



Below you will find the following information about our company's sustainability

Page 3 Porcelanosa Enviromental

Product Declaration Floor Facade

Tile 12 mm

Page 24 Porcelanosa Enviromental

Product Declaration Xtone

Tile 12 mm

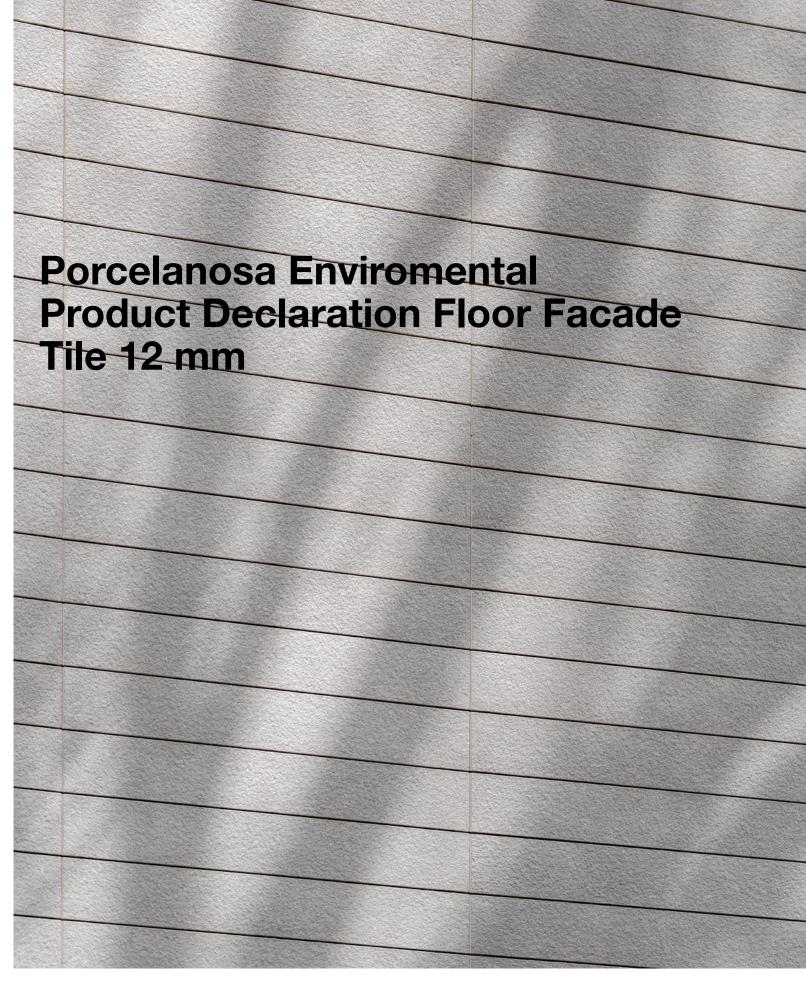
Page 47 Porcelanosa Health

Product Declaration

Tile 12 mm

Page 59 Porcelanosa

The Green Issue N4











DECLARACIÓN AMBIENTAL DE PRODUCTO ENVIRONMENTAL PRODUCT DECLARATION

DAPcons®.

According to ISO 14025 and EN UNE 15804 + A2:2020



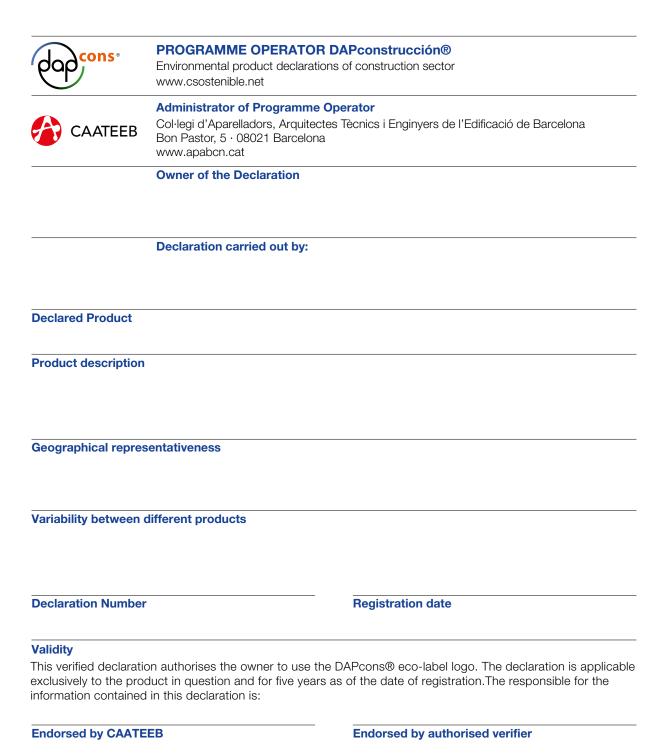


Product			
Owner			
Duaduat descripti			
Product descripti	ion		
PCR Reference			
Production plant			
Validity			
	То:		
From:	10:		

The validity of DAPcons® is subject to the conditions of DAPcons® regulations. The relevant version of this DAPcons® is included in the register kept by the CAATEEB; for more information, consult the Program Operator website: www.csostenible.net



ENVIRONMENTAL PRODUCT DECLARATION. EXECUTIVE SUMMARY









ENVIRONMENTAL PRODUCT DECLARATION

1. PRODUCT DESCRIPTION AND APPLICATION













2. LIFE CYCLE PHASES DESCRIPTION

Raw materials (A1 and A2)			

Manufacturing (A3)





2.2. Construction (A4 and A5)

Product transport to the building site (A4)

Table 1. Transport scenarios of product to the building site

Destination	Type of transport	Percentage (%)	Average Km
Spain			
Europe			
Rest of the world			
		Total 100%	

Construction and instalation process (A5)







2.3. Product use (B1-B7)

2.4. End-of-life (C1-C4)

2.5. Benefits and loads beyond the system boundary (D)





3. LIFE CYCLE ASSESSEMENT

3.1. Unit

3.2. System boundary

Table 2. Declared modules

Product stage		Constr Proces Stage		Use stage				Е	ind of li	fe stag	e	Benefits and loads beyond the system boundaries				
Raw materials supply	Transport	Manufacturing	Transport	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy use	Operational water use	De-construction	Transport	Waste processing	Disposal	Reuse, recovery, recycling potential
A1	A2	АЗ	A4	A5	B1	B2	ВЗ	B4	B5	В6	B7	C1	C2	СЗ	C4	D

X = Included in LCA

MND = Module not Declared







3.3. Data analysis for the life cycle (LCA)

Table 3. Indicators of the environmental impact







Table 4. Use of resources, waste and material outflows parameters

EXCEL







Table 5. Kg of biogenic carbon

Product	Kg
Packaging	Kg

3.4. Recommendations of this DAP

3.5. Cut-off rules

3.6. Additional environmental information

3.7. Other data





4. TECHNICAL INFORMATION AND SCENARIOS

4.1. Transport from the factory to the building site (A4)

Parameter	Parameter expressed by functional unit
Type and fuel consumption, type of vehicle used for transportation	
Distance	
Capacity utilization (including empty return)	
Apparent density of transported product	
Useful capacity factor (1, <1, or> 1 for products that are packed compressed or nested)	

4.2. Installation processes (A5)

Parameter	Parameter expressed by functional unit
Construction ancillary materials (specifying each material)	
Water consumption	
Consumption of other resources	
Quantitive despription of the type of energy (mix regional) and consumption during the installation process	
Materials waste on site before waste treatment, generated by the installation of the product (specify by type)	
Material outputs (specified by type) as a result of waste treatment on the building site. For example: collection for recycling, energy valuation, disposal (specified by route)	
Emisions to the air, ground or water	





Reference service life (B1)

Parameter	Parameter expressed by functional unit
Reference service life (RSL)	
Properties and characteristics of the product	
Requirements (ways of using, maintenance frequency, repair, etc.)	

4.4. Maintenance (B2), repair (B3), replacement (B4) or refurbishement (B5)

B2 Maintenance				
Parameter	Parameter expressed by functional unit			
Maintenance, for example: cleaning agent, type of surfactant				
Maintenance cycle				
Auxiliar materials for the maintenance process (specifying each material)				
Net consumption of fresh water				
Loss of material during maintenance or repair (specifying the type)				





B3 Repair	
Parameter	Parameter expressed by functional unit
Repair process	
Inspection process	
Repair cycle	
Auxiliary materials (specifying each material), e.g. lubricant	
Energy input during repair, vector type energy (for example, electricity) and quantity	
Energy input during the process of renovation (amount and type of energy vector)	
Loss of material during repair (specifying each material)	
Net consumption of fresh water	

B4 Replacement				
Parameter	Parameter expressed by functional unit			
Energy input during replacement, for example for the use of cranes (quantity and energy vector)				
Worn out parts replacement in the life cycle of the product (specifying each material)				
Replacement cycle				





B5 Rehabilitation	
Parameter	Parameter expressed by functional unit
Rehabilitation process	
Rehabilitation cycle	
Energy input during rehabilitation, for example for the use of cranes (quantity and energy vector)	
Material input for rehabilitation, including auxiliary materials (specified by material)	
Material waste during rehabilitation (specifying each material)	
Other scenario development assumptions	

4.5. Useful life reference

Parameter	Parameter expressed by functional unit
Useful life reference	
Product declared properties, finishes, etc.	
Application design parameters (manufacturer's instructions)	
Workmanship quality estimation, when installed in accordance with the manufacturer's instructions	
Outdoor environment for outdoor applications. For example, weather, pollutants, UV radiation, temperature, etc.	





Indoor environment for indoor applications. For example, temperature, humidity, exposure to chemicals
Terms of use. For example, frequency of use, mechanical exposure, etc.
Maintenance. For example, the required frequency, etc.

4.6. Operational use of energy (B6) and water (B7)

Parameter	Parameter expressed by functional unit
Construction ancillary materials (specified by material)	
Energy vector type. For example, electricity, natural gas, district heating	
Equipment output power	
Net fresh water consumption	
Characteristic features (energy efficiency, emissions, etc.)	
Other scenarios development assumptions. For example, transportation	





4.7. End of life (C1-C4)

Process	Parameter expressed by functional unit
Collection processes (specified by types)	
Recovery systems (specified by type)	
Elimination	
Assumptions for the development of scenarios. For	
example, transportation	

5. ADDITIONAL INFORMATION







6. PCR AND VERIFICATION

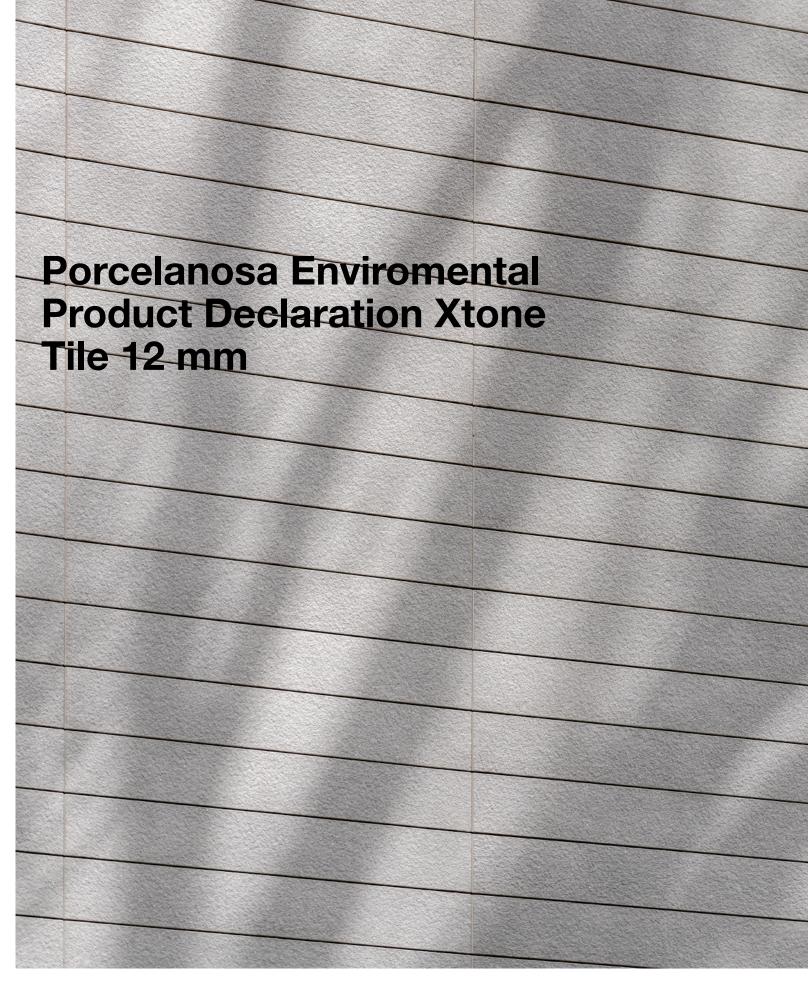
This declaration is based on the Document
Independent verification of the declaration and data according to ISO 14025 and UNE
EN15804 + A2
Internal External
Independent verifier appointed
Verification date
References

Administrator of programme operator

Col·legi d'Aparelladors, Arquitectes Tècnics i Enginyers de l'Edificació de Barcelona (CAATEEB) Bon Pastor 5, 08021 Barcelona www.apabcn.cat









DAPcons®.NTe.241

DECLARACIÓN AMBIENTAL DE PRODUCTO ENVIRONMENTAL PRODUCT DECLARATION

EPD of multiple products

According to the standards:

ISO 14025 and UNE-EN 15804:2012+A2:2020/AC:2021







DECLARACIÓN AMBIENTAL DE PRODUCTO ENVIRONMENTAL PRODUCT DECLARATION

EPD of multiple products

DAPcons®.NTe.241
According to the standards:

ISO 14025 and UNE-EN 15804:2012+A2:2020/AC:2021







GENERAL INFORMATION

Product

Large format porcelain stoneware, 12mm thickness (XTONE) (Bla classification according to EN 14411:2016)

Company

PORCELANOSA

Product description

The large-format 12mm thick porcelain stoneware product (XTONE) includes different glazed and unglazed ceramic product families from the BIa absorption group (formed by dry pressing with water absorption WA ≤0.5%). The results presented in this declaration refer to an average product that represents various series. The average product has been calculated based on the weight per square meter of the different series included and weighted according to the production during the studied period.

The formats covered by this declaration have a thickness of 12mm and weights ranging from 29.66kg/m^2 to 29.95kg/m^2 , with an average weight of 29.84kg/m^2 .

Reference RCP

UNE-EN 17160:2019 Product category rules for ceramic tiles.

Production plant

Production Plant 4 of PORCELANOSA N-340 Road, KM 56, 12540 VILLARREAL – Castellón, Spain

Validity

From: 21/07/2025 Until: 21/07/2030

The validity of DAPcons®.NTe.241 is subject to the conditions of the regulation DAPcons®. The current edition of this DAPcons® is the one that appears in the registry maintained by Cateb; for informational purposes, it is included on the Program website www.dapcons.com







EXECUTIVE SUMMARY

Large format porcelain stoneware, 12mm thickness (XTONE) (Bla classification according to EN 14411:2016)

cons	DAPconstruction® Programme Operator Environmental Product Declarations in the Construction sector www.dapcons.com
Cateb T cateb Arquitectura Tecnica Barcelona	Programme Manager Colegio de la Arquitectura Técnica de Barcelona (Cateb) Bon Pastor, 5 · 08021 Barcelona www.cateb.cat
PORCELANOSA	Owner of the declaration PORCELANOSA, S.A.U. Ctra. Nacional 340, Km 56'2 12540 - VILA-REAL/VILLARREAL (España) www.porcelanosa.com
ReMa-INGENIERÍA, S. L.	Author of the Life cycle assessment: ReMa-INGENIERÍA, S.L. Calle Crevillente, 1, entlo., 12005 - Castelló, España

Declared product

Large format porcelain stoneware, 12mm thickness (XTONE) (Bla classification according to EN 14411:2016)

Geographic representation

The raw materials used in the product are of global origin. The product is manufactured at Porcelanosa's Plant 4 (Villarreal, Castellón – Spain) and is distributed worldwide.

Variability between different products

The variability of the Global Warming Potential impact category for stages A1–A3 of the different products included in this declaration is below 10%.

Declaration number Issue date DAPcons®.NTe.241 13/05/2024

Validity

This verified declaration authorizes its holder to carry the logo of the operator of the ecolabelling program DAPconstruction®. The declaration is applicable exclusively to the mentioned product and for five years from the date of registration. The information contained in this statement was provided under the responsibility of: **PORCELANOSA, S.A.U.**

Programme Administrator Signature

Celestí Ventura Cisternas. President of Cateb

Verifier Signature

DAVID PORRAS MELENDEZ. MARCEL GOMEZ CONSULTORIA AMBIENTAL SL. Verifier accredited by the administrator of the DAPcons® Programme







ENVIRONMENTAL PRODUCT DECLARATION

1. PRODUCT DESCRIPTION AND USE

The product included is a large-format 12mm thick porcelain stoneware (XTONE), which comprises different models of large-format glazed and unglazed ceramic slabs from absorption group BIa, according to UNE-EN 14411:2016. It is formed by continuous roller pressing with water absorption ≤ 0.5%.

The formats covered by this declaration have a thickness of 12mm and weights ranging from 29.66kg/m^2 to 29.95kg/m^2 , with an average weight of 29.84kg/m^2 .

The results presented in this declaration refer to an average product that represents various series. The average product has been calculated based on the weight per square meter of the different series included and weighted according to the production during the year under study.

The variability of the Global Warming Potential (GWP) impact category for stages A1–A3 of the different products included in this declaration is below 10%.

The main recommended use for this product is as flooring and/or wall and façade cladding, both for interior and exterior applications. It is also suitable for use as kitchen countertops, furniture cladding, tables, and furniture accessories.

The CPC code of the products is 37310 – Ceramic tiles and slabs, glazed or unglazed.

1.1 Content information

Product components

The components of the XTONE 12 mm BIa tile are:

Clays: 14-24%

Feldspars: 66–76%

Kaolin: 1–9% Talc: 1–6% Others: 1–9%

Reintroduced internal clay-based material: 1-6%

Glaze: 1-6%

The composition of the glazes is frit:water at a 1:1 ratio. The frit consists of: 24% quartz, 24% feldspars, 14% zirconium, 10% carbonates, and the remainder is various clay-based materials and other components.

Packaging materials

The packaging materials are:

Cardboard: 2.75E-01 kg/m² Plastic: 7.49E-02 kg/m² Wood: 2.22E-01 kg/m²

Others: 1.18E-03 kg/m²









Image - Bla XTONE 12mm Product

Table of Technical Characteristics

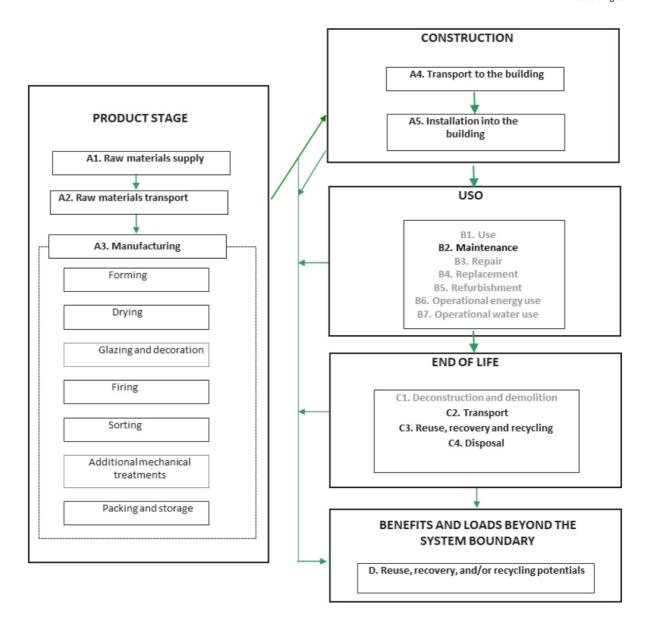
TEST	STANDARD	ISO 13006	XTONE VALUES NON RECTIFIED		
Length and width		UNE-EN 14411	Complies with standard		
		±0,6% Max. ±2mm (*)	Cumple la norma		
Medida de longitud y de anchura		±0,6% Max. ±2mm (*)	Respecte la norme		
Mesure de la longueur et de la largeur			•		
Thickness		.0.5 (#)	Complies with standard		
Medida del grosor		±0,5mm (*)	Cumple la norma		
Mesure de l'épaisseur			Respecte la norme		
Straightness of sides			Complies with standard		
Medida de la rectitud de los lados	UNE-EN ISO 10545-2	±0,5% Max. ±2mm (*)	Cumple la norma		
Mesure de la rectitude des côtés			Respecte la norme		
Squareness			Complies with standard		
Medida de la ortogonalidad		±0,5% Max. ±2mm (*)	Cumple la norma		
Mesure de l'orthogonalité			Respecte la norme		
Surface flatness side curvature-central curvature-warpage			Complies with standard		
Medida de la planitud de la superficie lateral-central-alabeo		±0,5% Max. ±2mm (*)	Cumple la norma		
Mesure de la planéité de la surface latérale-centrale-gauchissement			Respecte la norme		
Water absorption			Complies with standard		
Absorción de agua	UNE-EN ISO 10545-3	≤ 0.5%	Cumple la norma		
Absorption d'eau			Respecte la norme		
Bending strength			Complies with standard		
Resistencia a la flexión		Min. ≥ 35 N/mm ²	Cumple la norma		
Résistance au poinçonnement			Respecte la norme		
Breaking strength	UNE-EN ISO 10545-4	Thickness / Espesor / Épaisseur	Complies with standard		
Fuerza de rotura		< 7,5 ≥ 700N	Cumple la norma		
Charge de rupture			Respecte la norme		
Resistance to abrasion			Complies with standard		
Resistencia a la abrasión	UNE-EN ISO 10545-6	Max. <175mm ³	Cumple la norma		
Résistance à l'abrasion			Respecte la norme		
Thermal shock resistance		Required	Complies with standard		
Resistencia al choque térmico	UNE-EN ISO 10545-9	Exigido	Cumple la norma		
Résistance au choc thermique			Respecte la norme		
Frost resistance		Required	Complies with standard		
Resistencia a la helada	UNE-EN ISO 10545-12	Exigido	Cumple la norma		
Résistance au gel			Respecte la norme		
Chemical resistance			Complies with standard		
Resistencia química	UNE-EN ISO 10545-13	Class Min B	Cumple la norma		
Résistance chimique			Respecte la norme		
Resistance to staining			Complies with standard		
Resistencia a las manchas	UNE-EN ISO 10545-14	Class Min 3	Cumple la norma		
Résistance aux taches	5 211100 10040 14	Old S T III C	Respecte la norme		
(t) Deviation and districts	1 11-1 1- 5-1 1	D 6 (-4)	<u> </u>		

^(*) Deviation regarding the manufacturring measure. Desviación respecto a la medida de fabricación. Déviation par rapport à la mesure de fabrication.









2. DESCRIPTION OF THE STAGES OF THE LIFE CYCLE

2.1. Manufacturing (A1, A2 y A3)

Raw Materials and transport (A1 y A2)

The average Porcelain product is primarily composed of clay, sand, and feldspar, with a glaze layer mainly made of feldspar, carbonate, silicates, kaolin, and other materials.

The raw materials used come from various origins (regional, national, Turkey, Ukraine, or the United Kingdom).

This variation is due to the impossibility of sourcing all raw materials from a single origin. Raw materials imported from outside Spain are transported by cargo ship to the Port of Castellón and then by 24-ton EURO VI trucks to the production plants.

For maritime transport, an average transoceanic cargo vessel has been considered. Transport distances vary depending on the country of origin. All raw materials are transported in bulk.







Manufacturing (A3)

Once delivered to the factory, the raw materials are individually stored in hoppers, which dose the required amount of each material to initiate the process. After mixing, the blend undergoes wet milling in a continuous ball mill with silex and alumina media.

Next, through the atomization process, excess moisture is removed from the slurry to obtain a homogeneous mixture of the various components, with a specific particle size, and to condition it for proper shaping.

The next step is shaping. The flat tiles are molded by pressing, using a continuous roller pressing system. After pressing, the tile is dried to reduce moisture content, increasing its green strength and enabling subsequent processing. The freshly dried tiles are then coated with one or more layers of glaze. This treatment provides the fired surface with specific technical and aesthetic properties such as impermeability, gloss and color, surface texture, and mechanical and chemical resistance. The glazes are manufactured at an external facility and are formulated by selecting appropriate raw materials based on a predetermined oxide composition, whose chemical and mineralogical properties significantly influence the final characteristics of the product.

The tiles are then introduced into the kiln for firing. Firing is the most critical stage in the ceramic tile production process, as it causes fundamental changes in the properties of the pieces. Once fired, the tiles are transported to the classification station, where they undergo visual and dimensional quality control. Some series are rectified prior to classification to achieve perfectly straight edges using grinding wheels.

Finally, the finished product is packaged using cardboard, polyethylene, wood, and other materials. Once the pallet is formed, it is stored in the plant's logistics area, ready to be shipped to the customer.

Throughout the production process, waste clay materials (both raw and fired) and industrial wastewater are generated. These are reintroduced into the ceramic tile manufacturing process, either internally or through external managers (spray dryers).

To reduce atmospheric emissions, bag filters are used—these consist of a textile membrane that is permeable to gases and retains dust particles.

The electricity mix used corresponds to the 2023 supplier data from IBERDROLA (0.261 kg CO₂/kWh).

2.2. Construction process stage (A4 y A5)

Transport to the building site (A4)

PORCELANOSA produces tiles that are marketed both nationally and across Europe, as well as in the rest of the world.

For transcontinental transport, an average transoceanic cargo ship has been considered. For road transport, a 27-ton EURO VI truck has been assumed.

Table 1. Basic of a scenario with the parameters described in the following table

Destinations	Type of transport	Percentage	Average km
Spain	27t truck	30	600
Europe	27t truck	19	1274
	Barge	8	540
Dook of the world	27t truck	3	562
Rest of the world	Barge	40	7822







Product installation process and construction (A5)

To characterize the product installation scenario, the guidelines from standard UNE-EN 17160 have been used:

Auxiliary materials: Table 11, Option 1 — Mortar: 3.3 kg/m^2 and water: 0.8 L/m^2 .

2.3. **Product use (B1-B7)**

Use (B1)

The impact of the product at this stage is null, as no materials are consumed and there are no emissions to the environment during its useful life.

Maintenance (B2)

To characterize the cleaning scenario, the guidelines from UNE-EN 17160 have been followed:

Maintenance scenario for ceramic floor tiles (residential use):

- 0.134 ml of detergent is used once every two weeks, and
- 0.1 L of water is used to clean 1 m² of ceramic floor tiles once per week.

Repair (B3)

According to PORCELANOSA, the reference service life of the product will be the same as that of the building in which it is installed, since—when properly installed—it is a durable product. Therefore, it does not require any repair.

Replacement (B4)

The product does not require any replacement.

Refurbishment (B5)

The product does not require any refurbishment.

Operational energy use (B6)

Ceramic products do not consume energy during the use phase of the building. By default, the associated environmental impacts are zero.

Operational water use (B7)

Ceramic products do not consume water during the use phase of the building. By default, the associated environmental impacts are zero.

2.4. End of life (C1-C4)

Deconstruction and demolition (C1)

Once its service life has ended, the product will be removed, either as part of a building refurbishment or during demolition. In the context of building demolition, the impacts attributable to the product's deconstruction are negligible. Therefore, the impact of stage C1 – Deconstruction, demolition – has been considered negligible.

Transport to waste processing (C2)

The transport of residual materials is carried out using a 27-ton EURO VI truck. An average distance of 50 km has been estimated from the demolition site to the landfill and to the recycling plant, in accordance with the







guidelines provided in the PCRs.

Waste processing for reuse, recovery and/or recycling (C3)

It has been estimated that 70% of the residual ceramic material is sent for recycling, following the guidelines provided in the PCRs. Collection burdens have been assumed to be negligible.

Disposal (C4)

It has been estimated that 30% of the residual ceramic material is sent to landfill, following the guidelines provided in the PCRs.

100% of the residual mortar is assumed to be landfilled.

2.5. Reuse/recovery/recycling potential (D)

In this Module D, the existence of environmental loads and credits (i.e., avoided environmental impacts) outside the system boundaries is declared, due to the reuse, recovery, or recycling of certain output flows from the system. The declared impacts are net values resulting from the accounting of the impacts from the recycling and energy recovery processes, subtracting the impacts of producing the primary materials or fuels that are displaced or substituted by the recycled ones, while considering the quality differences between primary and secondary materials.

3. LIFE CYCLE ASSESSMENT

This study was carried out using the LCA tool SimaPro 9.6.0.1 by PRé Sustainability, which has been developed based on the UNE-EN ISO 14040–14044 standards, and using the Ecoinvent v3.10 (2023) database.

This LCA follows a "cradle-to-grave" approach, encompassing the product manufacturing, construction, use, and end-of-life stages.

Specific data from Plant 4 of PORCELANOSA (Villarreal, Castellón), corresponding to the period from February 2023 to March 2024, have been used to inventory the manufacturing stage..

The study is based on:

- UNE-EN 15804:2012+A2:2020/AC:2021 (and its corrigendum),
- UNE-EN 17160:2019, Product Category Rules (PCRs) for ceramic tiles, and follows the principles of modularity and the "polluter pays" approach.

Allocation procedures:

- Internal recycled materials (such as chamotte and unfired scraps) enter the process with no environmental burden; they are considered to have reached "end-of-waste" status upon entering the atomization plant. The recycling process is accounted for as if they were conventional raw materials.
- Recyclable waste is considered to reach the end-of-waste status at the gate of the waste management facility → only transportation impacts are included.
- Co-products from stages A1-A3 are not included in Module D.
- For external recycled materials (e.g., chamotte), as it is a waste material derived from fired ceramic tiles, an







economic allocation is applied. A value is assigned to the chamotte based on the average market price of ceramic tiles and the price of chamotte itself. Based on this price ratio, a proportional share of the environmental burden of ceramic tile production is attributed to the chamotte.

Production at plants: Allocation methods

- Clay-based materials: Allocated by plant according to atomizer production and destination. Allocated by product family based on kilograms produced.

Energy:

- Natural gas: Allocated by mass, except for atomizers (allocation based on the destination of the atomized material).
- Electricity: Allocated proportionally to the square meters produced.
- Diesel, alumina balls, packaging: Allocated proportionally to the kilograms of production.
- Water: Allocated proportionally to the square meters produced.

Emissions:

- CO₂ from combustion and other parameters: Allocated according to natural gas consumption per product.
- CO₂ from the process (decarbonation): Allocated proportionally to the kilograms produced of the corresponding ceramic body.
- Effluents and waste: Allocated proportionally to the kilograms produced.
- Cogeneration: Part of the electricity generated is consumed internally; the surplus sold is considered an avoided burden (accounted for only in Module A3, not in Module D).

3.1. Functional Unit

"Covering of $1m^2$ of a surface (flooring) in a dwelling for 50 years with BIa Porcelain Stoneware ceramic tiles XTONE $12\,\text{mm}$ "

Additional comments

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3.2. Scope and modules that are declared

Table 2. Declared modules

Product stage				truction ess Stage		Use stage					Er	nd of li	ife sta	ge	Benefits and loads beyond the system boundaries	
Raw materials supply	Transport	Manufacturing	Transport	Construction - Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal	Reuse, recovery, recycling potential
A1	A2	A3	A4	A5	B1	B2	В3	B4	B5	B6	B7	C1	C2	С3	C4	D
х	х	х	х	х	х	х	Х	х	Х	Х	х	х	х	х	х	X

X = Declared module

MND = Undeclared module







3.3. LCA results of potential environmental impact referred to the declared unit (ACV)

Table 3. Parameters of environmental impact

	Table 3. Parameters of environmental impact Life cycle stage															
Parameter	Unit	Product stage	Constr					Use stage					End of l	ife stage		Module D
		A1-A3	A4	A5	B1	B2	В3	В4	B5	В6	В7	C1	C2	C3	C4	
Climate change - total (GWP-total)	kg CO2 eq	2,57E+01	3,22E+00	4,38E+00	0,00E+00	6,87E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,54E-01	0,00E+00	3,33E-02	-3,87E-01
Climate change - fossil (GWP-fossil)	kg CO2 eq	2,82E+01	3,22E+00	1,84E+00	0,00E+00	4,32E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,54E-01	0,00E+00	3,33E-02	-3,83E-01
Climate change - biogenic (GWP- biogenic)	kg CO2 eq	-2,54E+00	0,00E+00	2,54E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Climate change - land use and changes in land use (GWP-luluc)	kg CO2 eq	1,13E-02	7,39E-04	6,19E-04	0,00E+00	2,55E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,31E-05	0,00E+00	1,36E-06	-4,01E-03
Ozone layer depletion (ODP)	kg CFC 11 eq	8,41E-07	6,08E-08	3,05E-08	0,00E+00	5,89E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,48E-09	0,00E+00	4,93E-10	-6,79E-09
Acidification (AP)	mol H+ eq	6,94E-02	3,86E-02	6,11E-03	0,00E+00	3,70E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,00E-04	0,00E+00	3,02E-04	-2,33E-03
Eutrophication of fresh water (EP-freshwater)	kg P eq	2,33E-04	7,80E-06	2,00E-05	0,00E+00	3,23E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,96E-07	0,00E+00	1,20E-07	-6,04E-05
Eutrophication of sea water (EP-marine)	kg N eq.	1,58E-02	9,71E-03	1,53E-03	0,00E+00	2,67E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,17E-04	0,00E+00	1,37E-04	-7,88E-04
Terrestrial eutrophication (EP- terrestrial)	mol N eq.	1,71E-01	1,08E-01	1,69E-02	0,00E+00	1,14E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,31E-03	0,00E+00	1,51E-03	-7,66E-03
Photochemical ozone formation (POCP)	kg NMVOC eq	7,88E-02	3,27E-02	5,79E-03	0,00E+00	1,97E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,91E-04	0,00E+00	4,55E-04	-2,07E-03
Depletion of abiotic resources - minerals and metals (ADP- minerals&metals)	kg Sb eq	2,33E-05	1,44E-06	1,88E-06	0,00E+00	1,42E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,46E-08	0,00E+00	1,32E-09	-1,61E-06
Depletion of abiotic resources - fossil fuels (ADP-fossil)	MJ, net calorific value	4,92E+02	4,33E+01	2,11E+01	0,00E+00	4,83E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,59E+00	0,00E+00	4,28E-01	-6,19E+00
Water consumption (WDP)	m3 worldwide eq. private	7,42E+00	5,98E-02	4,08E-01	0,00E+00	1,16E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,24E-03	0,00E+00	3,87E-04	-1,54E+00
Eco-toxicity - freshwater (ETP-fw)	CTUe	5,76E+01	3,90E+00	3,16E+00	0,00E+00	1,07E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,72E-01	0,00E+00	2,01E-02	-3,10E+00
Human toxicity, cancer effect (HTP-c)	CTUh	6,85E-08	6,97E-09	2,62E-09	0,00E+00	1,80E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,37E-10	0,00E+00	7,25E-12	-1,95E-09
Human toxicity, non- cancer effects (HTP-nc)	CTUh	6,65E-08	5,88E-09	6,96E-09	0,00E+00	1,29E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,89E-10	0,00E+00	4,46E-11	-4,55E-09
The Indicador includes originally defined in EN							oxide uptake	and emissio	ons and biog	enic carbon	stored in the	product. T	his Indicado	r is thus equ	al to the GW	P Indicador
Global Warming Potential (GHG)	kg CO2 eq	2,82E+01	3,22E+00	1,84E+00	0,00E+00	4,32E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,54E-01	0,00E+00	3,33E-02	-3,83E-01

A1 Supply of raw materials. A2 Transport to waste processing. A3 Manufacturing. A4 Transport to waste processing. A5 Installation and construction processes. B1 Use. B2 Maintenance. B3

Repair. B4 Replacement. B5 Refurbishment. B6 Operational energy use. B7 Operational water use. C1 Deconstruction and demolition. C2 Transport to waste processing. C3 Waste management

 $for reuse, recovery and recycling. \ C4 Fine removal. D\ Environmental benefits and burdens beyond the system boundary. MND\ Undeclared module.$







Table 4. Parameters for the use of resources, waste and output material flows

		Tab	ne 4. Pa	ramete	rs for ti	ne use c	resou			a outpu	t mater	ial flow	S			
		Life cycle stage Product Construction								Module						
Parameter	Unit	stage		s Stage			I	Use stage		I			End of l	ife stage	I	D
		A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	С3	C4	
Use of renewable primary energy excluding renewable primary energy resources used as feedstock	MJ, net calorific value	9,34E+00	2,17E-01	1,01E+00	0,00E+00	1,07E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,35E-02	0,00E+00	2,03E-03	-2,47E+00
Use of renewable primary energy used as raw material	MJ, net calorific value	1,99E+01	0,00E+00	-1,41E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renewable primary energy (primary energy and renewable primary energy resources used as feedstock)	MJ, net calorific value	2,92E+01	2,17E-01	-1,31E+01	0,00E+00	1,07E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,35E-02	0,00E+00	2,03E-03	-2,47E+00
Non-renewable primary energy use, excluding non- renewable primary energy resources used as feedstock	MJ, net calorific value	5,35E+02	4,60E+01	2,28E+01	0,00E+00	5,53E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,82E+00	0,00E+00	4,54E-01	-6,62E+00
Use of non-renewable primary energy used as raw material	MJ, net calorific value	2,81E+00	0,00E+00	-1,91E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of non-renewable primary energy (primary energy and renewable primary energy resources used as feedstock)	MJ, net calorific value	5,37E+02	4,60E+01	2,09E+01	0,00E+00	5,53E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,82E+00	0,00E+00	4,54E-01	-6,62E+00
Use of secondary materials	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of freshwater resources	m3	1,66E-01	2,02E-03	9,71E-03	0,00E+00	2,81E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,18E-04	0,00E+00	1,48E-05	-3,91E-02
Hazardous waste removed	kg	1,82E-02	2,68E-04	5,72E-04	0,00E+00	3,97E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,42E-05	0,00E+00	2,83E-06	-4,96E-05
Non-hazardous waste eliminated	kg	5,21E+00	2,70E-02	5,77E-01	0,00E+00	4,51E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,42E-04	0,00E+00	1,22E+01	-3,15E-02
Radioactive waste disposed of	kg	9,08E-04	4,19E-06	3,12E-05	0,00E+00	7,49E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,21E-07	0,00E+00	2,62E-08	-1,10E-05
Components for reuse	kg	0,00E+00	0,00E+00	2,22E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	6,21E+00	0,00E+00	9,78E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,09E+01	0,00E+00	0,00E+00
Materials for energy recovery)	kg	0,00E+00	0,00E+00	1,16E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ by energy vector	0,00E+00	0,00E+00	8,50E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,50E-01
Exported electrical energy (AEE)	мЈ	0,00E+00	0,00E+00	2,83E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,83E-01
Exported thermal energy (EET)	МЈ	0,00E+00	0,00E+00	5,67E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,67E-01

A1 Supply of raw materials.A2 Transport to waste processing. A3 Manufacturing. A4 Transport to waste processing. A5 Installation and construction processes. B1 Use. B2 Maintenance. B3 Repair. B4 Replacement. B5 Refurbishment. B6 Operational energy use. B7 Operational water use. C1 Deconstruction and demolition. C2 Transport to waste processing. C3 Waste management for reuse, recovery and recycling. C4 Fine removal. D Environmental benefits and burdens beyond the system boundary. MND Undeclared module.







Table 5. Kg of biogenic carbon

Carbon content (biogenic) - packaging	6,92E-01
Carbon content (biogenic) - product	0,00E+00

3.4. Recommendations of this EPD

The comparison of construction products must be made using the same functional unit and at the building level, meaning that the product's performance over its entire life cycle must be considered. Environmental Product Declarations (EPDs) from different type III ecolabeling systems are not directly comparable, as the calculation rules may differ.

Construction product EPDs (DAPcons®) may not be comparable with other EPDs unless they are based on the standard EN 15804+A2:2020/AC:2021.

This declaration represents the performance of the BIa Large format porcelain stoneware, 12mm thickness (XTONE) product manufactured by PORCELANOSA.

3.5. Cut-off rules

More than 99% of all mass and energy inputs and outputs of the system have been included. The following exclusions apply:

Diffuse particle emissions to the atmosphere generated during the transport and storage of powdery raw materials.

Channeled atmospheric pollutants generated during combustion stages (spray drying, tile drying, and firing) that were not measured, as they are not covered by applicable legislation.

Auxiliary materials used in ceramic production (e.g., kiln rollers, conveyor belts, lubricating oil, etc.) have been excluded due to their negligible quantities relative to the functional unit. These materials represent less than 1% of the total input mass in the unit process and, as such, are considered "complementary materials" in accordance with UNE-EN 17160:2019, which allows for their exclusion (section 6.3.5).

Auxiliary materials used in the production of atomized powders and glazes have also not been considered, as these are upstream processes over which the manufacturer has no direct control. UNE-EN 17160:2019 allows the use of generic data or conservative estimates in such cases (section 6.3.6), and their exclusion is justified if they are marginal in terms of mass and energy or if no supplier-specific data is available.

The production of machinery and industrial equipment has also been excluded, as stated in section 6.3.5 of UNE-EN 17160:2019.







3.6. Additional environmental information

The included product does not release hazardous substances into indoor air, soil, or water during the use phase. The product does not contain any substances listed in the Candidate List of Substances of Very High Concern (SVHC) for authorisation by the European Chemicals Agency (ECHA).

3.7. Other data

Waste from the ceramic industry is classified as non-hazardous in the European List of Waste under the following codes:

LER 10 12 08: Waste ceramics, bricks, tiles and construction materials (after firing process)

LER 17 01 07: Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in code 17 01 06

4. ADDITIONAL TECHNICAL INFORMATION AND SCENARIOS

4.1. Transport to the building site (A4)

Parameter	Parameter expressed per functional unit
Type and fuel consumption, type of vehicle used for transportation	EURO VI 27-ton truck: Diesel consumption = 2.23E-05 kg diesel per kg·km Cargo ship transport: Transport, freight, sea, container ship {GLO} market for transport, freight, sea, container ship
Distance	Average based on distances considered for Spain, Europe, and the rest of the world: 778 km by road 3775 km by sea
Capacity utilization (including empty return)	85% of the road transport distance is considered applicable. 100% of the sea transport distance is considered applicable for the cargo hip.
Apparent density of transported product	2379 kg/m3
Useful capacity factor (1, <1 or >1 for products that are packed compressed or nested)	1

4.2. Installation processes (A5)

Parameter	Parameter expressed per functional unit
Auxiliary materials for construction (specifying each material)	Mortar: 3.3 kg/m ²
Water use	0.8 kg of water / m2







Parameter	Parameter expressed per functional unit
Use of other resources	Not detected
Quantitative description of the type of energy (regional mix) and consumption during the installation process	Not detected
Waste of materials in the work before the treatment of waste, generated by the installation of the product (specify by type)	Packaging waste: 5.90E-01 kg Installation losses: 0.895 kg
Material outputs (specified by type) as a result of waste treatment on the building site. For example: collection for recycling, energy recovery, disposal (specified by route)	Cardboard – energy recovery: 2.35E-02 kg Cardboard – recycling: 2.40E-01 kg Cardboard – landfill: 2.01E-02 kg Plastic – energy recovery: 2.43E-02 kg Plastic – recycling: 2.87E-02 kg Plastic – landfill: 2.41E-02 kg Pallet – energy recovery: 6.85E-02 kg Pallet – recycling: 8.24E-02 kg Pallet – recycling: 8.24E-02 kg Metal – recycling: 9.04E-04 kg Metal – landfill: 3.11E-04 kg Installation losses – recycling: 0.627 kg Installation losses – landfill: 0.269 kg
Direct emissions to air, soil and water	Not detected

4.3. Reference life (B1)

Parameter	Parameter expressed per functional unit
Reference Lifetime (RSL)	50 years
Characteristics and properties of the product	Water absorption ≤0.5%
Requirements (conditions of use, frequency of maintenance, repair, etc.)	Cleaning cycle: weekly cleaning with detergent every two weeks.

4.4. Maintenance (B2), Repair (B3), Replacement (B4), or Refurbishment (B5)

Maintenance (B2)

Parameter	Parameter expressed per functional unit				
Maintenance process, for example; cleaning agent, surfactant type	Cleaning with detergent every two weeks				
Maintenance cycle	Residential use: weekly cleaning				







Parameter	Parameter expressed per functional unit
Auxiliary materials for the maintenance process (specifying each material)	0.134 ml of detergent every two weeks and 0.1 L of water to clean 1 m ² of ceramic floor tiles once per week.
Energy inputs for the maintenance process (quantity and type of energy vector)	Not detected
Net consumption of fresh water during maintenance or repair	260 kg
Material waste during maintenance (specifying the type)	Not detected

Repair (B3)

Parameter	Parameter expressed per functional unit
Repair process	Not applicable
Proceso de inspección	Not applicable
Repair cycle	Not applicable
Auxiliary materials (specifying each material], for example lubricant	Not applicable
Interchange of parts during the product life cycle	Not applicable
Energy inputs during maintenance, type of energy, example: electricity, and quantity	Not applicable
Energy input during the repair, renovation, replacement process if applicable and relevant (quantity and type of energy vector)	Not applicable
Material waste during repair (specifying each material)	Not applicable
Consumo neto de agua dulce	Not applicable

Replacement (B4)

Parameter	Parameter expressed per functional unit
Energy input during substitution, for example for the use of cranes (quantity and energy vector)	Not applicable







Parameter	Parameter expressed per functional unit
Change of worn parts in the product life cycle (specifying each material)	Not applicable
Net freshwater consumption	Not applicable

Refurbishment (B5)

Parameter	Parameter expressed per functional unit
Rehabilitation process	Not applicable
Rehabilitation cycle	Not applicable
Energy input during rehabilitation, for example for the use of cranes (quantity and energy vector)	Not applicable
Input material for rehabilitation, including auxiliary materials (specifying by material)	Not applicable
Waste of material during rehabilitation (specifying each material)	Not applicable
Other scenario development assumptions	Not applicable

4.5. Reference life

Parameter	Parameter expressed per functional unit
Reference life	50 years
Declared properties of the product, finishes, etc.	Water absorption: Group BIa, WA ≤0.5% Reaction to fire Euroclass: A1 / A1fl Glazed or unglazed tiles. Glossy/matte finishes. Rectified/non-rectified.
Application design parameters (manufacturer's instructions)	The installation of ceramic tiles requires qualified personnel with proven experience, as well as appropriate tools and equipment.
Estimation of the quality of execution, when installed according to the manufacturer's instructions	50 years. Always check the information provided on the packaging beforehand and strictly follow the manufacturer's recommendations.
Outdoor environment for outdoor applications. For example, weather, pollutants, UV radiation, temperature, etc.	The product is suitable for outdoor installation. UNE-EN-ISO 10545-12:1997 – Frost resistance.







Parameter	Parameter expressed per functional unit
Indoor environment for indoor applications. For example, temperature, humidity, chemical exposure	The product complies with the limits established by Indoor Air Comfort GOLD®.
Terms of use. For example, frequency of use, mechanical exposure, etc.	Not applicable
Maintenance. For example, the required frequency, etc.	Cleaning - Residential use: 0.134 ml of detergent is used every two weeks, and 0.1 L of water is used to clean 1 m² of ceramic floor tiles once per week.

4.6. Operational energy use (B6) and operational water use (B7)

Parameter	Parameter expressed per functional unit
Auxiliary materials (specified by material)	Not applicable
Type of energy vector. For example, electricity, natural gas, district heating	Not applicable
Equipment output power	Not applicable
Net freshwater consumption	Not applicable
Characteristic features (energy efficiency, emissions, etc.)	Not applicable
Other scenario development assumptions. For example, transportation	Not applicable

4.7. End of life (C1-C4)

		Process			
	Collection processes (specified by types)	Recovery systems (specified by type)		Elimination	
	kg collected with mixed construction waste	kg for reuse	kg for recycling	kg for energy recovery	kg for final disposal
	33.14	0	20.89	0	12.25
Assumptions for scenario development		of residual materials is carried out using a EURO VI 20t–28t truck. o both the recycling facility and the landfill is 50 km.			uck.







5. ADDITIONAL INFORMATION

This DAPcons® has been developed following the mutual recognition process between the INIES program and the DAPconstrucción program.

- CE marking 001-DRP-20130701

The company holds the following certifications:

- UNE-EN-ISO 9001:2015 (Certificate No. ES05/1884)
- UNE-EN-ISO 14001:2015 (Certificate No. ES06/2640)
- UNE-EN-ISO 14064-1:2019 CO₂ verified Carbon footprint (Certificate No. 940-356062-02)
- Zero Waste Verification Declaration 2022 (Ref. 02/940-343288-02)
- Zero Waste Verification Declaration 2023 (Ref. 02/940-363187)
- UNE-EN-ISO 14021:2016 (Certificate No. ES13/13672)
- UNE-EN-ISO 50001:2018 (Certificate No. ES22/211029)

6. PCR AND VERIFICATION

This statement is based on Document

UNE-EN 17160:2019 Product category rules for ceramic tiles. Ceramic tile

Independent verification of the declaration and data, in accordance with ISO 14025 and IN UNE-EN 17160:2019



External

Third party Verifier

DAVID PORRAS MELENDEZ

Accredited by the administrator of the DAPcons®

Programme



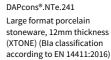
Verification date:

21/07/2025

References

- Life Cycle Analysis of the following products: AVERAGE PORCELAIN STONEWARE (BIa), AVERAGE PORCELAIN XLIGHT-XTONE 6mm (BIa), AVERAGE PORCELAIN XTONE 12mm (BIa), AVERAGE PORCELAIN XTONE 20mm (BIa), STONEWARE (BIIa), and AVERAGE WALL TILE (BIII) by PORCELANOSA. ReMa-INGENIERÍA, S.L., version 5, July 2025 (Unpublished)
- Documentation for Duty Vehicle Processes in GaBi, February 2022
- Annex C to the PEF-OEF Methods V2.1, May 2020
- Handbook of Emission Factors for Road Transport (HBEFA 4.2), 2022
- Spain Greenhouse Gas Inventory Report 1990–2020 (2022 Edition), Annex 7: CO₂ Emission Factors and Calorific Values of Fuels
- Spain Greenhouse Gas Inventory Report 1990–2021 (2023 Edition), Annex 7: CO₂ Emission Factors and Calorific Values of Fuels
- GDO/DE/001/22 Electricity Labelling 2023 CNMC. Annex II. Labelling of Remaining Electricity from Retailers











Who Have Redeemed Guarantees of Origin for Their Clients, Related to Energy Produced in 2022

- GDO/DE/001/24 Electricity Labelling 2023 CNMC. Annex II. Labelling of Remaining Electricity from Retailers Who Have Redeemed Guarantees of Origin for Their Clients, Related to Energy Produced in 2023
- Sectorial Life Cycle Assessment of Ceramic Coatings ASCER, 2018
- GENERAL INSTRUCTIONS OF THE DAPconstrucción® PROGRAM OPERATOR for Environmental Product Declarations in the Construction Sector. 5th revision: December 21, 2023
- Biogenic Carbon Content Bibliographic source: Comparative Carbon Footprint of Packaging Options, developed by thinkstep-anz

Programme Manager

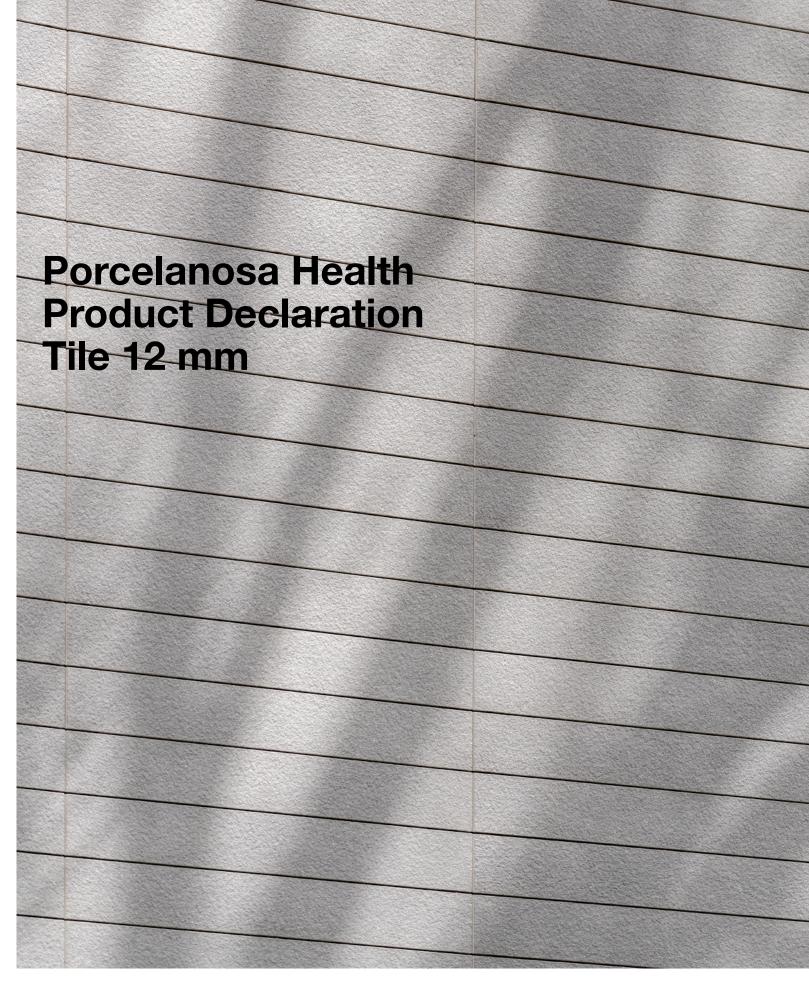
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PORCELANOSA CERAMIC TILES by PORCELANOSA, S.A.U.

Health Product Declaration v2.3

created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 31840

CLASSIFICATION: 09 30 13 Ceramic Tiling

PRODUCT DESCRIPTION: PORCELANOSA ceramic tiles includes different families of ceramic products from the Bla, Blb and BIII water absorption

group formed by pressing. The main recommended use for this products is as indoor and outdoor floor and wall coverings.



Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting

Format

Nested Materials Method

C Basic Method

Threshold Disclosed Per

Material

Product

Threshold Level

C 100 ppm ⊙ 1,000 ppm

C Per GHS SDS

Other

Residuals/Impurities Evaluation

Completed in 2 of 2 Materials

Explanation(s) provided for Residuals/Impurities?

Yes ○ No

For all contents above the threshold, the manufacturer has:

Characterized

Yes ○ No

Provided weight and role.

Screened

Yes ○ No

Provided screening results using HPDC-approved

methods.

Identified ⊙ Yes ○ No

Provided name and CAS RN or other identifier.

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.

NESTED MATERIAL | MATERIAL OR SUBSTANCE | RESIDUAL OR **IMPLIRITY**

GREENSCREEN SCORE | HAZARD TYPE

FLOOR TILES [CLAY NoGS FELDSPAR LT-UNK | MAM QUARTZ BM-1 | CAN | MAM | GEN] WALL TILES [CLAY NOGS FELDSPAR LT-UNK | MAM CALCIUM CARBONATE BM-3 | EYE QUARTZ BM-1 | CAN | MAM | GEN TALC BM-1 | CAN | MAM DOLOMITE NoGS |

Number of Greenscreen BM-4/BM3 contents ... 1

Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... BM-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This health product declaration applis to the following 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: Inherently non-emitting source" "Inherently nonemitting source per LEED®

VOC content: VOC emision declaration

Management: ISO 14001:2015 Environmental management systems

Management: ISO 9001:2015 Quality management systems

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Option 1. Pre-checked for LEED v4.1 Option 1.

Third Party Verified?

O Yes No

PREPARER: Self-Prepared

VERIFIER: VERIFICATION #: **SCREENING DATE: 2023-03-22** PUBLISHED DATE: 2023-03-22 EXPIRY DATE: 2026-03-22

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 2.3, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-3-standard

FLOOR TILES %: 100.0000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

MATERIAL TYPE: Ceramic

RESIDUALS AND IMPURITIES NOTES: Ceramic tiles scrap is reintroduced in the production process as a pre-consumer recycling content.

OTHER MATERIAL NOTES:

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-03-22 0:22:02

%: 40.0000 - 50.0000 GreenScreen: NoGS RC: None 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:

FELDSPAR ID: 68476-25-5

HAZARD DATA SOURCE:	Pharos Chemical and Materials Library	HAZARD S	CREENING DATE:	2023-03-22 0:22:02
%: 40.0000 - 50.0000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Ceramic body
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
МАМ	GHS - New Zealand		Specific target of category 1	organ toxicity - repeated exposure
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No	listings found on Additional Hazard Lists

SUBSTANCE NOTES:

QUARTZ ID: 14808-60-7

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-03-22 0:22:03

%: 5.0000 - 10.0000 GreenScreen: BM-1 RC: None 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:		

WALL TILES %: 100.0000

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Ceramic

RESIDUALS AND IMPURITIES NOTES: Ceramic tiles scrap is reintroduced in the production process as a pre-consumer recycling content.

OTHER MATERIAL NOTES:

CLAY ID: 1302-87-0

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-03-22 0:22:04

%: 45.0000 - 55.0000 GreenScreen: NoGS RC: None NANO: No SUBSTANCE ROLE: Plasticizer

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:		

FELDSPAR				ID: 68476-25-5
HAZARD DATA SOURCE:	Pharos Chemical and Materials Library	HAZARD S	CREENING DATE:	2023-03-22 0:22:04
%: 15.0000 - 20.0000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Ceramic body
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
MAM	GHS - New Zealand		Specific target of category 1	organ toxicity - repeated exposure
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No	listings found on Additional Hazard Lists
SUBSTANCE NOTES:				

CALCIUM CARBONATE				ID: 4/1-34-1
HAZARD DATA SOURCE:	Pharos Chemical and Materials Library	HAZARD SO	CREENING DATE:	2023-03-22 0:22:02
%: 10.0000 - 20.0000	GreenScreen: BM-3	RC: None	NANO: No	SUBSTANCE ROLE: Ceramic body
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
EYE	GHS - New Zealand		Eye irritation cat	tegory 2
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No	listings found on Additional Hazard Lists
SUBSTANCE NOTES:				

QUARTZ					ID: 14808-60-7
HAZARD DATA SOURCE:	Pharos Chemical and Materials Library	HAZARD SCR	EENING DATE:	2023-03-22 0:22:03	
%: 5.0000 - 10.0000	GreenScreen: BM-1	RC: None	NANO: No	SUBSTANCE ROLE: C	eramic 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:		

TALC

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-03-22 0:22:03

%: 0.1000 - 5.0000 GreenScreen: BM-1 RC: None NANO: No SUBSTANCE ROLE: Ceramic body

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
CAN	IARC	Group 2b - Possibly carcinogenic to humans
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
None found		No listings found on Additional Hazard Lists
SUBSTANCE NOTES:		

DOLOMITE				ID: 16389-88-1
HAZARD DATA SOURCE:	Pharos Chemical and Materials Library	HAZARD SO	CREENING DATE:	2023-03-22 0:22:04
%: 0.1000 - 5.0000	GreenScreen: NoGS	RC: None	NANO: No	SUBSTANCE ROLE: Ceramic body
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warı	nings found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No	listings found on Additional Hazard Lists
SUBSTANCE NOTES:				

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.

Inherently non-emitting source" "Inherently non-emitting source per LEED® **VOC EMISSIONS**

CERTIFYING PARTY: Self-declared APPLICABLE FACILITIES: N/A

CERTIFICATE URI :

CERTIFICATION AND COMPLIANCE NOTES: N/A

ISSUE DATE: 2021-10-13

CERTIFIER OR LAB: N/A **EXPIRY DATE:**

VOC CONTENT VOC emision declaration

CERTIFYING PARTY: Third Party

APPLICABLE FACILITIES: WALL TILES FLOOR TILES

AND FACADES

MANAGEMENT

series.

CERTIFICATE URL:

ISSUE DATE: 2020-06-30

EXPIRY DATE:

CERTIFIER OR LAB: EUROFINS -**VOC EMISSION TEST REPORT -**INDOOR AIR COMFORT GOLD

CERTIFICATION AND COMPLIANCE NOTES: Ceramic tiles by Porcelanosa are mineral based finish covering products without integral organicbased coatings after firing and without Volatile organic compounds emission (VOC emission). Ceramic tiles are made with inorganic raw materials through a high temperature firing process (1150 - 1220 °C). VOC EMISSION TEST REPORT. BRIEF EVALUATION OF THE RESULTS: French VOC Regulation: A+ French CMR Components: Pass Italian CAM Edilizia: Pass ABG: Pass Belgian Regulation: Pass Indoor Air Comfort: Pass Indoor Air Comfort GOLD: Pass BEEAM International: Exemplary Level LEED v4.1: Compliant

ISSUE DATE: 2022-02-04

EXPIRY DATE: 2025-02-04

MANAGEMENT ISO 14001:2015 Environmental management systems

CERTIFYING PARTY: Third Party

APPLICABLE FACILITIES: Scope PORCELANOSA:

Design, production, distribution and commercialization of

floor tiles, wall tiles and complementary ceramic pieces. CERTIFICATE URL: http://www.porcelanosa.com/

CERTIFICATION AND COMPLIANCE NOTES: Environmental Management System

ISO 9001:2015 Quality management systems

CERTIFYING PARTY: Third Party

APPLICABLE FACILITIES: Scope PORCELANOSA:

Design, production, distribution and commercialization of floor tiles, wall tiles and complementary ceramic pieces.

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

CERTIFICATION AND COMPLIANCE NOTES: Quality Management System

ISSUE DATE: 2022-02-04 CERTIFIER OR LAB: SGS

EXPIRY DATE: 2025-02-04 INTERNATIONAL CERTIFICATION

SERVICES IBERICA, S.A.U.

CERTIFIER OR LAB: SGS

SERVICES IBERICA, S.A.U.

INTERNATIONAL CERTIFICATION

RECYCLED CONTENT ISO 14021:1999 Environmental labels and declarations

CERTIFYING PARTY: Third Party

APPLICABLE FACILITIES: Self declaration of contain of recycled material. In this declaration it is established that

the contain of recycled material of the pre-consumer for

the Ecologic Series must to be over 95%.

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

CERTIFIER OR LAB: SGS ISSUE DATE: 2022-03-22

EXPIRY DATE: INTERNATIONAL CERTIFICATION

SERVICES IBERICA, S.A.U.

CERTIFIER OR LAB: SGS

SERVICES IBERICA, S.A.U.

INTERNATIONAL CERTIFICATION

CERTIFICATION AND COMPLIANCE NOTES: Environmental labels and declarations. Self declaration of contain of recycled material on Ecologic

ISSUE DATE: 2022-03-16 EXPIRY DATE: 2025-03-16

MANAGEMENT ISO 50001:2011 Energy efficiency

CERTIFYING PARTY: Third Party

APPLICABLE FACILITIES: Scope PORCELANOSA:

Design, production, distribution and commercialization of floor tiles, wall tiles and complementary ceramic pieces.

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

CERTIFICATION AND COMPLIANCE NOTES: Energy efficiency

PORCELANOSA CERAMIC TILES HPD v2.3 created via HPDC Builder Page 7 of 11

MULTI-ATTRIBUTE

Environmental Product Declaration (EPD)

CERTIFYING PARTY: Third Party

APPLICABLE FACILITIES: Porcelanosa factory. All

products. Ecolabel Type III.

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

ISSUE DATE: 2021-09-30 EXPIRY DATE: 2026-09-30 CERTIFIER OR LAB: ITEC. Institut de Tecnología de la Construcció de

Catalunya

CERTIFICATION AND COMPLIANCE NOTES: Environmental Product Declaration for floor tiles and wall tiles (in accordance with standards ISO 14025 and UNE EN 15804 + A2) Certificates number: DAPCons.nTE.005 - Wall Tiles (BIII) DAPCons.nTE.006 - Porcelain Stoneware Tiles (BIa) DAPCons.nTE.007 - Glazed Stoneware Tiles (Blb) DAPCons.nTE.008 - Porcelain Stoneware Ecologic Tiles (Bla) DAPc and ECOPLATFORM EPD Verified

LCA

ISO 14040:2006 Environmental management -- Life cycle assessment

CERTIFYING PARTY: Third Party

ISSUE DATE: 2021-09-16

CERTIFIER OR LAB: ReMa-

EXPIRY DATE:

INGENIERÍA, S.L.

Ceramic Tiles LCA

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

APPLICABLE FACILITIES: PORCELANOSA Wall and Floor

CERTIFICATION AND COMPLIANCE NOTES: The LCA has been prepared following the guidelines of UNE-EN 17160 Product category rules for ceramic tiles and meets the requirements of international standards ISO 14040:2006 and ISO 14044:2006, as well as ISO 21930, ISO 14025 and UNE -EN 15804:2012+A2:2020.



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.

No accessories are required for this product.

Section 5: General Notes

Do Not Dry Cut using Motorized Equipment due to the potential for exposure to Harmful Silica Dust. Use of a wet saw or a score & snap tool when cutting is necessary during the installation process.

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 (+1100°C).
- Low electrical conductivity.
- Low radioactive emissions.
- High hygiene standards

Within the tile manufacturing process, the tiles are fired at high temperatures of about 1100°C to 1200°C 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.

MANUFACTURER INFORMATION

MANUFACTURER: PORCELANOSA, S.A.U.

ADDRESS: CTRA N-340, Km56,200 VILA-REAL Spain 12540, Spain

WEBSITE: http://www.porcelanosa.com/

CONTACT NAME: Jorge Fabregat

TITLE: Quality and Environment Manager (Environment Specialist)

PHONE: +34964507100

EMAIL: jfabregat@porcelanosa.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

AQU Aquatic toxicity

CAN Cancer

DEV Developmental toxicity

END Endocrine activity

EYE Eye irritation/corrosivity **GEN** Gene mutation

GLO Global warming

LAN Land toxicity

MAM Mammalian/systemic/organ toxicity

MUL Multiple

NEU Neurotoxicity

NF Not found on Priority Hazard Lists

OZO Ozone depletion

PBT Persistent, bioaccumulative, and toxic

PHY Physical hazard (flammable or reactive)

REP Reproductive

RES Respiratory sensitization

SKI Skin sensitization/irritation/corrosivity

UNK Unknown

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 (due to insufficient data)

LT-P1 List Translator Possible 1 (Possible Benchmark-1)

LT-1 List Translator 1 (Likely Benchmark-1)

LT-UNK List Translator Benchmark Unknown

NoGS No GreenScreen.

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, and Best Practices for Hazard Screening on the HPDC website (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

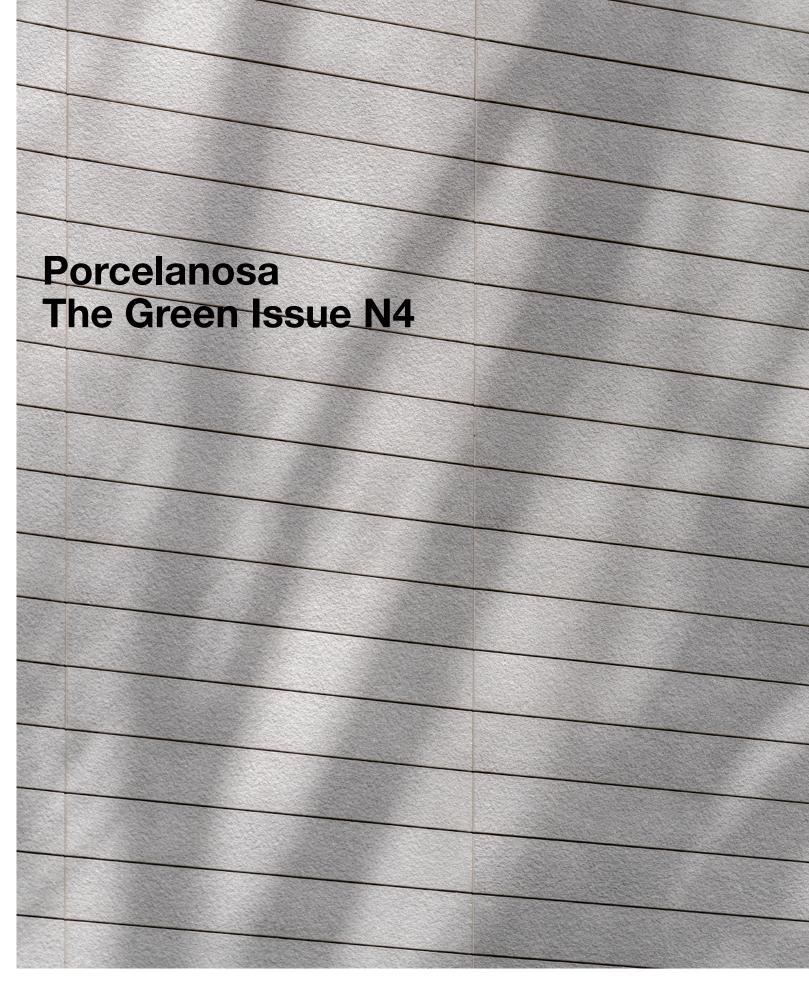
The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. 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 for compliance with the HPD standard noted.



Corporate Social Responsibility Reporting

THE CREIN ISSUE





BY APPOINTMENT TO
H.M. THE KING
MANUFACTURERS AND DISTRIBUTORS
OF CERAMIC TILES AND BUILDING PRODUCTS.

PORCELANOSA Grupo



Our commitment to an innovative and sustainable industrial model

We are pleased to present a new edition of the PORCELANOSA Group Corporate Social Responsibility Report. This document consolidates our commitment to sustainability, industrial efficiency, technological innovation and the creation of responsible values in all areas of our activities.

We continue to strengthen a business model based on the integration of environmental, social and good governance (ESG) criteria. In a global environment marked by economic uncertainty and rising energy costs, we have maintained a solid position thanks to strategic planning, constant investment and the optimisation of production processes.

This report outlines the main advances in energy efficiency, the circular economy, resource management and reducing our environmental impact, as well as our policies on safety, occupational health, continuous training and professional development for the people who make up PORCELANOSA Group (Porcelanosa, Gamadecor, Krion, L'Antic Colonial, Butech, Noken and XTONE), detailing our collaboration with the social environment and our lines of action in terms of transparency, business ethics and responsible supply chain.

We persist in our commitment to an innovative and sustainable industrial model capable of responding to new market demands and environmental challenges with high added-value construction solutions designed according to criteria of durability, recyclability and a lower ecological footprint.

We would like to thank all the teams who, from their different areas of expertise, make these achievements possible.

This report not only reflects the results achieved, but also the firm commitment of the entire business group to maintaining more sustainable, efficient, and responsible industrial development.

Corporate Social Responsibility Reporting

PORCELANOSA Grupo

PORCELANOSA Group from corporate social responsibility to corporate sustainability, a necessary evolution for a better future Respect for the environment, sustainability and the reuse of resources are key elements of PORCELANOSA Group's ecological philosophy



1	Social responsibility		2	Corporate responsibility	
1.1	Employees	17	2.1	Quality Management System	3
1.2	Health and safety at work	19	2.2	Other certifications	3
1.3	Medical and health prevention Internal medical care	21	2.3	Circular economy	4
	Health prevention programmes Collaboration with hospitals		2.4	ZERO WASTE design	4
	•		2.5	Ecodesign	4
1.4	Employee training	25			
			2.6	Environmentally friendly packaging	4
1.5	Training future workers for the industry	27		_ ,,	
1.0	Church wir allian	20	2.7	Renewable energy	4
1.6	Strategic alliances	29	2.8	Decarbonisation at Porcelanosa	5
1.7	Princess of Girona Foundation	31	2.0	Decarbonisation at 1 oreclanosa	J
			2.9	Protection of biodiversity	5
1.8	Ethical commitment in the supply chain	33		ŕ	
			2.10	Sustainable mobility	5

3	Environmental responsibility		4	Sustainable products	
3.1	Quality, energy and environmental policy	59	4.1	PORCELANOSA FOREST, the ceramic parquet with the highest	75
3.2	Environmental certifications	60		recycled content on the market	
3.3	Carbon footprint reduction	66	4.2	GAMADECOR 1. C. 1000/c. 1. 1.	77
3.4	Sustainable and responsible water management	69		Designer furniture made from 100% sustainable wood	
3.5	Promoting ecological transition	71	4.3	KRION Products that reduce environmental impact Krion Shell® sustainable sanitary ware	81
			4.4	L'ANTIC COLONIAL Natural wood, a sustainable material Linkfloor Eco Dynasty	85
			4.5	BUTECH Ventilated facades - Imperband Eco Porcelanosa Offsite Modular solutions for industrialised construction	89
			4.6	NOKEN Waterforest, greater environmental awarenes in the bathroom	93
			4.7	XTONE Environmentally friendly design	97

Social responsibility





1.1 Employees

PORCELANOSA Group has strengthened its commitment to Corporate Social Responsibility (CSR) through a comprehensive strategy that actively involves all its employees. This strategy is based on key values such as environmental sustainability, responsible innovation, commitment to the community, business ethics, equal opportunities, occupational health and safety, and continuous professional development.

These principles are translated into tangible actions that are sustained over time. PORCELANOSA Group promotes sustainable production processes through the use of recycled materials, optimisation of energy consumption and responsible water management. It also actively collaborates with nonprofit organisations, makes charitable contributions and promotes charitable campaigns.

Internally, the company is firmly committed to the professional development of its staff. To this end, it not only offers continuous training, but also analyses the training concerns of its employees and proposes actions that directly respond to their needs. Similarly, it guarantees safe working environments, promotes work-life balance and ensures fair and equitable working conditions. As part of its commitment to equality and diversity, Porcelanosa has implemented two strategic plans:

- Equality Plan for Women and Men, which goes beyond legal compliance. This plan is part of a broader vision of CSR and aims to guarantee effective equality in all its dimensions, creating a solid foundation for labour relations based on equity, respect and shared responsibility. An essential element of this plan is the internal and external communication policy, which ensures transparency towards all stakeholders and reinforces the corporate image in line with the principle of equality.
- Plan for Real and Effective Equality for LGTBI People, which aims to establish specific measures to guarantee the rights of the LGTBI community within the company. This plan seeks to prevent and eradicate any form of discrimination or mistreatment, as well as promoting the visibility and normalisation of affective-sexual and gender diversity.
- Both plans have annual follow-up reports that allow for the evaluation of the degree of implementation of the measures adopted and ensure their effectiveness over time.
- Together, these actions reflect a business model committed to people's well-being, equity and sustainability, promoting harmonious development both within the organisation and in its social environment.



1.2 Health and safety at work

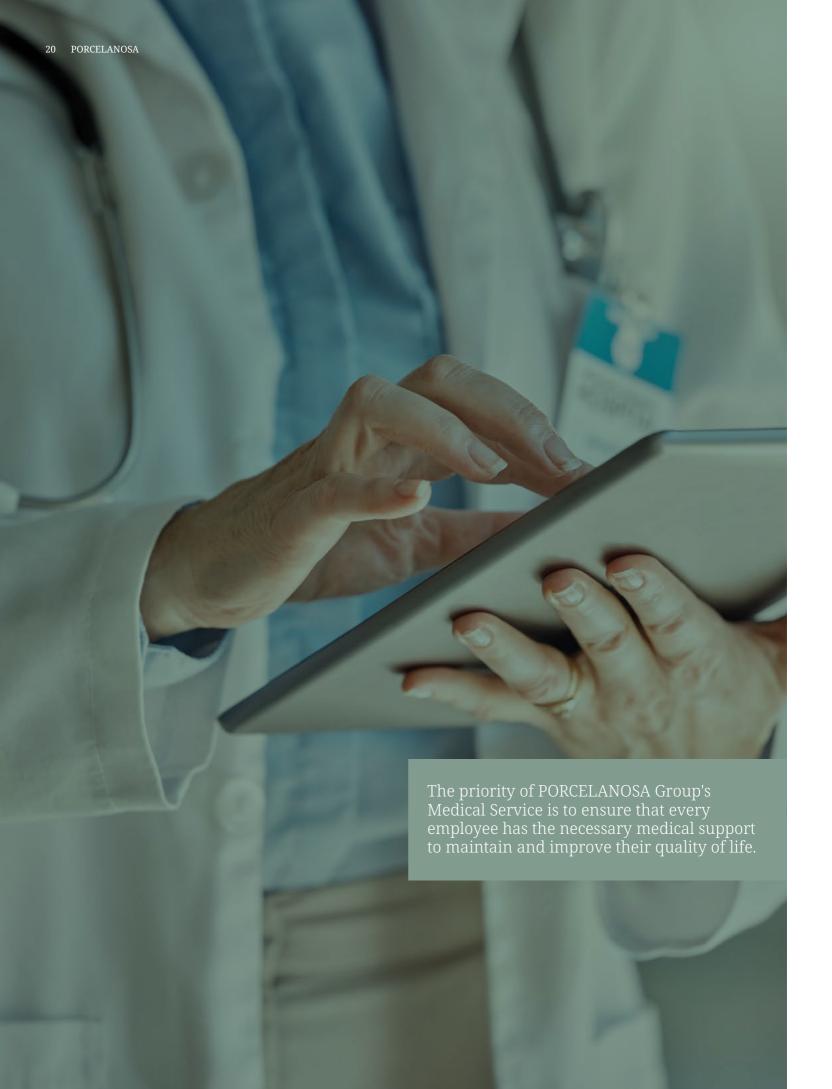
PORCELANOSA Group has a joint prevention service that provides coverage with its own resources in accordance with the Prevention Services Regulations in all companies within the business group.

Responsibility for occupational risk prevention management lies with the entire organisation, which is committed to incorporating preventive management into its daily activities. Continuous improvement in preventive action can only be achieved through information, training, consultation and participation of staff at all levels.

People are our most important asset and guarantee our future. We are committed to integrating this system into the management of the organisation so that prevention is incorporated into all activities that may have an impact on the safety, health or well-being of our employees. In this way, their health is monitored through protocols related to the activity and risk associated with their

- Maintain a high level of health and safety at work, complying with applicable legislation.

- Develop, apply and maintain a Prevention Management model aimed at the Continuous Improvement of Working Conditions, keeping the Prevention Plans for all our activities up to date.
- Involving our suppliers, contractors and subcontractors in an active commitment to improving working conditions.
- Carrying out systematic audits to verify compliance with and the effectiveness of preventive management.



1.3 Medical and health prevention

Commitment to health, well-being and safety

Internal medical care

As part of PORCELANOSA Group's commitment to the health, well-being and safety of its employees, the company has developed a comprehensive internal medical care system, integrated directly into its facilities. This service is an essential part of its Corporate Social Responsibility (CSR) policy, guaranteeing an immediate, effective and personalised healthcare response throughout the working day.

At its industrial complex and headquarters in Vila-real, PORCELANOSA Group has its own fully equipped medical clinics, which provide primary care as well as preventive and follow-up services. These spaces are designed to offer a safe, friendly and functional healthcare environment that facilitates early intervention in any situation that affects the physical or mental health of employees.

The healthcare team is made up of its own medical staff: three doctors specialising in occupational medicine, three nurses specialising in occupational nursing, and other healthcare professionals with extensive experience in the workplace. Their approach combines healthcare, prevention and health promotion in the workplace through the following functions:

- Daily medical care: primary care medicine, focused on treating common illnesses. We also offer assistance to workers who come to us from their homes
- Monitoring of chronic illnesses, treatment, requesting tests, issuing electronic prescriptions through the "Abucasis" programme in connection and collaboration with the public health service.
- Assistance with work-related illnesses, with referral to the occupational accident insurance company if necessary.
- Health monitoring and promotion: periodic medical examinations, initial examinations and examinations upon return from temporary disability.
- Health campaigns: coordination of specific preventive campaigns in collaboration with specialised external clinics, if deemed necessary to complete the study.

This internal medical assistance model, consolidated over the years, reinforces PORCELANOSA Group's commitment to its employees, promoting a safe, healthy and humane working environment. It also actively contributes to the sustainability of the public health system by reducing unnecessary referrals, encouraging self-management of health and improving the balance between personal well-being and professional activity.

Health prevention programmes

The PORCELANOSA Group Medical Service carries out various prevention and health promotion campaigns, with the main objective of promoting the early detection of diseases that have a high impact on the working population. This contributes to early diagnosis and a better clinical prognosis.

These campaigns are integrated into the annual occupational health check-up, optimising health monitoring resources and bringing preventive medicine closer to the workplace. The main lines of action include:

Early detection campaign for ocular hypertension (glaucoma prevention).

Examination and tonometry, aimed at identifying risk factors and IOP (intraocular pressure) values that may suggest the presence of ocular hypertension in the early stages of the disease. If the criteria are met, the patient is referred to a specialist for further follow-up.

Prostate cancer prevention campaign.

Aimed at male workers over the age of 45. Includes PSA (prostate-specific antigen) assessment, medical interview and visit to a urology specialist, with ultrasound and flowmetry. If the referral criteria are met, the patient is referred to a specialist with subsequent follow-up, according to the agreed frequency.

Hypertensive patient monitoring and control campaign.

Regular blood pressure checks during occupational health examinations and provision of ABPM (ambulatory blood pressure monitoring) devices for home use. Reinforcement of therapeutic adherence and health education on hearthealthy lifestyle habits.

Colorectal cancer screening campaign.

Aimed at the target population, according to age or family history criteria, by means of faecal occult blood tests (FOBT). If positive, referral to a specialist for evaluation by colonoscopy.

Melanoma (skin cancer) prevention and awareness campaign.

Education on sun protection, identification of risk factors and basic dermatological examination during check-ups. If a suspicious lesion is detected, referral to a dermatologist for assessment and excision or biopsy, if necessary. If removed/biopsied, the sample is sent to the pathology laboratory.

Smoking cessation campaign.

Identification of susceptible workers in the RML and/or active recruitment. The programme is aimed at all employees, with a special focus on those at risk of exposure to silica dust in their workplace. Offer of a preliminary course run by the AECC (Spanish Association Against Cancer). Medical treatment is funded by the Social Security, prescribed by the medical service and followed up to ensure compliance.

These actions reinforce PORCELANOSA Group's commitment to the comprehensive health of its employees, promoting a culture of active prevention and well-being in the workplace.

Collaboration with hospitals

The PORCELANOSA Group Medical Service is firmly committed to the health and well-being of all our employees. In line with this commitment, we have established a network of collaboration with leading specialists in hospitals in the provinces of Castellón and Valencia, with the aim of providing quick, local and high-quality access to specialised medical care.

Thanks to these agreements, the organisation's employees can benefit from comprehensive medical care in various clinical areas:

Ophthalmology clinics in Vila-real and Castellón, offering both emergency care and chronic follow-up for eye conditions.

Dermatology. Agreements are in place with clinics in Vila-real and Castellón for the treatment and follow-up of skin conditions, as well as surgery.

Gynaecology in Castellón and Burriana, covering regular check-ups, gynaecological monitoring and reproductive health.

Clinics specialising in **urology** located in Castellón and Valencia.

Rheumatology in Castellón and Vila-real, focusing on musculoskeletal and autoimmune diseases.

General surgery, with different specialists visiting and operating at the Vithas Castellón Hospital.

Specialist allergist, with a consultation at the Vithas Castellón Hospital.

Stomatology in Vila-real, specialising in oral health and oral cavity disorders.

Orthopaedic surgery and traumatology in Castellón and Valencia. We work in collaboration with doctors specialising in the spine, knee, shoulder and hand. Rehabilitation treatment.

Cardiology at the Clínica Mayor San Jaime and the Vithas Castellón Hospital, offering diagnostic tests and monitoring of cardiovascular diseases.

Specialists in Otorhinolaryngology (ENT) in Burriana and Castellón, covering ear, nose and throat conditions.

Angiology and Vascular Surgery, doctor with a consultation at the Vithas Castellón Hospital, specialising in the diagnosis and conservative or surgical treatment of vascular pathologies.

Podiatry in Vila-real, for comprehensive foot care and injury prevention.

Digestive System, with a specialist doctor with a practice at the Vithas Castellón Hospital, offering diagnostic and treatment services for digestive diseases.

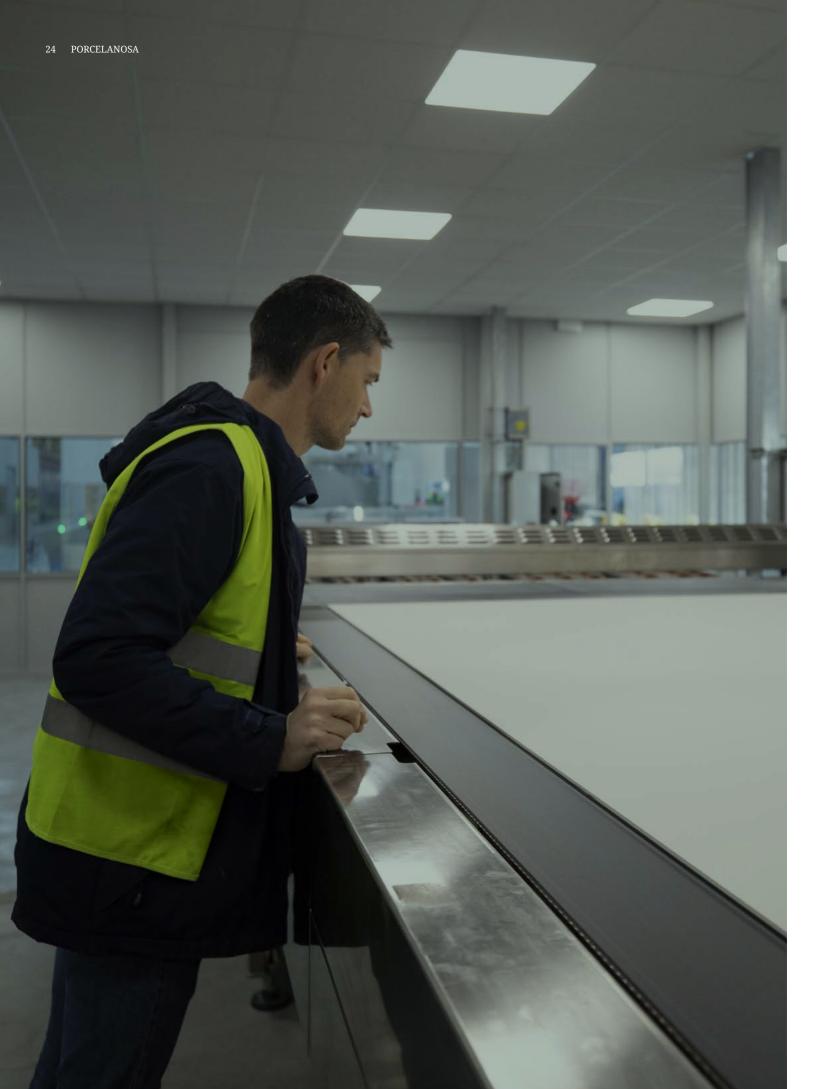
Specialised surgery, such as Head and Neck Surgery and Breast Pathology at the 9 de Octubre Hospital (Valencia), for cases requiring highly complex surgical care.

Clinical analysis laboratories in

Vila-real and Castellón. Diagnostic tests or further studies requiring blood, urine or stool analysis, intolerance tests, hormone studies, etc. can be requested.

Radiodiagnostic centres in Castellón and Vila-real.

This collaborative network guarantees a more comprehensive, personalised and effective healthcare service, in line with the values of excellence and care that characterise PORCELANOSA Group. The priority of PORCELANOSA Group's Medical Service is to ensure that every employee has the necessary medical support to maintain and improve their quality of life.



1.4 Employee training

Continuous training as a driver of professional development

PORCELANOSA Group places training at the heart of its talent development strategy. Its Training Department draws up an Annual Plan based on the needs identified by the various area managers. This is complemented by dynamic training initiatives in response to new regulatory, technological or strategic challenges.

In 2024, more than 15 900 hours of training were provided in its various companies, including engineering, production, administration and management profiles. This training ranges from technical content to crosscutting skills adapted to each professional level.

Among the priority actions is initial training for new recruits. These programmes include key content on products, processes, occupational risk prevention, compliance, equality and corporate culture.

In addition, regular technical seminars are organised on sustainability and new products, aimed at both office and plant staff, ensuring that they are continuously updated on strategic and operational aspects of the company.

The digital environment plays a particularly important role through the Porcelanosa Campus, an internal platform that has strengthened its role as a key tool for training the sales and technical teams in markets such as Spain, the United States, the United Kingdom, France, Italy, Germany and Portugal. The training is structured in various formats:

- Compulsory training (harassment prevention, LGTBI regulations, sustainability, ethics and diversity).
- Training capsules and routes by professional profile.
- Synchronous virtual classrooms with experts from the group.
- Content generated by the various product and sales departments, produced by the training team using authoring tools and integrated into the itineraries for the different job positions.

As part of its commitment to digital development, the company has incorporated a specialised learning solution that provides access to an extensive repertoire of resources in artificial intelligence, automation, software development and productivity. This tool is aimed at technical profiles in the data and systems area, promoting autonomous and scalable learning.

In addition, personalised career plans have been established, aligned with the business group's skills map, which allow professionals to evolve according to their interests and performance.

All training activities are evaluated after completion through satisfaction surveys and monitoring mechanisms that allow the real impact on the job to be analysed.

The commitment to accessible and diverse training ensures that all profiles, regardless of their location or role, have access to resources that strengthen both their technical skills and their ethical and environmental values.



1.5 Training future workers for the industry Link between industry and education for the talent of tomorrow

PORCELANOSA promotes young talent through multiple lines of collaboration with the education system. Of particular note is the PORCELANOSA-UJI University Classroom for Talent and Excellence, a joint initiative with the Jaume I University that aims to strengthen ties with the provincial education system and bring the ceramic sector closer to specific training at all levels.

The Classroom is aimed at master's students (such as the Master's in Ceramic Technology), university degrees (chemistry, chemical engineering, industrial engineering, electrical engineering, advertising and public relations, journalism, audiovisual communication, double degree in ADEM/law, etc.), vocational training (laboratory technicians, quality control), and also to high school and secondary school students, through outreach activities such as the Vilaciència Fair.

During the 2024/2025 academic year, different strategies have been developed to consolidate this educational approach:

- Scholarships for the completion of final degree projects, aimed at students of Chemical Engineering and Chemistry.
- Awards for the best final degree project in chemical engineering and chemistry, and master's theses related to the ceramics sector.

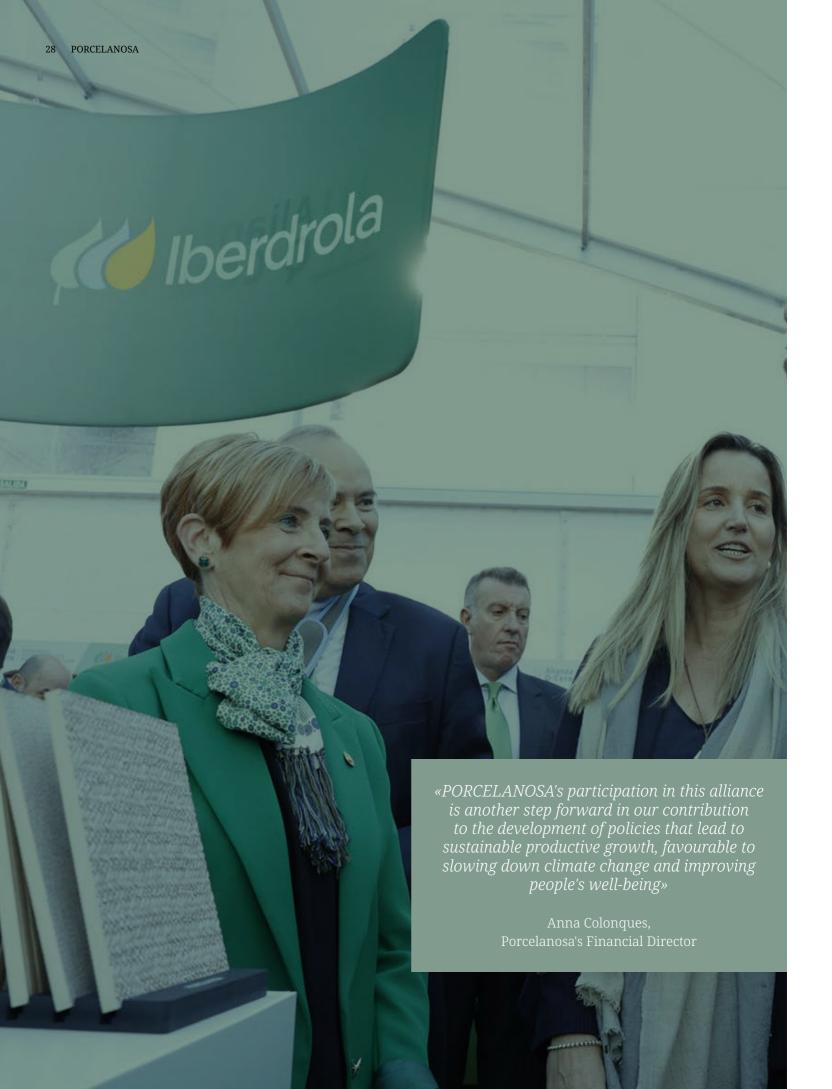
- Educational talks, specialised conferences and masterclasses, both at the UJI and in secondary schools.
- Seminars on trends, with round tables on branding, the circular economy and the global market.
- Technical visits to PORCELANOSA Group industrial facilities.
- Training stays and internship programmes for students at different educational levels.
- Collaboration with the Vilaciència 2025 Fair in the presentation of two awards for projects developed by secondary school students: the Special Ceramics Award for the best ceramics project, together with a theoreticalpractical class at our facilities, and the Vilaciència Main Award in the FQMAT category.
- Technical and product photography competition, with two categories: industrial production (focusing on processes and workflows) and showroom (focusing on the final product and its application in real environments).
- Journalistic reporting competition, aimed at journalism students, whose winning entry will be published in PORCELANOSA's Lifestyle magazine.

In addition, the company actively participates in science fairs, career guidance events and educational weeks, promoting awareness of career opportunities in the ceramic industry.

Strategic agreements are in place with universities, institutes and vocational training centres, enabling a real transfer of knowledge between the company and the educational environment in the province. Interns also benefit from an individualised mentoring system, which facilitates their integration into real work teams and learning within high-level industrial environments.

These actions are part of a broader commitment to local employment and regional development, encouraging young talent to stay in the local area and strengthening the sustainability of the ceramic industry.

Through these initiatives, PORCELANOSA consolidates its role as a driving force for technical education connected to the challenges of the 21st century and as a motor for employability in the province and the sector.



1.7 Strategic alliances

PORCELANOSA has been part of the Q-ZERO Alliance for industrial decarbonisation since its creation in January 2024.

The Q-Zero Alliance is an open, multistakeholder alliance created with the aim of promoting the decarbonisation of thermal energy demand in Spain, helping to keep it on a path compatible with the Paris Agreement's goal of limiting global warming to 1.5°C.

In this regard, the Q-Zero Alliance aims to be the necessary meeting point and forum for dialogue to understand the main challenges, showcase achievements and identify ways and solutions to move forward more quickly, while maintaining the economic competitiveness of the various sectors and helping to realise the opportunities arising from the transition.

The Q-Zero Alliance was created within the framework of the Iberdrola-UPM Chair for Sustainable Development Goals. Since its launch, the Alliance has been coordinated by Iberdrola, which acts as the promoter of the initiative, by the Centre for Innovation in Technology for Human Development at the Polytechnic University of Madrid (itdUPM), which acts as facilitator, and by Tecnalia, which leads the technical advisory work in the field of decarbonisation.

Iberdrola promotes Q – Zero, the alliance for the decarbonisation of thermal demand in Spain. The initiative, open to all stakeholders, was created as a meeting point and forum for dialogue to accelerate the decarbonisation of thermal demand in industry and construction in order to reduce CO_2 emissions and combat climate change.

Thermal energy demand accounts for approximately 40% of final energy demand in Spain.

The creation of this new alliance is part of the European Union's fight against climate change and its goal of reducing greenhouse gas emissions in all member countries by at least 55% by 2030. PORCELANOSA is a member of the Renewable Hydrogen Strategy of the Valencian Community (AH2RCV) since early 2024 and in 2025 it joined the Spanish Hydrogen Valleys Alliance, an alliance created with the aim of promoting all actors involved in the development of hydrogen technologies necessary to achieve climate neutrality and decarbonisation objectives.





1.8 Princess of Girona Foundation

Through this collaboration, Porcelanosa Group will contribute to the important work carried out by this organisation in the professional and personal development of new generations in Spain. This entry coincides with the 15th anniversary of the institution. PORCELANOSA Group has joined the Princess of Girona Foundation as a new patron. The main objective of this organisation is to promote the development of young people and facilitate their integration into society for the benefit of all.

PORCELANOSA Group joins the more than 80 companies that make up the Foundation's Board of Trustees, whose purpose is to provide solutions to the problems faced by young people. This initiative will strengthen the link between the company and the Royal Family, which began last September with the visit of His Majesty Felipe VI to the business group's headquarters.

The Princess of Girona Foundation was created fifteen years ago with the main objective of promoting the professional, vocational and educational development of young talent. The organisation has numerous programmes and scholarships that serve to improve opportunities for young people and maximise their potential. These actions enable new generations to face a constantly changing world where globalisation and new technologies determine the major challenges of the present and the future. Among these initiatives are the Princess of Girona Awards, now in their fifteenth year, and the Talent Tour, which in 2024 has stopped in Lleida, Salamanca, Cadiz, Santander and Madrid. The organisation is presided over by HRH Leonor de Borbón y Ortiz and is governed by a board of trustees comprising more than 80 companies and individuals.



Type of section	Points available	Points achieved	% of points achieved	Score
Profile			83.3%	4.2 (Advanced)
Workplace impact			100%	5.0 (Advanced)
Management system		26	96.3%	4.8 (Advanced)
Freely chosen employment	23	19	82.6%	4.2 (Advanced)
Freedom of association			100%	5.0 (Advanced)
Health and safety	98	87	88.8%	4.5 (Advanced)
Child and youth workers	10	10	100%	5.0 (Advanced)
Wages		25	92.6%	4.7 (Advanced)
Working hours		15	88.2%	4.4 (Advanced)
Discrimination	41	41	100%	5.0 (Advanced)
Regular employment	15		86.7%	4.4 (Advanced)
Discipline and grievances	29	29	100%	5.0 (Advanced)
Environment	47	39	83%	4.2 (Advanced)
Business ethics			77.8%	5.0 (Good)

1.9 Ethical commitment in the supply chain SMETA (Sedex Members Ethical Trade Audit) is a standard developed by SEDEX, one of the world's leading platforms for the exchange of ethical information in supply chains

PORCELANOSA GROUP maintains a firm commitment to ethics and integrity at all levels of its organisational structure. In line with its objective of promoting a responsible corporate culture, the company has implemented a series of internal mechanisms aimed at ensuring respect for fundamental ethical principles.

The main tools established include:

- Code of Conduct: a document that sets out the values and standards that should guide the behaviour of all company employees.
- Catalogue of Prohibited Conduct: a guide that clearly identifies unacceptable actions within the organisation.
- Organisation and Management Model for the Prevention of Crime: a set of controls and protocols designed to prevent the commission of illegal acts in the business environment.
- Internal Information System: a confidential and secure channel for reporting any irregularities or breaches observed.

- Whistleblower Protection System:

 a mechanism that guarantees
 confidentiality and protection against
 retaliation for those who report
 possible infringements.
- Harassment Prevention and Response Protocols: specific regulations that expressly prohibit any form of harassment, including those motivated by sexual orientation, gender identity or expression, reaffirming the company's commitment to a discrimination-free environment.

The purpose of these actions is to assess and improve key aspects such as:

- Working conditions: ensuring fair wages and a safe working environment.
- Respect for human rights: preventing and mitigating risks such as child or forced labour.
- Environmental impact: complying with current regulations and promoting responsible resource management.
- Business ethics: combating corruption, bribery and malpractice.

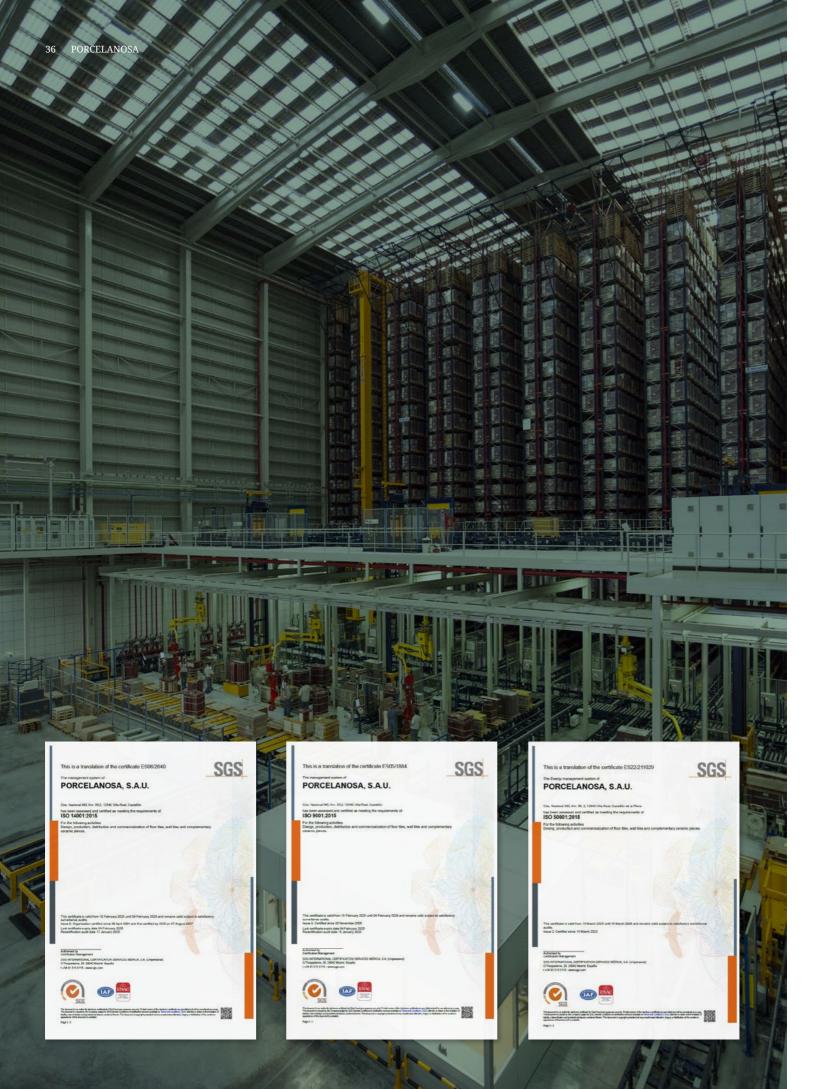
SMETA is a social and ethical auditing methodology that comprehensively assesses corporate responsibility practices. It is currently the most widely implemented social audit worldwide. Its design allows organisations to analyse working conditions in their supply chain, promoting Corporate Social Responsibility (CSR) and ensuring compliance with high ethical and sustainable standards.

The fundamental purpose of SMETA is to verify that both companies and their suppliers operate under ethical principles, with full respect for human rights and with a focus on minimising their environmental impact.

In the case of PORCELANOSA, the SMETA audit demonstrated its firm commitment to ethics throughout its supply chain. The company obtained an outstanding rating of 93 out of 100 (4.6/5), positioning Porcelanosa at an advanced level in terms of control and responsible management.

Corporate responsibility





2.1 Quality Management System

PORCELANOSA has an integrated quality, environmental and energy management system certified by an independent body in accordance with international standards ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018.

This system, which has been constantly evolving since its initial implementation in 1998, reflects the Spanish multinational's ongoing commitment to environmental improvement and energy efficiency. In 2004, PORCELANOSA certified its environmental system and in 2013 its energy management system.

Third-party certified management systems enable Porcelanosa to identify and assess risks and opportunities, significant environmental and energy aspects and impacts, and establish actions and measures to control, measure, minimise or mitigate these risks and the impacts of its industrial activity.

PORCELANOSA's integrated management policy establishes the basic guidelines for the company's quality, environmental and energy management.

It defines the guidelines to be followed in the areas of quality, energy and environmental management and makes an explicit commitment to carry out the following actions:

 Protect the environment and the natural surroundings by adopting measures to contain, prevent and minimise the pollution produced as a result of the organisation's industrial activity.

- Reduce atmospheric emissions (direct and indirect), promote strategies aimed at reducing, reusing, recycling and recovering waste generated, and implement initiatives to reduce water consumption.
- Promote the adoption of strategies and actions focused on a management model aligned with the circular economy, as opposed to traditional linear economy models.

2.2 Other certifications

PORCELANOSA has various certifications that guarantee the quality and compliance of construction systems and products according to different international standards.





The QB UPEC/WallPEC certification is recognised for promoting the performance of ceramic tiles for floor coverings (QB32) and wall coverings (QB50).

In 2021, QB32 gave rise to QB50 to certify the use of ceramic tiles on walls. OB UPEC/WallPEC is aimed at all interested parties, ensuring a quality approach in projects and works that incorporate ceramic tiles. These tiles have technical characteristics that have been validated by an external body: the French CSTB (Scientific and Technical Centre for Building).

The UPEC/WallPEC classification allows us to:

- Identify the floor and/or wall coverings best suited to the needs of users and the constraints of the premises;

- Guarantee the durability of the characteristics in use;
- Differentiate between two products of identical appearance, through an objective, clear and transparent choice.

This certification is a voluntary process, carried out by an independent body, whose objectives are to award the different UPEC classifications, UPECD+, UPECF+ and WallPEC, provide objective evidence based on audits that products comply with the requirements of standards QB 32/QB50, certify that the requirements of European standards are exceeded, provide benchmarks for the continued reliability of product quality and validate suitability for use on floors, walls or terraces, among other places.



ICC-ES is a North American programme for technical evaluations of construction products, components, methods and materials that culminates in the issuance of technical reports that directly address the issue of regulatory compliance and are extremely useful for both regulatory agencies and manufacturers of construction products.

Agencies use evaluation reports to help determine compliance with standards and enforce regulations in the construction industry; material manufacturers use reports and certificates as evidence that our products (and this is especially important if the products are new and innovative) meet established requirements and justify regulatory approval when necessary.



ICC-ES evaluation reports are public documents, available free of charge on the worldwide web, not only to regulators and building manufacturers, but also to contractors, specifiers, architects, engineers, and anyone else with an interest in the construction industry.

PORCELANOSA has ES-ICC certification for the BUTECH® ventilated façade system using porcelain stoneware panels (ESR-3343).

Since 1966, BBA (British Board of Agreement) has established itself as the independent certification body in the construction and civil engineering sectors in the United Kingdom.

As with ICC-ES in North America, PORCELANOSA, through Butech, certifies the conformity of its ventilated façade system with porcelain stoneware panels through the certificate of compliance issued by BBA.

2.3 Circular economy

Our commitment to sustainability and circularity.

In the current context, characterised by growing awareness of sustainability and heightened geopolitical uncertainty, PORCELANOSA is firmly committed to adopting a sustainable and circular production strategy. This strategy is based on several essential pillars that seek to minimise environmental impact and promote efficient use of resources.

We have implemented advanced technologies that allow us to significantly optimise the use of resources such as energy and water without compromising the quality of our products. The optimisation of production processes and the reuse of water in the production cycle are concrete examples of the organisation's initiatives in this area.

PORCELANOSA is firmly committed to the challenge of decarbonising our thermal processes, which have traditionally been dependent on fossil fuels. To this end, we are investing in research and development of cleaner and more efficient technologies, as well as adopting practices that reduce our carbon emissions. This commitment to decarbonisation is essential to meeting global greenhouse gas reduction targets.

Another crucial component of the strategy is increasing investment in and commissioning renewable energy sources, such as solar photovoltaic energy. The installation of solar panels at our facilities is not only enabling us to reduce our dependence on non-renewable energy sources, but also contributing to the economic and environmental sustainability of our operations.

Finally, we are transitioning towards a production model aligned with circularity. This involves the progressive and increasingly large-scale reintroduction of waste generated in our own production process, transforming it into raw materials for new tiles. In this way, we are closing the production cycle and promoting a circular economy model based on the ZERO WASTE concept.

A circular economy model

For years, Porcelanosa has been actively working on the development and improvement of its global sustainability plan. This plan encompasses many of its green measures (eco-design, recycling of raw materials and waste, reuse of industrial water, energy self-consumption and shared use of tools and management systems).

The aim is to move from the current linear economic model to a circular economy through green innovation. PORCELANOSA Group is firmly committed to developing new products through the reuse of materials and the use of clean energy.

Thanks to this and other measures, the organisation has significantly reduced its CO_2 emissions in recent years.

This has been made possible by efficient resource management and continuous improvement in product performance, which extends their useful life and reduces their environmental impact.

In 2024, more than 99% of the waste generated at its facilities was reused, recycled or recovered in other processes, both within and outside PORCELANOSA.

The manufacture and distribution of products bearing the Porcelanosa seal are based on a strategy founded on the principles of the circular economy, focusing on the efficient use of energy from renewable sources and the recovery of waste generated.

Proof of this is the 'Zero Waste' certification awarded by the certifying body SGS since 2019.

This seal confirms that more than 90% of the waste generated at Porcelanosa's facilities undergoes further management involving recycling, reuse or recovery in this or other industrial processes, thereby minimising landfill disposal and environmental pollution.

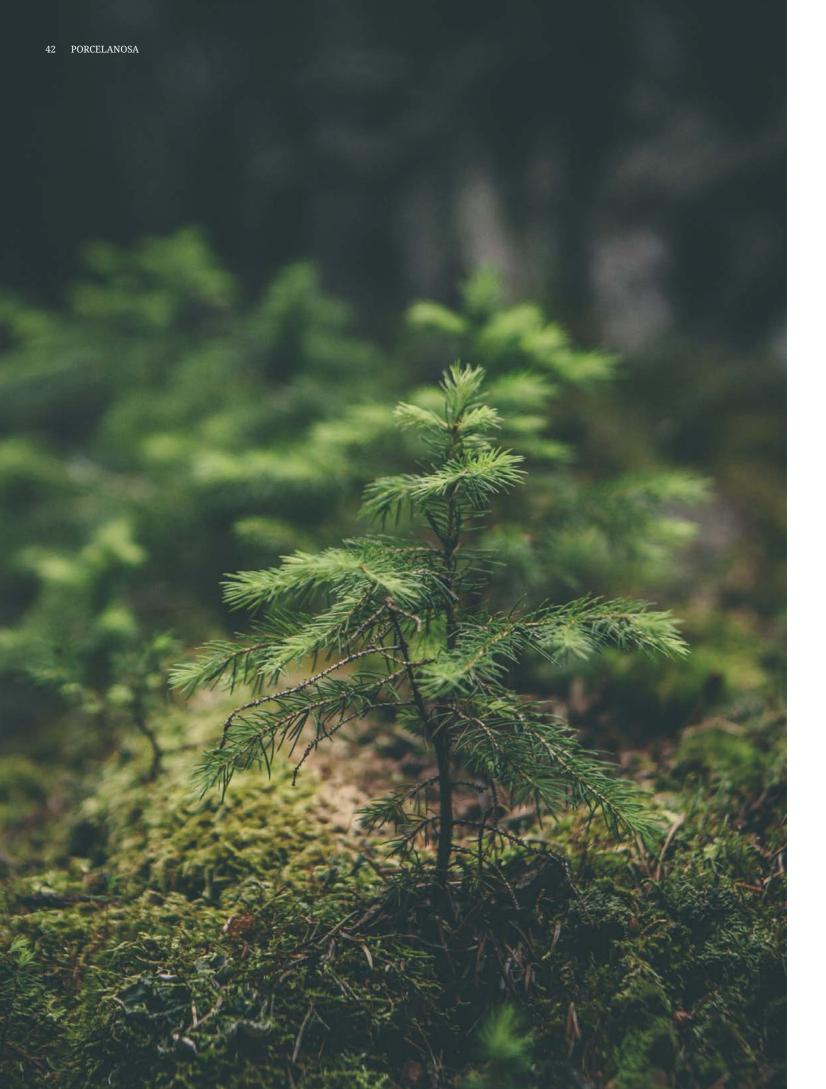
In our case, the reintroduction and reuse of waste in industrial processes dates back to 2007, when the first porcelain stoneware tiles in the ECOLOGIC series were launched with a pre-consumer recycled content of over 95% by mass.

In the support of the tiles in the ECOLOGIC series, 100% of the materials used for their formation come from the recycling of waste generated in the manufacturing process itself.

This ceramic product line has its own **Environmental Product Declaration** or Type III eco-label, which allows its global warming potential (GWP) to be quantified in terms of CO2eq emissions per m² and compared with that of 1 m² of conventionally manufactured porcelain stoneware.

According to the EPDs/EPDs developed, ECOLOGIC tiles have a GWP 17% lower than those of porcelain stoneware manufactured conventionally by us.





2.4 ZERO WASTE design

Commitment to the production model.

Since the beginning of its industrial activity, PORCELANOSA has adopted a firm commitment to production based on the concept of ZERO WASTE. This approach seeks to minimise its environmental impact and optimise the use of resources throughout all stages of the production process.

One of the fundamental pillars of its ZERO WASTE strategy is the introduction of recycled materials from various stages of the manufacturing process. We have implemented advanced waste segregation systems that allow us to reincorporate these materials into the production of new ceramic pieces.

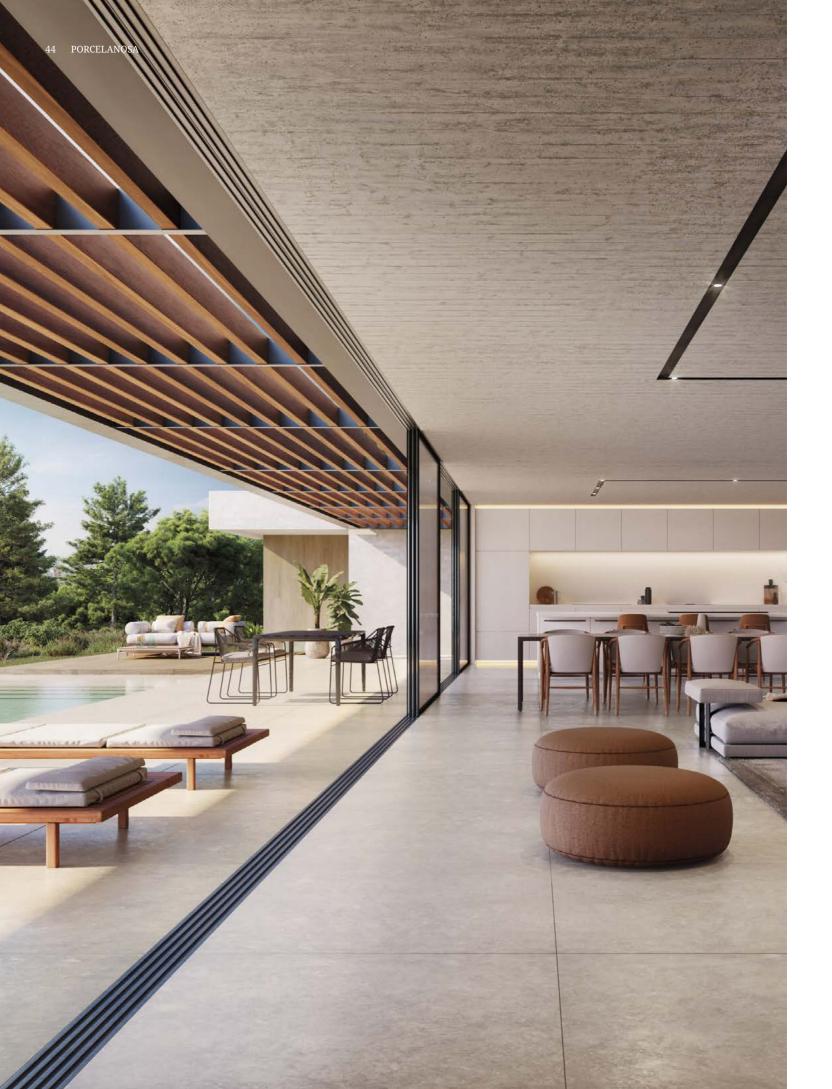
This reuse cycle not only reduces the need for virgin raw materials, but also significantly decreases the amount of waste generated.

Furthermore, PORCELANOSA has been incorporating innovative practices for the purification and reuse of the water needed to carry out the different manufacturing processes for years, with the aim of minimising consumption and achieving zero discharge.

This translates into the operations carried out by the various wastewater treatment plants, using state-of-the-art purification and treatment technologies. These plants allow us to recover and reuse water in our production processes, ensuring the efficient and sustainable use of this vital resource.

Our commitment to the ZERO WASTE model is also reflected in our investment in clean technologies and the optimisation of our industrial processes. The implementation of digital systems for real-time monitoring and control of waste and water allows us to identify and correct inefficiencies, ensuring cleaner and more efficient production.

PORCELANOSA has not only adopted the ZERO WASTE model as a philosophy, but has also integrated it technically and strategically into its business model. This advanced approach reaffirms our commitment to sustainability and efficiency, contributing to a cleaner and more responsible future.



2.5 Ecodesign

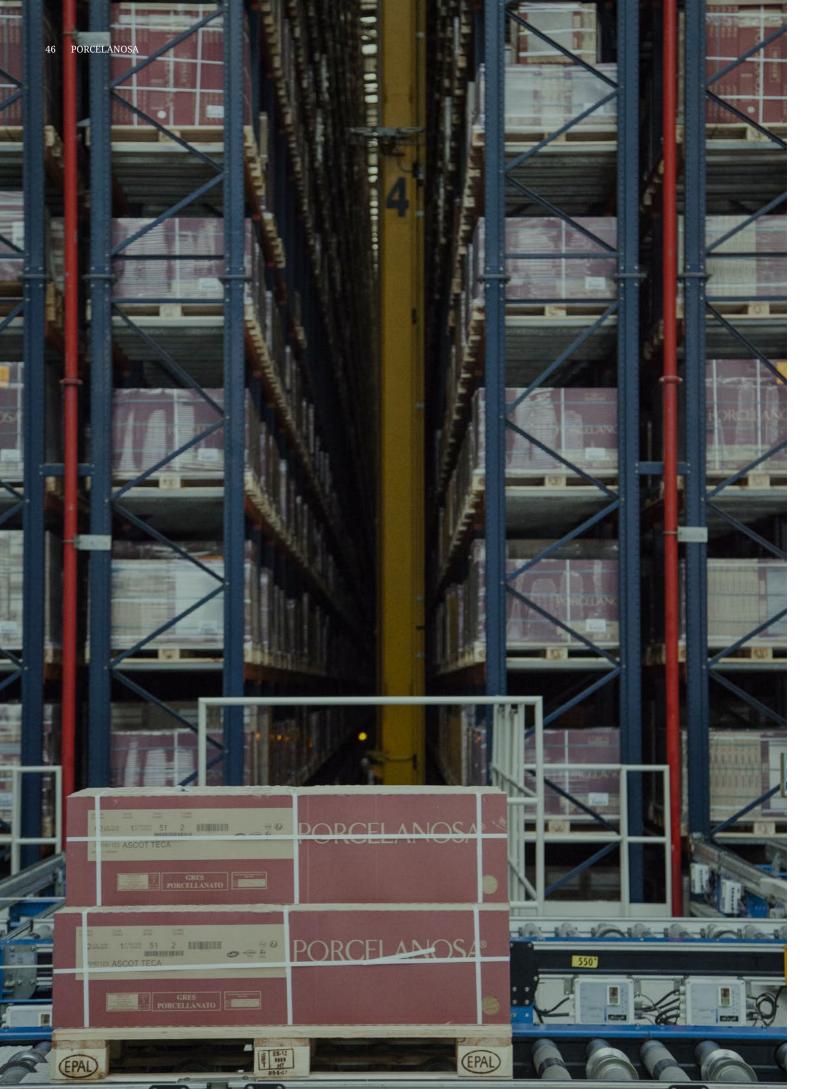
Reduction as a strategic focus for sustainability.

PORCELANOSA, in its transition towards more sustainable production models, incorporates ecodesign as a key tool in obtaining products with a lower impact and greater added value.

This approach integrates environmental criteria from the product design stage, with the aim of minimising its impact throughout its entire life cycle, without compromising its functionality or aesthetic value.

One of the fundamental principles of eco-design is reduction, understood as the optimisation of material, energy and logistical resources. In its manufacturing plants, this principle translates into concrete actions:

- Progressive reduction in the thickness of ceramic pieces. This means lower consumption of raw materials (clays, feldspars, additives) and a reduction in weight per square metre, with direct benefits in terms of transport and handling.
- Optimisation of formulations and thermal processes. By adjusting firing curves and using high-energy-efficiency kilns, natural gas consumption and associated CO2 emissions are reduced.
- Minimisation of solid waste and liquid effluents. Through slip recirculation systems, process water recovery and the valorisation of by-products.
- Redesign of packaging. By eliminating non-recyclable components and reducing the volume of protective materials, recyclability is improved and the environmental footprint of the final product is reduced.



2.6 Environmentally friendly packaging

PORCELANOSA considers it vitally important to minimise the impact of the use of packaging and protective packaging for its products. The incorporation of cardboard packaging with a high recycled content and 100% recyclable minimises the environmental impact at the end of its useful life.

In addition to being a less polluting alternative to other types of packaging, the cardboard packaging used at PORCELANOSA is also suitable for securing the product and does not contain any dangerous inks or chemicals. Load securing and protection elements, such as strapping and corner protectors, are recyclable. Load units, such as wooden pallets, are reusable and FSC™ Chain of Custody certified. This certification guarantees sustainable forest management with responsible economic, social and environmental practices.

2.7 Renewable energy Photovoltaic self-consumption

As part of the transition towards more sustainable and efficient production, PORCELANOSA has developed an ambitious strategy to electrify its manufacturing processes. This mediumterm plan aims to significantly reduce dependence on fossil fuels and minimise CO₂ emissions, in line with global decarbonisation targets, and includes the electrification of the most relevant thermal processes.

To achieve this, PORCELANOSA is studying the feasibility of implementing electrification technologies to replace the use of natural gas in operations such as firing and drying, thereby reducing direct CO_2 emissions.

In addition, it proposes to improve the energy efficiency of its processes through the implementation of advanced technologies. Energy consumption will be optimised through digitalisation and the use of real-time energy management systems.

In line with the sustainable vision promoted by the organisation, the proportion of renewable energy used in the various production processes has been increased to over 90%. To this end, renewable energy sources, such as solar photovoltaic energy, have been integrated into its facilities. At the same time, it has established energy purchase agreements with suppliers that have a guarantee of renewable origin.

However, this ambitious plan is not without its challenges. One of the main ones is technological adaptation. The transition from fossil fuel-based systems to electric systems involves adapting machinery and processes.

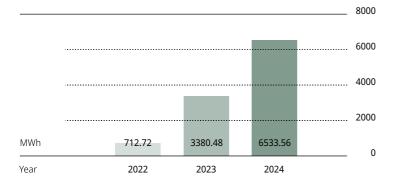
The specific technologies we will be working on include the possible replacement of natural gas furnaces with high-efficiency electric furnaces. These furnaces will enable a significant reduction in CO_2 emissions and improved energy efficiency.

Furthermore, the installation of photovoltaic solar panels at the company's facilities provides a clean and renewable energy source, reducing its energy dependence and operating costs.

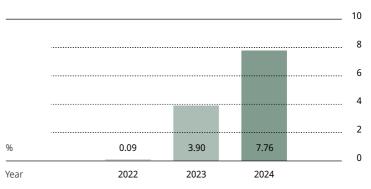
We are also open to exploring and closely following the evolution of advanced energy storage systems, such as batteries. This allows us to manage the intermittency of renewable energy sources, such as solar energy, and ensure a constant supply of energy.

Finally, energy management systems will be implemented to enable real-time monitoring and tracking of energy consumption, thereby improving efficiency, optimising and reducing operating costs.

PORCELANOSA is working to make its production processes more sustainable and efficient. At the same time, it seeks to consolidate its position as a benchmark in innovation and environmental responsibility.







Evolution of the percentage of photovoltaic self-consumption.

2022

2,44 MWp

installation on the roof of the large-format manufacturing plant

2023

1,24 MWp

2024

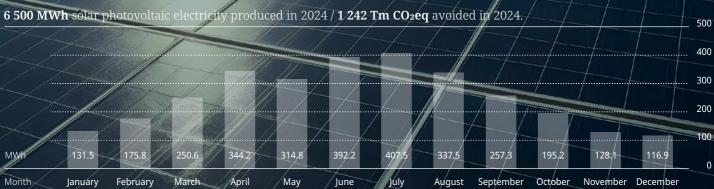
2,20 MWp

installation on the roof of Logistics Centre 1

2025

5,88 MWp

total installed power



Monthly distribution of solar photovoltaic energy production in 2024

2.8 Decarbonisation at Porcelanosa

Global environmental challenges and the growing demand for sustainable practices require concrete actions and clear commitments. Decarbonising the ceramic tile manufacturing industry is complex and poses a significant challenge that must be addressed through several key avenues, each of which contributes significantly to reducing greenhouse gas emissions. One of the main avenues is the electrification of thermal processes.

Traditionally, the ceramic industry has relied on fossil fuels, such as natural gas, for firing and drying tiles. However, the transition to electric systems powered by renewable energy offers a viable and sustainable solution. The implementation of high-efficiency electric kilns and hybrid dryers could enable us to reduce direct CO₂ emissions while improving energy efficiency. PORCELANOSA has already electrified low-temperature thermal processes, taking the first steps in its energy transition strategy towards low-emission heat generation sources.

The integration of renewable energies is another crucial path towards the decarbonisation of the ceramic tile industry. The installation of photovoltaic solar panels at PORCELANOSA already provides a clean and renewable energy source, helping to reduce our dependence on the electricity grid and reducing emissions from the purchase of electricity.

The optimisation of production processes is essential to reduce energy consumption and, therefore, CO_2 emissions. In 2016, PORCELANOSA implemented an energy management system certified according to the guidelines of the ISO 50001 standard, which allows real-time control and monitoring of energy use in our facilities. These systems use complex calculation methods to identify inefficiencies and propose adjustments that maximise energy efficiency.

Furthermore, the digitisation carried out at our facilities at different stages of the production process allows us to optimise the use of resources and reduce waste and wastefulness.

The adoption of circular economy practices also plays a fundamental role in its decarbonisation strategy. The reintroduction of ceramic waste into the production process and the reuse of water through recirculation and treatment systems in our plants are concrete examples of our commitment to the circular economy and reducing our environmental footprint. These practices not only minimise waste, but also contribute to reducing CO_2 emissions.

The incorporation of green hydrogen as a substitute for natural gas is one of the most promising emerging technologies. Green hydrogen is produced by electrolysis of water using renewable energy, and its combustion only generates water vapour, eliminating CO₂ emissions. However, its implementation presents significant challenges, such as the need to adapt existing technology to the requirements of the fuel switch, the adaptation of facilities to handle hydrogen, whether generated on-site or piped in, as well as the infrastructure needed for its production and storage when the time comes, or ensuring sufficient availability to meet energy needs.

PORCELANOSA has remained at the forefront of exploring this alternative route as an energy source to tackle decarbonisation. Through initiatives such as GREENH2KER in 2022 and the incorporation of strategic alliances such as the Q-ZERO Alliance and the Renewable Hydrogen Alliance of the Valencian Community (AH2RCV), recently integrated into the National Hydrogen Valley Alliance.

On the other hand, biogas is a viable alternative obtained from the decomposition of organic matter from waste and by-products. Its use as a fuel can reduce greenhouse gas emissions and decrease dependence on fossil fuels.

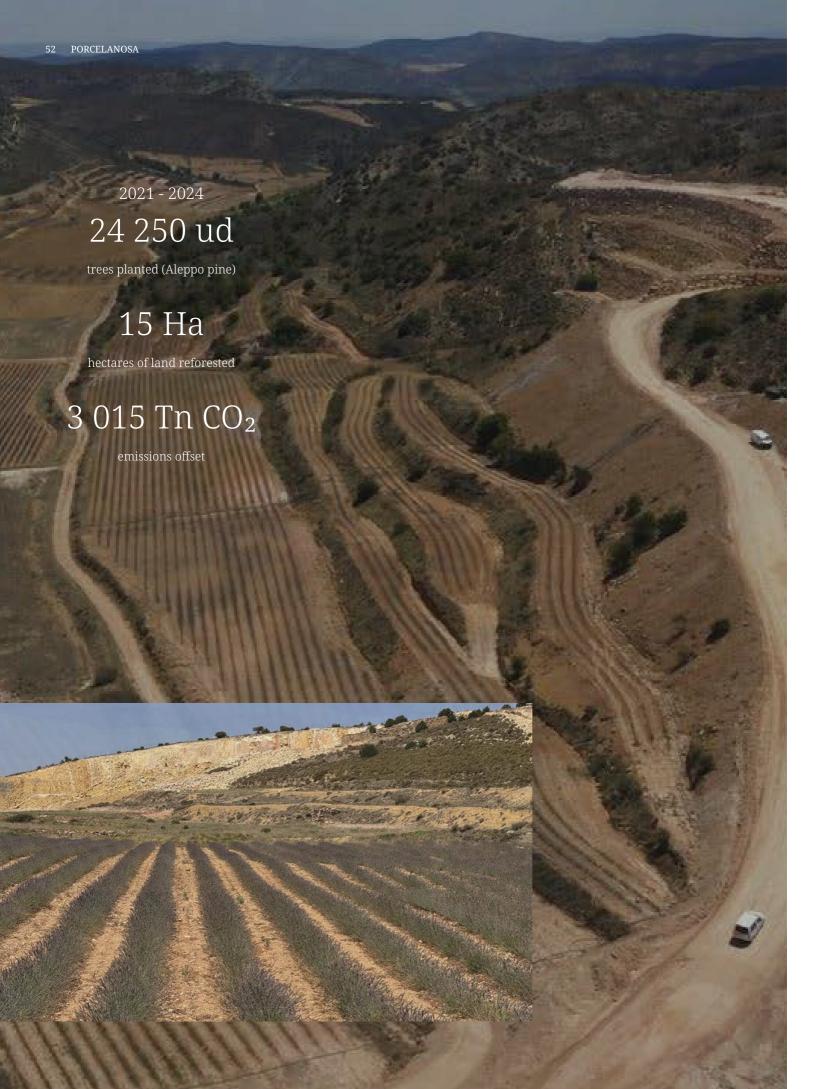
However, biogas production requires large amounts of organic waste and may be limited by the availability of these materials. PORCELANOSA is monitoring the evolution of state and regional initiatives in this regard, such as the National Biogas Plan, which is being implemented from 2021 to 2030 with the aim of increasing current biogas production by 3.8 times by 2030, reaching 10.41 TWh.

Finally, collaboration and partnerships with research centres, universities and other players in the sector are crucial to the success of our decarbonisation strategy. As mentioned above, being part of strategic alliances, such as the Q-ZERO Alliance and the Renewable Hydrogen Alliance of the Valencian Community (AH2RCV), recently integrated into the National Hydrogen Valleys Alliance, allows us to access advanced knowledge and technologies, as well as share best practices and jointly develop innovative solutions.

Therefore, in short, our decarbonisation strategy involves studying the feasibility of electrifying thermal processes, integrating renewable energies, optimising production processes, adopting circular economy practices, technological innovation with green hydrogen and biogas, and collaborating with other critical players.

Through these avenues, we are committed to reducing our carbon footprint and promoting a more sustainable and efficient future.





2.9 Protection of biodiversity

The reduction of the carbon footprint, together with the environmental policies implemented by PORCELANOSA Group, seeks to preserve and protect biodiversity through the care and recovery of natural ecosystems. Among the conservation and reforestation actions promoted by Porcelanosa Group, the work carried out in May 2021 and, more recently, in early 2024 in Crivillén (Teruel) stands out.

With these two initiatives, PORCELANOSA reforested around 11.5 hectares of land with more than 19 700 Aleppo pines, which will be capable of absorbing around 2 300 tonnes of CO₂ when fully grown. In January 2024, the second phase of PORCELANOSA's reforestation project at this mine was completed.

4 550 trees planted (Aleppo pine) 3.5 hectares of land reforested 715 tonnes of CO₂ emissions offset.

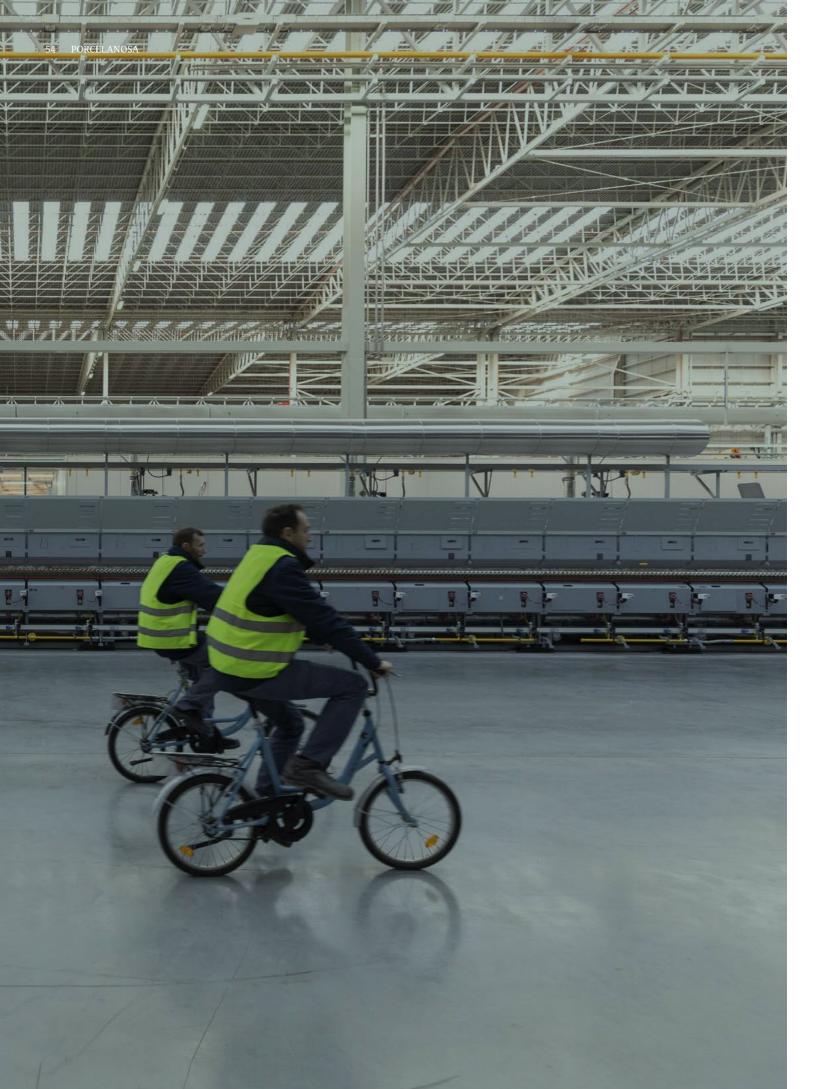
As with the first intervention carried out in 2020, this restoration has been carried out by creating a carbon sink, in accordance with the criteria of the Carbon Footprint, Offsetting and CO₂ Projects Registry, promoted by the Spanish Office for Climate Change and the Ministry for Ecological Transition and the Demographic Challenge. In this way, the project allows its promoter to offset part of its emissions.

The main objective of the restoration is to revegetate the area with native tree species, taking into account both their ability to adapt to the conditions of the project and their potential in terms of carbon sequestration.

Furthermore, as part of the actions carried out to offset the carbon footprint, in 2024, work has been carried out in the mines located in the municipalities of Aragón, La Mata de los Olmos and Crivillén. In the former, which has been open since September 2020, the decision has been made to develop an innovative restoration project with a socio-economic focus, moving away from traditional reforestation with pine trees. In this area, the aim is to redevelop previously unused limestone land, restore value to the municipality and generate benefits for the local population.

At the outset, 5.5 hectares of lavender were planted in La Mata de los Olmos around the mining site, with the idea of creating a productive and visually attractive garden. It is expected that by 2025, the area will have a transformed image and be in production, integrating environmental sustainability with rural development. When mining activity ends, the restored land will become municipal property.

As part of the restoration project, a pilot planting of **0.5 hectares of thornless** blackberries was carried out at an altitude of 1 000 metres, using a trellis system with drip irrigation. This initiative will evaluate the yield, costs and benefits of the crop in order to offer new agricultural alternatives to local farmers. Unlike conventional mining restoration projects, this model aims to generate economic activity and opportunities for local residents, who will be responsible for maintaining and harvesting the crops. It is a commitment to sustainable rural development.



2.10 Sustainable mobility

In today's world, characterised by urban growth, traffic congestion and environmental concerns, companies face a crucial challenge: ensuring the efficient and sustainable mobility of their employees. In this context, there is an urgent need to establish a mobility plan that comprehensively addresses travel to and from our workplace.

The implementation of a mobility plan responds to an internal need of the company and contributes to a broader purpose of social and environmental responsibility.

Porcelanosa Group works in collaboration with our employees, local authorities and other stakeholders to develop and implement a comprehensive plan that benefits everyone and promotes a more sustainable future for our company and our community.

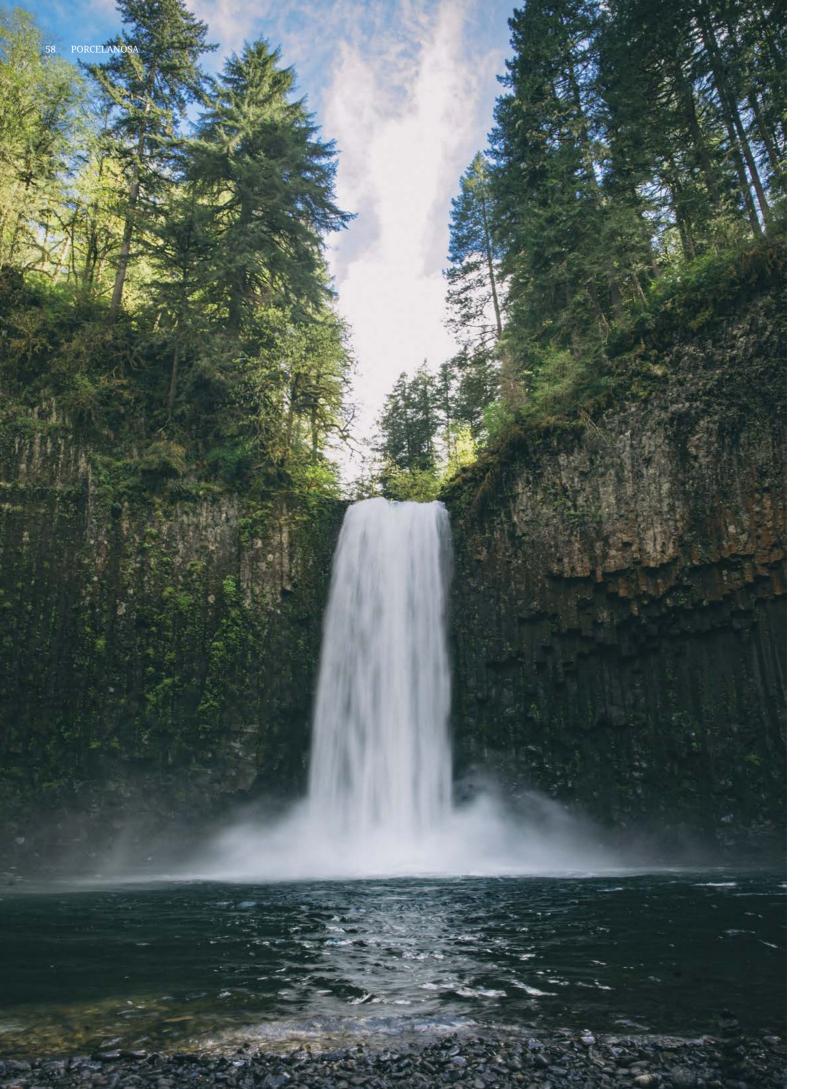
As part of its sustainability strategy,
Porcelanosa Group promotes initiatives
aimed at reducing its environmental
impact and improving the efficiency
of its operations. These actions cover
aspects related to people and production
processes, with the aim of moving
towards a more responsible model that is
committed to the environment. Below are
some of the actions and proposals that
have been carried out or are planned:

- Promoting carpooling through internal platforms or mobile apps to facilitate the organisation of shared journeys between employees who live in nearby areas.
- Installing bicycle and motorcycle parking spaces.
- Incorporating charging points for electric vehicles.
- Organising events and activities to promote the use of more sustainable means of transport.

- Coordinating shift start and end times to reduce congestion at entrances.
- Running awareness campaigns on the importance of reducing private vehicle use and promoting sustainable alternatives.
- Preferring video conferencing to avoid unnecessary travel (organising work meetings or training courses).
- Using bicycles as a general means of transport for internal travel.
- Gradually replacing fossil fuel company vehicles with electric vehicles, including for central security services.
- Using telemetry and remote management tools to collect data, manage records and control processes in production plants.

Environmental responsibility





3.1 Quality, energy and environmental policy

PORCELANOSA's integrated management policy establishes the basic guidelines for quality, the environment and energy management. It also adopts an explicit commitment to:

Protect the environment and the natural surroundings by adopting measures to contain, prevent and minimise the pollution produced as a result of the organisation's industrial activity.

Reducing atmospheric emissions (direct and indirect), promoting strategies aimed at reducing, reusing, recycling and recovering waste generated, as well as implementing initiatives to reduce water consumption.

Promoting the adoption of strategies and actions focused on a management model aligned with the circular economy, as opposed to traditional linear economy models.

3.2 Environmental certifications Environmental labelling

PORCELANOSA has environmental product declarations (EPD) for every type of ceramic tile it manufactures and sells. These are based on a cradle-to-grave life cycle assessment (LCA) that evaluates the potential impact of a product, process or activity on the environment throughout its useful life.

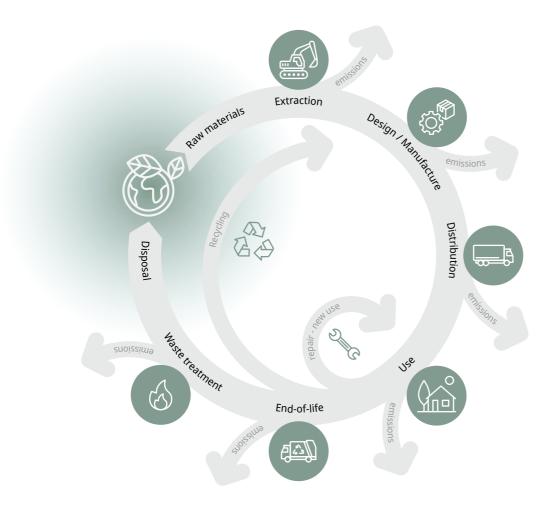
Environmental Product Declaration (EPD) or Type III Eco-label in

accordance with ISO 14025. Verified and certified by a third party.

Environmental Product Declarations are an essential tool for environmental improvement in the construction sector and, therefore, a useful tool for technicians, manufacturers and users. The certifications cover products from different stages of a building and provide us with objective, agreed and verified information about a product.

EPDs make it possible to quantify the impacts of building components and choose the most environmentally friendly products. They add value to the product and provide an objective method for quantifying the environmental impact of construction product manufacturing processes.

EPDs provide greater transparency and a good understanding of the overall impact of a building during its life cycle, enable objective sustainability criteria for a building to be established and strengthen a valued label, which is what the end user needs.



Environmental and Health Product Declarations (FDES) are the French equivalent of Environmental Product Declarations (EPDs) for construction products. FDES provide detailed information on the environmental and health impact of a construction product throughout its life cycle.

The regulatory framework for FDES in France is set out in standard NF EN 15804+A1. This standard is a French adaptation of European standard EN 15804 and defines the principles and requirements for Environmental and Health Product Declarations for Construction Products.

In the context of FDES, environmental and health aspects are considered, which broadens the focus beyond the simple carbon footprint and addresses other relevant impacts.

The official voluntary label of the European Union for environmental excellence is the EUROPEAN ECOLABEL (EEE or EU ECOLABEL).

PORCELANOSA has the EU Ecolabel

for a number of products in its portfolio that have an improved environmental component.





ISO 14021: FOREST and SMART Ecologic Series. Recycled material content greater than 95%.

FOREST, SMART and the Ecologic® Series are porcelain stoneware tiles made from atomised material obtained from the reuse of solid ceramic waste generated during the production process (raw clay plus dust recovered from the purification systems), with a pre-consumer recycled material content of over 95% by mass, compatible with the environmental self-declaration scheme or Type II eco-label according to UNE EN 14021:1999.

Contribution Cestion and Contribution Cestion Cestion

The use of PORCELANOSA products in sustainable construction projects can contribute to the achievement of certificates from the main sustainable building benchmarks LEED. BREEAM. VERDE.



Joia Aruba by Iberostar, Oranjestad / Aruba



BREEAM® promotes more sustainable construction that has economic, environmental and social benefits for everyone involved in the life of a building (tenants, users, developers, owners, managers, etc.). At the same time, it transfers the company's Corporate Social Responsibility to society and the market in an unequivocal and easily perceptible way.

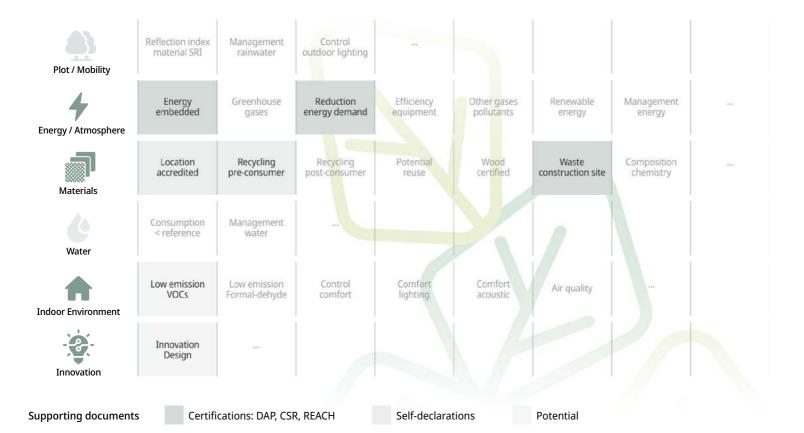
LEED (Leadership in Energy and Environmental Design) is transforming the way buildings and communities are designed, built, managed and maintained. Recognised globally, it has become the world's most widely used sustainable building certification system, with nearly 170,000 m² certified every day.

VERDE is the Spanish certification that distinguishes sustainable buildings in our country. This GBCe tool helps developers and professionals every day to achieve buildings with better performance and lower environmental impact, improve the quality of life of their occupants and meet environmental, economic and social challenges.

Depending on their use in the building, Porcelanosa products are compatible with LEED, BREEAM or VERDE points in several categories:

- Recycled material content.
- Environmental certifications (ecolabels).

- Easy maintenance, avoiding the use of aggressive chemicals.
- Energy performance (light colours with high solar reflectance indices (SRI) in warm areas on façades and also indoors to minimise energy consumption).
- Water consumption. Due to their impermeable surface, if used on terraces, roofs or façades to collect rainwater. Also, due to the low maintenance they require, less water is needed for their upkeep.
- Regional materials, both in the extraction of raw materials for production and in shipping, in projects carried out 'close' to the place of manufacture.



Environmental parameters in which it has a specific contribution. Detailed in the respective GREEN, LEED and BREEAM environmental certifications.

3.3 Carbon footprint reduction

Quantification and reduction of carbon footprint

In a world increasingly aware of the need for sustainable practices, PORCELANOSA made a commitment in 2011 to quantify and reduce its carbon footprint. This commitment not only reflects the company's environmental responsibility, but also its determination to lead the industry towards a more sustainable and efficient future.

The carbon footprint is an environmental measure that quantifies the greenhouse gases (GHG) directly or indirectly emitted by people, companies, materials or regions in each of their daily activities (consumption of natural gas, electricity, fuels, refrigerants, etc.).

In the first phase, PORCELANOSA carried out a precise quantification of its carbon footprint as an organisation. To do this, it used a comprehensive monitoring and reporting system that allows it to measure greenhouse gas (GHG) emissions at all stages of its production process and calculate indirect emissions from processes such as transport.

Using advanced data capture and analysis tools and specialised software, we collect detailed information on energy consumption, the use of raw materials and the journeys made by the transport vehicles that supply us with raw materials and materials or that take our products to their final destination, among other indicators.

This quantification provides a clear and accurate picture of Porcelanosa's direct and indirect CO_2 emissions, enabling it to identify key areas where improvements can be made to help progressively reduce emissions.

One of the main actions that has been carried out is the electrification of certain thermal processes, replacing the use of fossil fuels with electricity from renewable sources.

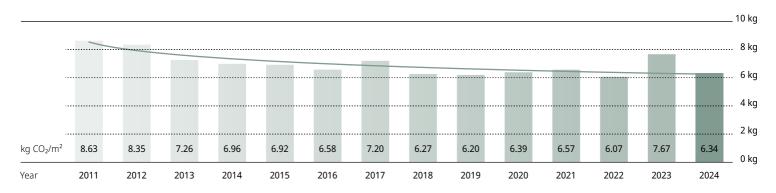
For example, improvements have been made to drying processes, along with other energy efficiency measures. These include replacing traditional natural gas burners with high-efficiency alternatives, recirculating excess heat from processes such as firing for reuse in drying, and changing lighting fixtures, replacing metal halide and fluorescent bulbs with LED technology. These measures are helping to reduce our direct carbon footprint year after year.

Another of the most significant initiatives that Porcelanosa has developed over the last three years has been the progressive integration of photovoltaic solar panels for electricity generation in its facilities, up to a total of 5.88 MW in 2025. These actions help to reduce direct CO_2 emissions while improving the energy efficiency of our processes.

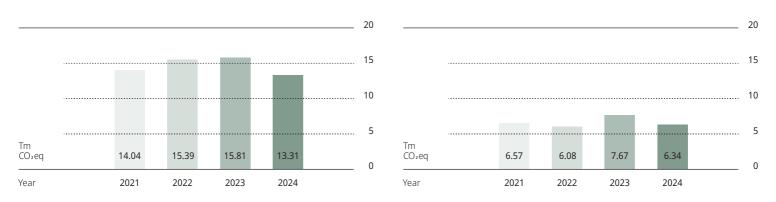
The commitment to reducing the organisation's carbon footprint also includes training and awareness-raising for staff and stakeholders.

Through training programmes and awareness campaigns, the organisation promotes a culture of sustainability, encouraging each employee to understand the importance of the initiatives and to actively contribute to their implementation.

The carbon footprint quantification and reduction strategy reflects our dedication to sustainability and innovation. Through the adoption of advanced technologies, process optimisation and the promotion of responsible practices, we are striving to build a greener and more efficient future. Since 2011, PORCELANOSA has calculated its carbon footprint in Scopes 1 and 2 and annually records the results in the carbon footprint, offsetting and CO₂ absorption projects register of the Ministry for Ecological Transition and Demographic Challenge. Based on its emissions performance each year, the organisation has been awarded the «Calculo» (I Calculate), «Calculo y Reduzco» (I Calculate and Reduce) or «Calculo, Reduzco y Compenso» (I Calculate, Reduce and Offset) seals, reflecting its ongoing commitment to mitigating climate change.



Evolution of PORCELANOSA's carbon footprint. Categories 1-2 (2011 - 2024).



Evolution of PORCELANOSA's carbon footprint. Categories 1-2-3 and scopes 1-2 (2021 - 2024).





3.4 Sustainable and responsible water management

PORCELANOSA is firmly committed to responsible water consumption at its facilities. This commitment not only reflects our environmental responsibility, but also our dedication to optimising the use of resources and improving the efficiency of our production processes.

Water is a necessary resource for our production processes. Aware of its importance, PORCELANOSA has implemented a comprehensive strategy within its environmental management system to manage water in a responsible and sustainable manner.

Some of the pillars of our strategy are minimising consumption, purification, recirculation and reuse of the wastewater generated.

To this end, wastewater treatment systems have been implemented that allow water to be purified and reused in different areas of the production process. Up to five treatment plants use purification technologies that remove impurities and contaminants, allowing the treated water to be returned to the production cycle. This practice not only reduces water consumption, but also helps to minimise the environmental impact of our operations.

Continuous monitoring and the ability to control water consumption are essential to our strategy. PORCELANOSA has installed sensors and measurement systems that allow us to monitor water use at every stage of the production process. These systems provide accurate, real-time data, identifying areas for improvement and enabling informed decisions to be made to optimise consumption of this resource.

Our commitment to responsible water consumption also includes training and awareness-raising among our staff. Through training programmes and awareness campaigns, we promote a culture of sustainability throughout the organisation, ensuring that every link in the chain understands the importance of our initiatives and actively contributes to their implementation.

Responsible water management is a priority for PORCELANOSA. Through the implementation of purification systems for the different stages of the process, the optimisation of methodologies and the reuse of resources, we aim to minimise our environmental impact and contribute to a more sustainable future.



3.5 Promoting ecological transition

To contribute to the achievement of the commitments made by the EU in the fight against and mitigation of climate change, and to demonstrate alignment with the UN Sustainable Development Goals, PORCELANOSA is developing different strategies and action plans with which it has been adapting its systems and processes so that they are carried out with a more sustainable and responsible approach to the environment and people.

The following initiatives, which have already been implemented or are in the planning stage, are proof of this:

 Preserving the environment and the natural surroundings with measures to contain, prevent and minimise pollution, CO₂ emissions (direct and indirect), waste generation and water consumption through recycling, reuse and recovery, and the implementation of energy efficiency and consumption reduction measures.

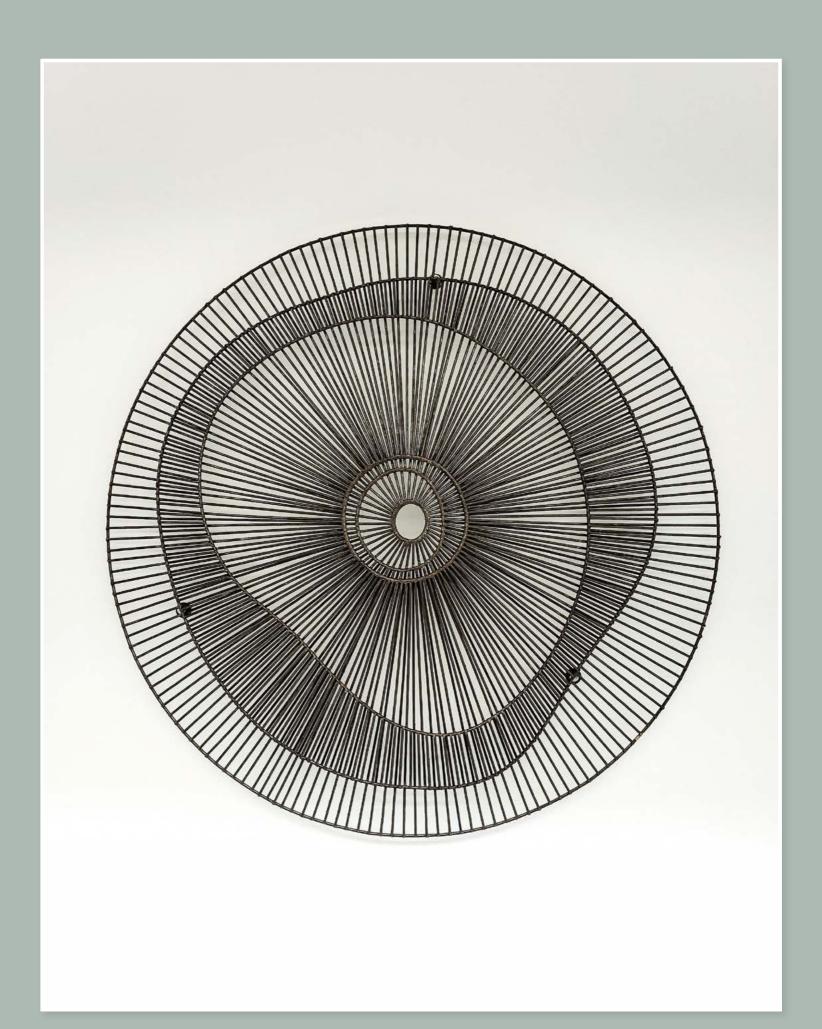
- Increasing the amount of pre-consumer and, where possible, post-consumer recycled material to maintain responsible production levels, thus expanding the range of collections with a recycled content of over 95%.
- Reusing industrial water and reintroducing it into the purification circuits in order to combat water scarcity and save water resources.
- Establish partnerships and promote public-private collaboration agreements that encourage research and innovation in new sources of renewable energy generation across the board, such as green hydrogen, biogas and electrification. This will accelerate the decarbonisation of industrial processes and reduce CO2 emissions into the atmosphere. PORCELANOSA is part of the Q-ZERO Alliance for Industrial Decarbonisation and the Valencian Community Renewable Hydrogen Alliance (AH2RCV), which has recently been integrated into the National Hydrogen Valley Alliance.

- Identify new energy opportunities based on the use of surplus heat sources or the integration of renewable energies such as solar photovoltaic energy.
- Electrify "low" temperature combustion processes, such as drying or transport.
- Absorb, capture and offset CO₂
 emissions to contribute to the reduction
 of global warming and comply
 with environmental objectives and
 agreements adopted.

Porcelanosa is a signatory to the United Nations Global Compact, with its objectives set out in the corresponding annual progress reports (CoP) in the areas of «Human Rights», «Labour», «Environment» and «Anti-corruption», in line with SDGs 5, 8, 9, 12 and 13.



---Sustainable products





4.1 FOREST, the ceramic parquet with the highest recycled content on the market

Composition with more than 95% pre-consumer recycled material content

Linked to the circular economy model promoted by the PORCELANOSA Group, the FOREST and SMART wood-effect ceramic series are designed to extend the product's useful llife and enhance the value of every resource and raw material. These materials reproduce the warmth and texture of natural wood through a composition that is over 95% recycled, in line with the Zero Waste strategy.

Forest is an innovative, high-quality porcelain stoneware manufactured using solid ceramic waste from other industrial processes to minimise its environmental footprint. The Forest series is designed to meet the growing demand from the residential and hotel markets and has a product environmental declaration (Dapcons).

The pieces in the Forest series have a Global Warming Potential (GWP) 17% lower than similar materials manufactured using conventional methods. This improvement is based on a comparison between ECO porcelain tiles and conventional porcelain tiles from PORCELANOSA, according to the data collected in their respective **Environmental Product Declarations** (DAPc).



4.2 GAMADECOR

Kitchens and bathrooms with 100% sustainable wood

Commitment to the environment

The principle of sustainability, as a balance between human development and the preservation of natural resources, is a strategic aspect that defines part of Gamadecor's DNA. That is why it has implemented various environmental management systems and more efficient production aimed at the progressive elimination of plastics in its packaging and the reduction of polluting emissions.

Gamadecor has incorporated the principles of sustainability and energy efficiency into its work dynamics through processes that respect the environment and promote a healthier lifestyle. These two characteristics define many of its kitchens, where the use of natural materials and technological innovation respond to responsible consumption through the use of boards from controlled forests.

Chain of Custody Seal

Chain of Custody (CoC) certification verifies all companies that follow a sustainable forestry development model. This sustainable forest management certification guarantees that all requirements applied comply with FSC® standards from origin to end use.

Chain of Custody certification ensures that the raw materials used in the manufacture of wood come from controlled forests (reforestation is guaranteed so as not to compromise the needs of future generations). It also ensures compliance with the principles of environmental, economic and social responsibility.

Gamadecor is among the list of companies that have FSC Chain of Custody certification.

Designer furniture made from 100% sustainable wood

Gamadecor promotes sustainable furniture design through its FSC®-certified wood, which comes from controlled, sustainable and socially responsible forests.

This commitment to the environment. based on the preservation of biodiversity and the care of forests, is reflected in the Residence R1 kitchens and bathroom furniture such as the Last series.

Last champions pure geometry and multifunctionality through squares and rectangles that are repeated continuously to create unique surfaces in the bathroom. Manufactured in Spain with a wide range of colours, textures and fittings (leading European brands), these units offer a wide variety of handles (front and integrated) and allow for customised design in washbasins and worktops.

Residence R1 Ecologic kitchen

Residence kitchens (manufactured in Spain) can be customised with a wide variety of handles (front and integrated) and feature a water-repellent worktop that extends the life of the kitchen, overcoming planned obsolescence. Thanks to its stability and aluminium plinths, this kitchen is more resistant than other models.

Projects P1 Ecologic kitchen

Projects kitchens (manufactured in Spain) adapt to any type of space and feature an innovative structure consisting of high-strength boards, high-quality fittings, handles (front or integrated) and dynamic plinths that are easy to remove.

ISO 14001 environmental management policies

As part of the environmental management strategy designed by Gamadecor to achieve sustainable development and a better brand reputation, the analysis to reduce the carbon footprint and the policies implemented in accordance with the international standard ISO 14001 stand out. These have made it possible to identify, improve and remedy corporate activities that have an impact on the environment in order to develop an environmental management policy certified by the Environmental Management System.







In addition to these measures, the company analyses its carbon footprint and implements the necessary measures to reduce and/or offset the impact of greenhouse gas emissions.

Circular design with 72% recycled material

The chipboard used by Gamadecor in its kitchen furniture reduces polluting gas emissions and the felling of trees due to its composition (72% recycled material). Of this percentage, 49% comes from circular economy systems (reuse and revaluation of furniture, doors and wood waste deposited at recycling centres) and 23% from sawmill waste (by-product). With these recycled boards, the raw material is converted into biomass (86 000 kg of clean sawdust in each process) and used as a renewable energy source to be fed back into the production plants. Through this sustainable redesign, Gamadecor avoids the unnecessary felling of more than 14 334 trees per year.

Healthier boards

The boards used in the shells improve health thanks to their low formaldehyde emissions, certified by the CARBII (ATCM 93120) / EPA (US EPA TSCA Title VI) classification for formaldehyde emissions.

Worktops with dual invisible induction

Digitalisation has improved kitchen design and manufacturing processes with advanced management mechanisms to achieve greater energy efficiency and responsible consumption of food and natural resources (water). These new features expand the use of the kitchen, turning it into a place for gathering and innovation that promotes the simplification of cooking processes and the optimisation of raw materials.

This has been demonstrated by Gamadecor in its SmartKitchen model, which now includes a new dual induction system hidden in the worktop to convert this surface into a hob or an area for powering appliances that share the same technology.

Among the main advantages of SmartKitchen over other more conventional types of kitchens are the modulation of the work areas, energy savings (only the hob that is in use is activated) and the easy cleaning of the worktop, as there are no separation joints. As there are no visible hobs or separate areas, it is designed as a single piece.



4.3 KRION

Products that reduce environmental impact

The evolution of the most popular Krion® Lux model now incorporates recycled material, allowing for a reduction in the consumption of raw materials and the amount of waste sent for disposal.

The new Recycled Content Krion® K·Life 1100, which incorporates at least 5% recycled material from post-consumer waste and is certified by SCS Global Services, retains its physical and aesthetic qualities. At the same time, it reinforces its profile as an environmentally friendly solution.

RC Krion® K·Life 1100 has obtained certifications such as Greenguard Gold and A+ classification, according to ISO 16000-6, which verify the product's low emissions. It is a material suitable for contact with food according to Regulation (EU) No. 10/2011 and certified by NSF-51 for food zones (direct contact with food).

Free of Bisphenol A, no dangerous crystalline silica has been detected in its composition and it is also considered to have low ecotoxicity for the environment; accredited and certified by renowned companies.

PORCELANOSA Group has optimised its production processes by incorporating principles of innovation and circular economy. These approaches have been applied to most of its designs with the aim of minimising environmental impact and promoting a more efficient use of natural resources. All this is in line with the criteria defined in its Sustainable Development and Zero Emissions strategy.

With this objective in mind, the RC Krion® K·Life 1100 compact mineral has been developed to guarantee the safety and sustainability of the material. The SGS certifies that it is free of chemicals that are harmful to health. This has enabled it to obtain REACH certification, which regulates the production and use of chemicals, as well as their potential impact on human health and the environment.

As a result of the almost zero porosity of RC Krion® K·Life 1100, environments that include this Solid Surface are free of bacteria and microorganisms (preventing dirt and stains from penetrating the surface) and reinforce their safety and health.

Classified as an inert material, this compact mineral is considered to have low ecotoxicity and contributes to reducing the carbon footprint. Its high resistance, together with the possibility of regeneration and complete recycling, extends its useful life compared to other products, allowing it to be reused in new designs.

Krion® LUX has high resistance to fire (EUROCLASS B-s1-d0), knocks and impacts. Its lightness, high mouldability and imperceptible joints allow for the creation of infinite surfaces that adapt to any space or project.

This action is expected to use 350,000 kilos of recycled raw material each year.

Krichshell®













Krion Shell® sustainable sanitary ware

Krion Shell® is Krion's Engineered Mineral Composite. While its internal composition is made up of minerals bonded with Eco resin and recycled PET, its outer layer also contains minerals, aluminium trihydrate and resins. Thanks to its innovative composition (at least 5% recycled material) and versatility, this material can be used in shower trays, washbasins and bathroom countertops.

Sustainable

To give Krion Shell® its remarkable properties, the mineral is bonded with an Eco Resin that comes largely from recycled PET.

Resistant

Thanks to Surface In-Mold Connection technology, this material achieves extraordinary impact resistance, preventing breakage from accidental drops of perfume bottles or hand showers.

In addition, it has been tested under UNE-EN 14527 and UNE-EN 14688 standards, proving its resistance to thermal shock and sudden temperature changes.

Stain resistance

Its non-porous nature gives it excellent stain resistance, even to stains that have remained on the surface for a long time, such as products used frequently in daily cleaning.

Easy to clean

Its ease of maintenance and cleaning promotes daily hygiene of the material. This avoids the use of excessive cleaning products and the time spent on these tasks.

Adjustable

The nature of the material allows it to be cut to fit different spaces. Until now, the customer had to adapt to the product, but now the product adapts to the customer.

Safe

Thanks to the non-porous surface, it prevents the proliferation of bacteria, creating safer spaces for everyone.

HD textures

The textures come directly from the manufacturing mould, creating highdefinition textures without the use of a coating or subsequent treatment. Thanks to these textures, higher slip coefficients can be achieved.

Repairable

In the unlikely event that the surface suffers damage that is irreparable in other materials, it can be easily repaired using a specific kit. This increases its useful life and, therefore, the sustainability of the product.

Certified

Krion Shell® is certified as a safe product. It does not emit VOCs (Volatile Organic Compounds) and does not contain any hazardous substances in its composition.





4.4 L'ANTIC COLONIAL

Natural wood, a sustainable material

Natural wood is a material that can contribute to construction with a lower environmental impact and greater environmental responsibility. During their growth, trees absorb carbon dioxide (CO₂), and part of that carbon can remain stored in wood products throughout their useful life.

When it is transformed into products such as solid wood flooring, that carbon can remain stored throughout its useful life. If the wood comes from sustainably managed sources and is processed in an energy-efficient manner, it can help reduce a building's carbon footprint.

In addition, the use of wood in interiors can improve thermal and acoustic comfort, and some studies suggest that it can have positive effects on well-being and indoor air quality.

Choosing wood from sustainably managed forests helps to preserve forest ecosystems and promote practices that respect biodiversity. FSC® (FSC-C028812) and PEFC certifications attest to appropriate, socially beneficial and economically viable environmental management, as they are certifications that promote the social economy, circularity and sustainable development. Aware of the need to combat deforestation and forest degradation. L'Antic Colonial has developed procedures to prevent the sale of products sourced from deforested land. These products must comply with current legislation and be subject to the Due Diligence System (DDS). These actions are aligned with the objectives of the EUDR regulation, which seeks to prevent deforestation, protect biodiversity and reduce greenhouse gas emissions.

Currently, 71% of the natural wood collections in L'Antic Colonial's catalogue are FSC® or PEFC® certified. 100% of the natural wood collections come from controlled sources, and all of them are subject to the SDD, which allows information on the origin of the wood to be collected, a risk assessment to be carried out and means to mitigate risks to be established if necessary.

Natural stone, natural origin

Since the dawn of humanity, natural stone has been used for construction and ornamental purposes. Stone is one of the best options for sustainable building due to its durability, low maintenance, ecological footprint, energy efficiency and zero VOC emissions, as well as its compliance with the 'three Rs rule': reuse, recycle and reduce.

The L'Antic Colonial catalogue includes different types of natural stone in different formats, as well as bathroom elements extracted and shaped directly from blocks of natural stone, without any joints in their construction.

Airslate is one of the most popular natural stone products. It comes in the form of a flexible sheet of minimal thickness, composed of a thin layer of stone on a technical support.

This format offers significant environmental advantages, as it requires much less material to extract than standard stone, significantly reducing energy consumption. Even so, it fulfils the same covering function.

In addition, its light weight allows a greater number of square metres to be transported per load, reducing the environmental impact associated with transport.

These circumstances have a direct impact on lower energy consumption, fewer emissions and a smaller carbon footprint.







Linkfloor Eco Dynasty

Linkfloor Eco Dynasty is a highly natural and sustainable flooring, manufactured without the use of plasticisers, using only renewable materials such as wood, cork, rapeseed oil, rubber and other natural fibres.

This product has been developed with a commitment to sustainability and respect for the environment, contributing to the reduction of environmental impact and helping to create healthier and more sustainable spaces.

Linkfloor Eco Dynasty is a smart choice of flooring product to contribute to a greener future, where industry innovation goes hand in hand with respect for the environment.

When used as flooring, Linkfloor Eco Dynasty offers great resistance and comfort, and despite being a natural product, it has good moisture resistance. All these characteristics combined give the product a high level of safety and reliability for use as flooring.

The aesthetics and finish of natural wood are reflected in every detail of Linkfloor Eco Dynasty, with four colours and the option of choosing a more rustic wood classification or a knot-free wood classification. The design of this product is the result of an exhaustive study and selection of natural wood flooring, achieving a high-resolution and realistic aesthetic.

The advantages of L'Antic Colonial's sustainable vinyl flooring include:

Natural product

Plastic-free natural flooring, made exclusively from materials such as wood, cork, fibres, rubber and other natural materials.

High walking comfort

The elastic properties of the comfort layer in the product's structure provide a pleasant feeling when walking and a high level of comfort. Footsteps are guiet and warm underfoot.

High-quality design

High-definition design with digital printing, providing great realism and developed from images of natural wood flooring.

Durability

The surface protection provides high resistance to scratches and chemicals. This way, L'Antic Colonial offers a natural floor with the same durability as an AC5 laminate floor.

Suitable for bathrooms and kitchens The waterproof board and secure click lock give the product good moisture resistance, allowing it to be installed in bathrooms and kitchens, following the product installation instructions.



4.5 Butech

Ventilated facades: energy savings of up to 30%

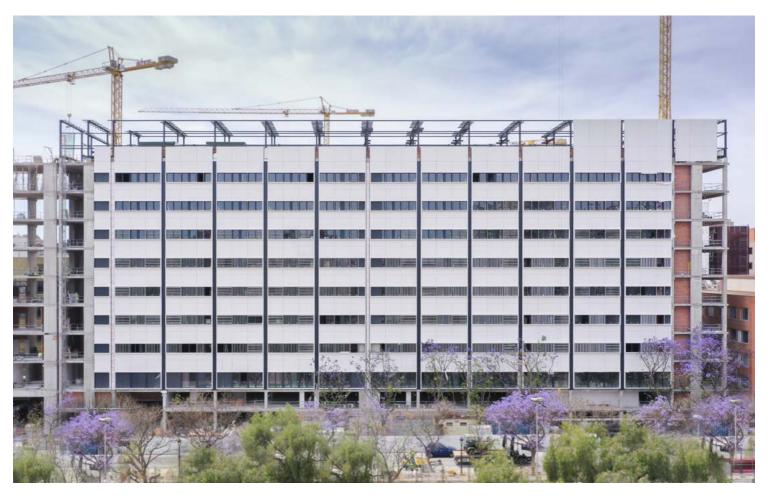
PORCELANOSA has devised a series of construction solutions to improve the enclosure and efficiency of buildings through its Butech brand. Specialising in advanced technical solutions and professional advice, the company has strengthened its innovation and research area to design new proposals and systems linked to the green transition and sustainable development. This is the roadmap followed by its advanced ventilated façades, which enable savings of up to 30% in building air conditioning, as well as reinforcing the technical performance of the building envelope by protecting against humidity and the most extreme weather conditions.

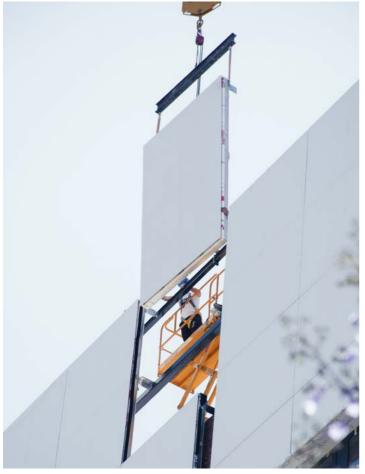
Along these lines, and with the aim of promoting more eco-efficient and sustainable construction solutions, the technicians and architects in Butech's façade department work closely with customers to adapt PORCELANOSA's façade systems to the needs of each project.

This work includes design modulation, structural calculation, material supply and final installation. It is a clear example of PORCELANOSA's commitment to quality service and personalised customer care.

Imperband Eco

This is a waterproofing sheet for interior walls and floors, compatible with the installation of ceramic tiles. It incorporates 70% recycled raw material, which helps reduce the impact of plastic pollution without reducing the level of waterproofing. Now you can also help protect the environment when installing a built-in shower tray with PORCELANOSA ceramics and Butech installation materials.







Porcelanosa Offsite

Modular solutions for industrialised construction

Investment in R&D&I and the application of new technologies in production methods have modernised construction systems with new materials and solutions that streamline procedures and construction times. This is the case with industrialised systems, where PORCELANOSA Group, through its company Butech, is leading this change with its Porcelanosa Offsite range. This range includes finished solutions ready for installation, such as modular façades (Modfacades), bathrooms (Monobath) and industrialised kitchens (Monokitchen).

Porcelanosa Offsite bathrooms, kitchens and façades are produced directly in its central factories, reducing construction times by up to 20% compared to traditional construction models.

It is precisely this unification of processes and the fact that they are manufactured directly by the supplier that allows for greater optimisation of human and natural resources, as the production of rubble and waste on site is completely eliminated.

Industrialised bathrooms and kitchens

Monobath and Monokitchen are Porcelanosa Group's industrial solutions for fully finished, ready-to-install bathrooms and kitchens. These modules include finishes, furniture, appliances, sanitary ware, accessories, and plumbing and electrical installations, and can be adapted to any space and range of finishes.

Modular facade

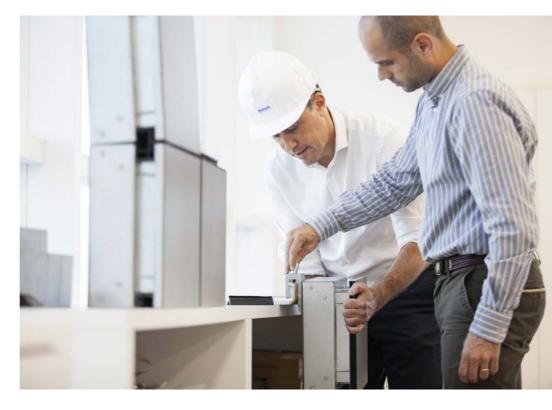
Porcelanosa Offsite offers fully finished facade modules with insulation, structure and finishes by Porcelanosa Group. Manufactured in the workshop, this system guarantees high construction quality, precise process control and a technical solution tailored to each project.

Left page:

Top image: modular façade of the Hospital Clínico de Valencia. Architecture: AICEQUIP Arquitectos & Ingenieros and FJ Jiménez Arquitectura, photography: Micrea. Bottom left image: detail of the assembly of the modular façade of the Hospital Clínico de Valencia.

Bottom right image: installation of industrialized bathrooms for the Caja Laboral de Burgos Residence. Architecture: Estudio Arquitectura BSA.

On this page: Butech's façade department team.



4.6 NOKEN

Waterforest, greater environmental awareness in the bathroom

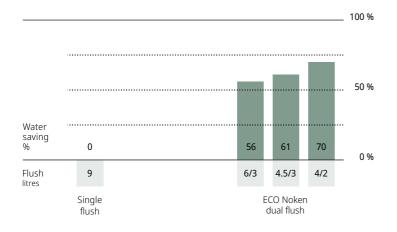
NOKEN reinforces its commitment to the environment through an ISO 14001-certified management system that covers everything from design to the sale of the final product. Its goal is to minimise waste sent to landfill by implementing the **Zero Waste** model, which promotes the reduction, reuse and recovery of waste within a circular economy.

It has also launched the **WaterForest** initiative, aimed at responsible water use in the home, with products such as cold-start taps, ECO aerators, dual-flush toilets and efficient shower trays.

Noken Eco-Flush / Sanitary ware

Noken offers its ECO dual-flush system for toilets, which allows for a greater or lesser amount of water to be flushed depending on the user's needs. This system is available on all our sanitary ware.

The new ECO MAX flush set, with Smart Line cistern and Acro compact toilet, reduces the flush to 4 and 2 litres. This represents a 70% reduction compared to a standard 9-litre flush.



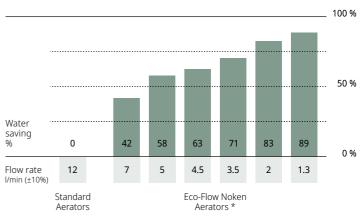
Noken Eco-Start / Taps

Technologies such as the cold start system always open the tap with cold water, allowing hot water to be selected only when necessary.

- Lower energy consumption.
- Lower CO₂ emissions from the use of heaters and boilers.

Noken Eco-Flow / Aerators

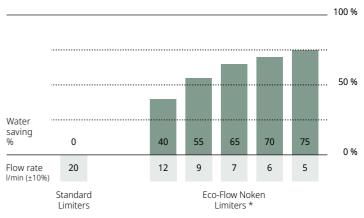
Save up to 89% water with the installation of an ECO aerator. This aerator limits the flow to a fixed value regardless of the pressure.



^{*} Consult aerator compatibility according to product reference.

Noken Eco-Flow / Showers

With the installation of Noken Eco-Flow limiters, you can reduce the shower flow by up to 75% without affecting user comfort.



^{*} Consult compatibility according to product reference.







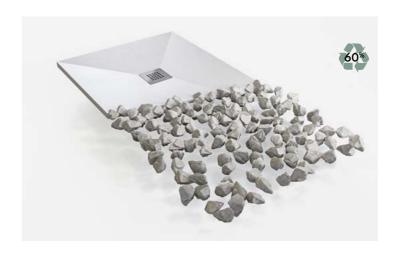


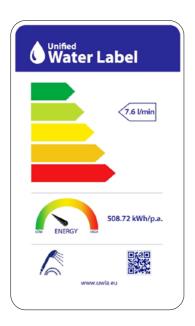
Noken Optimum-Flow / Sprinklers

The technology guarantees optimum performance in low pressure and low flow conditions. Designed to maximise efficiency, this solution optimises water flow and guarantees a comfortable shower experience, with a uniform flow and constant pressure. All this with reduced consumption, even in low pressure installations.

Noken Eco-Stone / Shower trays

Mineral Stone is our commitment to the environment without sacrificing the properties that high-quality elements provide: resistance, purity and lightness. The material we use for our Mineral Stone shower trays is composed of 60% natural calcium carbonate, recycled from white marble quarries.





Water Label

NOKEN integrates responsible water management into all its activities, from product design to communicating environmental benefits to customers. To improve this communication, it has implemented voluntary Water label labelling on a wide range of products. This system, regulated by the Unified Water Label Association, allows customers to easily understand water consumption efficiency by providing clear, accurate and intuitive information.

LEED - BREEAM

The LEED, BREEAM and VERDE standards certify, through external verification, that a building has been designed and constructed according to sustainable criteria such as energy saving, efficient use of water and reduction of emissions. NOKEN contributes to these objectives by designing products that help architects obtain the necessary credits, thus facilitating the selection of sustainable materials and equipment for their projects.



4.7 XTONE

Environmentally friendly design

XTONE is the PORCELANOSA Group firm that manufactures large-format porcelain tiles ($160~\rm cm~x~320~cm$). It also markets natural stone slabs under the Altissima brand.

The raw materials —porcelain and natural stone— come from responsibly managed quarries. After extraction, the materials are ground in a closed circuit: ceramic sludge and dust are reintroduced as secondary materials, so that the production process feeds on its own waste. The result is an inert and partially recyclable product; offcuts can be returned to the factory or used as technical aggregate, closing the material cycle.

Technological innovation reinforces this commitment with TEXTURE REVOLUTION. The CORE, COMET, ECLIPSE, LUMEN, ORION and TITAN applications allow the creation of deep veins, different reliefs and highly realistic colour nuances, achieving finishes that perfectly emulate exotic marbles and granites. This aesthetic fidelity significantly reduces the demand for natural stone and, therefore, the pressure on the quarries of origin, without sacrificing the mineral beauty that distinguishes these materials.

Image right: XTONE Alpinus White Nature.
Image below: XTONE Montreal White Nature.







The circular approach continues in the production plant, where all process water is decanted, purified and returned to the system, minimising water consumption. More than 95% of solid waste is recovered through recycling or internal and external reuse. The packaging is in line with the strategy: reusable wooden and metal trestles, cardboard with a high recycled content and water-based inks facilitate reverse logistics and simplify subsequent separation.

The energy dimension stands out for its high-efficiency furnaces, heat recovery and cogeneration, all managed under the ISO 50001 standard and externally audited. As a result, the company significantly reduces its energy consumption compared to other similar facilities.

In terms of health and well-being, the surfaces do not emit VOCs. They are suitable for contact with food due to their low porosity and resistance to chemical attacks, thermal shocks and impacts. This durability extends their service life and prevents premature replacement.

The entire process is backed by ISO 14001 environmental management and ISO 9001 quality management systems, as well as Environmental Product Declarations verified under the International EPD System, which provide transparency on the life cycle. XTONE and Altissima are thus consolidated as high-performance materials for projects seeking aesthetics, durability and a reduced environmental impact.

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