

CARBONATES (DOLOMITE OR LIMESTONE)

%: 10.0000 - 25.0000 **HPD URL:**

MATERIAL THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: No waste is considered in this raw material

OTHER MATERIAL NOTES: All substances in this material are below the reportable threshold. This raw material is clasiffied as non - hazardous

SAND

%: 5.0000 - 15.0000 **HPD URL:**

MATERIAL THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: No waste is considered in this raw material

OTHER MATERIAL NOTES: All substances in this material are below the reportable threshold. This raw material is clasiffied as non - hazardous

TALC

%: 3.0000 - 10.0000 **HPD URL:**

MATERIAL THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: No waste is considered in this raw material

OTHER MATERIAL NOTES: All substances in this material are below the reportable threshold. This raw material is clasiffied as non - hazardous.

GLAZE

%: 0.2000 - 5.0000

HPD URL:

MATERIAL THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: No waste is considered in this raw material

OTHER MATERIAL NOTES: All substances in this material are below the reportable threshold. This raw material is classified as non - hazardous

INK

%: 0.1000 - 1.0000

HPD URL:

MATERIAL THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: No waste is considered in this raw material

OTHER MATERIAL NOTES: All substances in this material are below the reportable threshold. This raw material is classified as non - hazardous

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 — **VOC emision declaration**

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: Porcelanosa factory. All ceramic tiles.
CERTIFICATE URL: http://www.porcelanosa.com/

ISSUE DATE: 2018-09-01

EXPIRY DATE: 2021-09-01

CERTIFIER OR LAB: Porcelanosa (manufactures's self - declaration)

CERTIFICATION AND COMPLIANCE NOTES: Ceramic tiles by Porcelanosa are mineral based finish flooring products, without integral organic-based coatings after firing and without Volatile organic compounds emissions (No VOC emissions). Ceramic tiles are made with inorganic and not hazardous raw materials by a firing process with high temperature (1150 - 1220 ºC) and a cycle around 60 minutes . No warnings or hazards are associated with the final products. VOC content: Ceramic tiles products meet LEED qualifications for an inherently non - emiting source and hence do not require testing. Mineral based flooring products (eg. ceramic tiles) qualify for credit without any IAQ testing requirements

MANAGEMENT — **ISO 14001:2015 Environmental management systems**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: Porcelanosa factory. Design, production, distribution and marketing of floor tiles, wall tiles and special ceramic pieces
CERTIFICATE URL: http://www.porcelanosa.com/

ISSUE DATE: 2004-04-15

EXPIRY DATE: 2019-02-04

CERTIFIER OR LAB: SGS

CERTIFICATION AND COMPLIANCE NOTES: Environmental management system

MANAGEMENT — **ISO 9001:2015 Quality management systems**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: Porcelanosa factory. Design, production, distribution and commercialization of floor tiles, wall tiles and complementary ceramic pieces.
CERTIFICATE URL: http://www.porcelanosa.com/

ISSUE DATE: 2017-11-30

EXPIRY DATE: 2020-11-30

CERTIFIER OR LAB: SGS

CERTIFICATION AND COMPLIANCE NOTES: Quality management system

RECYCLED CONTENT — **ISO 14021:1999 Environmental labels and declarations**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: Porcelanosa factory (Ecologic series)
CERTIFICATE URL: http://www.porcelanosa.com/

ISSUE DATE: 2018-06-04

EXPIRY DATE: 2019-06-04

CERTIFIER OR LAB: SGS

CERTIFICATION AND COMPLIANCE NOTES: Ecologic series with preconsumer recycled material over 95%

MANAGEMENT — **ISO 50001:2011 Energy efficiency**

CERTIFYING PARTY: Third Party
APPLICABLE FACILITIES: Porcelanosa Factory.

ISSUE DATE: 2016-02-04

EXPIRY DATE: 2019-02-04

CERTIFIER OR LAB: SGS

Design, production and marketing of floor tiles, wall tiles and special ceramic pieces.

CERTIFICATE URL: http://www.porcelanosa.com/

CERTIFICATION AND COMPLIANCE NOTES: Energy efficiency

MULTI-ATTRIBUTE | **Environmental Product Declaration (EPD)**

CERTIFYING PARTY: Third Party

ISSUE DATE: 2016-07-25

EXPIRY DATE: 2021-07-25

CERTIFIER OR LAB: Architects Guild of Barcelona

APPLICABLE FACILITIES: Porcelanosa factory. All products. Ecolabel type III

CERTIFICATE URL: http://www.porcelanosa.com/

CERTIFICATION AND COMPLIANCE NOTES: Environmental product declaration for floor tiles and wall tiles (ISO 14025)

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.

ADHESIVES AND GROUTING MATERIALS | HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

See http://www.butech.net/ and http://www.porcelanosa.com/ (installation, cleaning and maintenance instructions)

Section 5: General Notes

Thanks to their intrinsic properties, ceramic tiles manufactured and sold by Porcelanosa are ideal as wall and floor coverings in places where specific requirements must be met in order to ensure the wellbeing of their users. These properties include: - High hygiene standards, due to their waterproof vitreous surface. - Resistance to fire. - No emissions of volatile organic compounds, given the inorganic raw materials that are mainly used to make tiles and the firing temperature (+1100ºC). - Low electrical conductivity. - Low radioactive emissions. - High hygiene standards Within the tile manufacturing process, the tiles are fired at high temperatures of about 1100ºC to 1200ºC or even higher in the case of porcelain tiles. This temperature sparks off chemical reactions in the different components of the tile body and decorative layer. Physical changes also take place that mainly result in the formation of a hard, compact, resistant structure and in the reaction and immobilization of heavy metals, leading to the creation of compounds that are highly chemically inert. Microorganisms of any kind can therefore be ruled out, since the temperatures to which the tiles are subjected during the manufacturing process make their survival impossible. If ceramic wall and floor tiles are properly laid (using appropriate bonding and grouting materials), they can be one of the most efficient, convenient, safe ways of ensuring hygiene and cleanliness. Their waterproof surface repels liquids, vapours, toxic substances and other pollutants, thus avoiding reactions, putrefaction, efflorescence and organic growth thanks to their non-porous properties. At the same time, because tiles are resistant to chemicals, they can withstand the use of detergents and aggressive disinfectants that can rarely be used with other coverings without being affected in any way. Likewise, because ceramic wall and floor tiles are equipotential and they do not build up static electricity, they do not attract electrically charged atmospheric dust. Thanks to the surface properties of ceramic tiles, substances do not stick to them. Should this occur due to the action of another vehicle (such as grease or mud), these substances can easily be removed. This guarantees a high standard of hygiene, with no deposits, build-up or nests of microorganisms, pathogenic substances or allergens. - Behaviour when exposed to fire The behaviour of ceramic materials when exposed to fire can be assessed by

using three criteria: - Resistance to the destructive action of flames. - Possible contribution to the spread of fire. - The emission of smoke or toxic substances. Based on these criteria, in a study by the CET (European Ceramic Tile Manufacturers' Federation), experimental tests were conducted to assess the behaviour of different materials currently used as wall and floor coverings when exposed to fire, using the following parameters: 1. Calorific power: Defined as the amount of heat that is released during the total combustion of a substance. Based on this parameter, ceramic wall and floor tiles were the only totally non-combustible materials within the temperature range at which a fire normally occurs. 2. Oxygen index: The minimum concentration of oxygen needed to keep a material burning. Ceramic tiles are non-combustible, whatever the concentration of oxygen. 3. Ignition temperature: The temperature at which a material catches fire in the presence or absence of a flame respectively. Once again, tiles are non-combustible. 4. Flame development: The speed at which flames advance. 5. Flammability: Defined as the speed at which a flame spreads from one side of a material to the other. 6. Flame length 7. Combustibility: This parameter analyses the heat that is produced when a material burns and the speed of combustion. In the case of these last four parameters, wall and floor tiles are also totally non-combustible. 8. Smoke density and toxicity: Smoke is dangerous in as much as it reduces visibility, hindering possible escape from a building in flames. There is also a risk of asphyxia or intoxication due to the presence of CO. By way of an example, if the concentration of O2 falls to 14% and visibility drops to 20%, the concentration of CO will reach 0.5%. Under such conditions, expectations of survival are reduced to fewer than five minutes. Porcelanosa's wall and floor tiles do not release any smoke or toxic gases. This makes them ideal (thanks too to their positive results when tested for the other parameters) in homes and public buildings used by high numbers of people, like hotels, offices, hospitals, service and shopping areas, nightclubs etc. Among European legislation regulating construction products in general, Directive 89/106/EC "On the approximation of laws, regulations and administrative provisions of the Member States relating to construction products" indicates the appendixes where products exempt from fire tests can be found. That is, "products with no contribution to fire." Subsequent to the said directive, Decision 96/603/EC was passed: "Commission Decision of 4 October 1996 establishing the list of products belonging to class A (no contribution to fire) provided for in Decision 94/611/EC, by virtue of which Article 20 of Directive 89/106/EC is applied on construction products" and where the aforementioned appendixes can be found. Products with no contribution to fire are included in the form of a table, with ceramic tiles featuring in the last group. Our products, which were rated A1S, fall into this last group. Royal Decree 312/2005 of March 18th approved the classification of construction products and construction elements in accordance with their reaction and resistance to fire. In Appendix 1 of the said decree, Table 1.2-1 lists the materials fire rated as class A1 and A1fl (materials that, as such, do not need testing). Featured among these materials are ceramic tiles, including extruded tiles and tiles made of pressed clay, both glazed and unglazed. - Electrical conductivity Ceramic materials are classic insulators since they do not conduct electricity. This is an important characteristic in terms of safety because they do not build up static electricity and thus they do not constitute a hazard in potentially explosive atmospheres where there might be a build-up of flammable gases. The colourfastness of ceramic stains when exposed to sunlight Some substances are well known to undergo changes when exposed to sunlight for a prolonged length of time. The coloured glazes and ceramic stains used to decorate wall and floor tiles remain unchanged when exposed to sunlight for any length of time. Thanks to this property and to tiles' chemical resistance to changes in temperature, tiled coverings not prone to mechanical wear and tear remain unaltered for centuries. - No emissions of volatile organic compounds: The raw materials used to manufacture Porcelanosa's ceramic tiles are mainly inorganic. Added to the temperature at which the company's tiles are fired, this makes it impossible for the end product to give off VOCs. Indeed, Porcelanosa's tiles achieved the highest possible corresponding rating (A+) (emissions of VOCs), a compulsory requirement under French legislation as from 2013. - Low radioactive emissions: As for indexes of radioactivity, based on a European Union study, materials above the following thresholds are considered to give off radioactive emissions that might constitute a risk for human health when used continuously in close proximity: - Uranium: 200 Bq/Kg - Thorium: 200 Bq/Kg - Potassium: 3000 Bq/Kg When Porcelanosa's tiles were tested, they were found to be well under those thresholds and so they do not constitute a health risk in terms of radioactive emissions. Porcelanosa tests its products each year. These tests are needed in order to commercialize products on the Chinese market, since China's legislation in this respect is even more restrictive. The company's tiles achieved the highest rating (class A), meaning that they can be laid in any public facilities (schools, hospitals, nurseries etc). - No emissions of heavy metals (Lead and Cadmiun): For ceramic in contact with foods, the following values are required: Lead Cadmiun 1st category 0.8 mg/dm2 0.07 mg/dm2 2nd category 4 mg/l

0.3 mg/l 3rd category 1.5 mg/l 0.1 mg/l Ceramic tiles in Porcelanosa achieve the following results, bellow the detection limits: Lead < 0.2 mg/l (< 0.009 mg/dm2) Cadmiun < 0.02 mg/l (<0.0009 mg/dm2) These values are far below what is allowed for ceramic in contact with foods.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Porcelanosa**
ADDRESS: **Road N 340, Km 56.2**
Vila - ral Castellón 12540, Spain
WEBSITE: **http://www.porcelanosa.com/**

CONTACT NAME: **Juan José Cid**
TITLE: **Quality and environment manager (Environment specialist)**
PHONE: **+34 964 50 71 00**
EMAIL: **jcid@porcelanosa.com**

KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

AQU Aquatic toxicity
CAN Cancer
DEV Developmental toxicity
END Endocrine activity
EYE Eye irritation/corrosivity
GEN Gene mutation
GLO Global warming
MAM Mammalian/systemic/organ toxicity
MUL Multiple hazards
NEU Neurotoxicity
OZO Ozone depletion
PBT Persistent Bioaccumulative Toxic
PHY Physical Hazard (reactive)
REP Reproductive toxicity
RES Respiratory sensitization
SKI Skin sensitization/irritation/corrosivity
LAN Land Toxicity
NF Not found on Priority Hazard Lists

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)
BM-3 Benchmark 3 (use but still opportunity for improvement)
BM-2 Benchmark 2 (use but search for safer substitutes)
BM-1 Benchmark 1 (avoid - chemical of high concern)
BM-U Benchmark Unspecified (insuficient data to benchmark)
LT-P1 List Translator Possible Benchmark 1
LT-1 List Translator Likely Benchmark 1
LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
NoGS Unknown (no data on List Translator Lists)

Recycled Types

PreC Preconsumer (Post-Industrial)
PostC Postconsumer
Both Both Preconsumer and Postconsumer
Unk Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms
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 for compliance with the HPD standard noted.