

cersanit



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Sanitary Ceramic Products



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Basic information

This declaration is the Type III Environmental Product Declaration (EPD) based on EN 15804+A2 and verified according to ISO 14025 by an external auditor. It contains the information on the impacts of the declared construction materials on the environment. Their aspects were verified by the independent body according to ISO 14025. Basically, a comparison or evaluation of EPD data is possible only if all the compared data were created according to EN 15804+A2.

Life cycle analysis (LCA): A1-A5, C1-C4 and D modules in accordance with EN 15804 (Cradle-to-Gate with options)

The year of preparing the EPD: 2023

Product standards: EN997, EN14055, EN14688, EN14528, EN13407, EN33, EN31, EN35, EN80

Service Life: 50 years

PCR: ITB-PCR A v1.6. (PCR based on EN 15804+A2)

Declared unit: 1 kg of sanitary ceramic product

Reasons for performing LCA: B2B

Representativeness: Polish, European

MANUFACTURER

Cersanit S.A. – a Polish joint-stock company producing ceramic tiles, sanitary ceramics and other products for comprehensive bathroom equipment, such as furniture, bathtubs, cabins, shower trays, concealed systems, taps, toilet seats, based in Kielce. Cersanit was established on January 15, 1992 as a result of the transformation of the state-owned enterprise Zakłady Wyrobów Sanitarnych "Krasnystaw" in Krasnystaw. The Cersanit group includes European brands: Cersanit, Opoczno, Meissen Keramik, Pilkington's and Mei. The company has 8 factories in Poland, Romania, Germany and Ukraine. Cersanit S.A. is one of the leading manufacturing companies in Europe. The Group's principal business involves the manufacturing and distribution of products used to finish and equip bathrooms (sanitary ceramic products, ceramic tiles, shower cubicles, acrylic bathtubs and shower trays, bathroom furniture and bathroom accessories). The main direction of foreign sales expansion is EU Member State markets (e.g. Lithuania, Latvia, Estonia, the Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Germany, France, Great Britain, Ireland, Sweden and Denmark), Eastern European markets (e.g. Ukraine, Moldova), southern European markets (e.g. Serbia, Croatia). Cersanit Group's goals: development of a strong, pan-European economic organization enabling it to maintain its leading role in the comprehensive bathroom fittings market, which, as a consequence, will ensure long-term growth of the company's value and satisfaction of its shareholders. Ceramic products covered by this EPD declaration are produced in the manufacturing plants located in Krasnystaw (Poland).



Fig. 1. Cersanit manufacturing plant located in Krasnystaw (Poland).

PRODUCTS DESCRIPTION AND APPLICATION

The considered product group of sanitary ceramic mainly consists of materials such as clay, kaolin, feldspar, quartz. The sanitary ceramic group includes washbasins, stand bides, toilets, urinals, tanks, bowls, used in bathrooms and sinks used in kitchens. Particularly, the assessment focuses on the

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average ceramic product resulting from the total mass, produced for the ceramic products of the considered group in the reference year 2021. After preparation of the slurry, sanitary ceramic is cast, dried, glazed and then fired. For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) Regulation (EU) No. 305/2011 (CPR) applies. The sanitary ceramics has a declaration of performance taking into consideration EN 997, EN 13407, EN 14528, EN 14688, EN 13310 and the CE-marking. The sanitary ceramic group are used for personal hygiene in particular. The functional properties of the ceramic products are presented in Table 1 and types of product covered by EPD are presented in Table 2.

Table 1. Technical performance of sanitary ceramic products manufactured by Cersanit S.A.in Krasnystaw

colour	Multicolored ceramic products	Product dimensions - width x depth x thickness (average values in mm)	Weight of the products (average values in kg)	Flushing
finisz / surface	Glazed			
Size/weight	Wall Hung Bowls	530x360x365	19	From 2/4L up to 3/6L
	Stand Bowls	535x360x420	22	3/6L
	Compact Bowls	635x360x410	22	From 3/5L up to 3/6L
	Tanks	350x170x370	11	-
	Washbasins	583x411x157	13	-
	Wall Hung Bide	523x359x337	20	-
	Stand Bide	550x360x390	19	-
	Urinals	307x354x582	12	-
	Pedestal	173x188x685	9	-
	Half-pedestal	287x223x318	6,5	-
	Urinal partition	400x80x680	10	-

Table 2. Product's types covered by EPD

Products	Description
Wall Hung Bowl average product weight – 19kg	Products are primarily made of natural materials such as clay, kaolin, quartz and feldspar, with water absorption $E \leq 0.5\%$, frost-resistant, intended personal hygiene
Stand Bowl and Compact Bowl average product weight – 22kg	Products are primarily made of natural materials such as clay, kaolin, quartz and feldspar, with water absorption $E \leq 0.5\%$, frost-resistant, intended personal hygiene
Tank average product weight – 11kg	Products are primarily made of natural materials such as clay, kaolin, quartz and feldspar, with water absorption $E \leq 0.5\%$, frost-resistant, intended personal hygiene
Washbasin average product weight – 13kg	Products are primarily made of natural materials such as clay, kaolin, quartz and feldspar, with water absorption $E \leq 0.5\%$, frost-resistant, intended personal hygiene
Wall Hung and stand Bide average product weight – 19.5kg	Products are primarily made of natural materials such as clay, kaolin, quartz and feldspar, with water absorption $E \leq 0.5\%$, frost-resistant, intended personal hygiene
Urinal and Partition average product weight – 11kg	Products are primarily made of natural materials such as clay, kaolin, quartz and feldspar, with water absorption $E \leq 0.5\%$, frost-resistant, intended personal hygiene
Pedestal and Half-pedestal average product weight – 7.7kg	Products are primarily made of natural materials such as clay, kaolin, quartz and feldspar, with water absorption $E \leq 0.5\%$, frost-resistant, intended personal hygiene

Note: More technical information on products available on the website of [Cersanit](http://Cersanit.com).

LIFE CYCLE ASSESSMENT (LCA) – general rules applied

Declared unit

Declared unit is 1 kg of ceramic sanitary product (averaged) including washbasins, toilets, urinals, tanks, bowls, bides and sinks...

Note1: The conversion from 1 kg to item should be done by multiplying by the specific impact (table 4) by a product weight (Table 2, for example 19 kg for Wall Hung Bowl).

Note2: All environmental impacts of the product are related to 1 kg of sanitary ceramic.

Allocation

The allocation rules used for this EPD are based on general ITB PCR A. Production of the ceramic products is a line process conducted in any factory of Krasnystaw (Poland). Allocation was done on product mass basis. Because of the identical manufacturing method, an average ceramic products (washbasins, toilets, urinals, tanks, bowls and sinks) has been considered according to the total mass produced for the respective ceramic products for the reference year 2021 The average product, without packaging, has a total weight of 1 kg in relation to the declared unit. All impacts associated with the extraction and processing of raw materials used for the production of ceramics are allocated in module A1 of the LCA. Impacts from the global line production were inventoried and 100% were allocated to the sanitary ceramic production. Water and energy consumption, associated emissions and generated wastes are allocated to module A3. Packaging materials were taken into consideration.

System limits

Type of the EPD is: cradle to gate - with options. The following life cycle stages were considered. Production stage including: A1 – Raw material extraction and processing, A2 – Transport to the manufacturer and A3 – Manufacturing, A4- Transport to Site, A5- Installation, End-of-life stage: C1- Deconstruction, C2 – Transport to waste processing, C3 – Waste processing, C4 – Disposal (landfill). This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues. EPD includes D module- declaration of all benefits and loads beyond product system. Energy and water consumption, emissions as well as information on generated wastes were inventoried and were included. It can be assumed that the total sum of omitted processes does not exceed 5% of all impact categories. In accordance with EN 15804+A2, machines and facilities (capital goods) required for the production as well as transportation of employees were not included in LCA. 99.8% materials submitted for the formulations and production data were taken into consideration. In the assessment, all available data from production have been considered, i.e. all raw materials/elements used as per formulation process, utilized thermal energy for heating, and electric power consumption. Thus, material and energy flows contributing less than 1 % of mass or energy have been considered. It can be assumed that the total sum of neglected processes does not exceed 0.5 % of energy use and mass per modules. The water consumption of the products during their use (B modules) was not taken into account, such consumption depends on individual building usage scenarios and local regulations.

Modules A1 and A2: Raw materials supply and transport

The modules A1 and A2 represent the extraction and processing of raw materials and components and transport to the production sites. Clay, dolomite, kaolin, grit, feldspar, sand, additives, auxiliary materials and packaging materials are sourced from domestic and foreign suppliers. Means of transport include railway, ships and trucks (inventoried). Polish and European standards for average combustion were used for calculations. Data on mode of transport and distances, as reported by suppliers were used for those materials and parts contributing more than 0.1 % of total product mass. A composition averaged (% by mass) of sanitary ceramic: Clay - 30%, Kaolin - 40%,

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Feldspar - 10%, Quartz - 20%, other components - 0% to 10% (dolomite, zirconium silicate, frit, chalk).

Module A3: Production

The production of ceramic products is carried out in factory Krasnystaw (Poland) and presented in a simplified scheme in Figure 2. Gas and electricity are used in the production process. The raw materials delivered to the production plant are stored in dedicated compartments and silos. Some components are delivered in bags. Some of the raw materials first are treated mechanically, in the form of grinding. The slip is then prepared by mixing the raw materials with water and sieving them. The raw material mix is stirred with the addition of water, then sieved. The addition of glues takes place shortly before processing. The casting moulds required for production are either made of plaster or porous plastic. For small series, a manual casting process and exclusively plaster moulds are used. The porous plastic moulds are used only for big quantities with high pressure casting. After casting, the ceramic products are fed to different drying processes, depending on their complexity. The glaze is applied to the dried blank either manually or fully automatically. In both processes, the overspray is collected, returned and reused. In order to achieve the highest possible stocking density, the glazed blanks are manually positioned on the kiln carriage. The firing takes place in a tunnel kiln at over 1250 °C and for approximately 15-20 hours. After firing, each product is subjected to an extensive individual test. Sanitary ceramic is packaged in cardboard boxes fixed to the pallets with plastic stretch film.

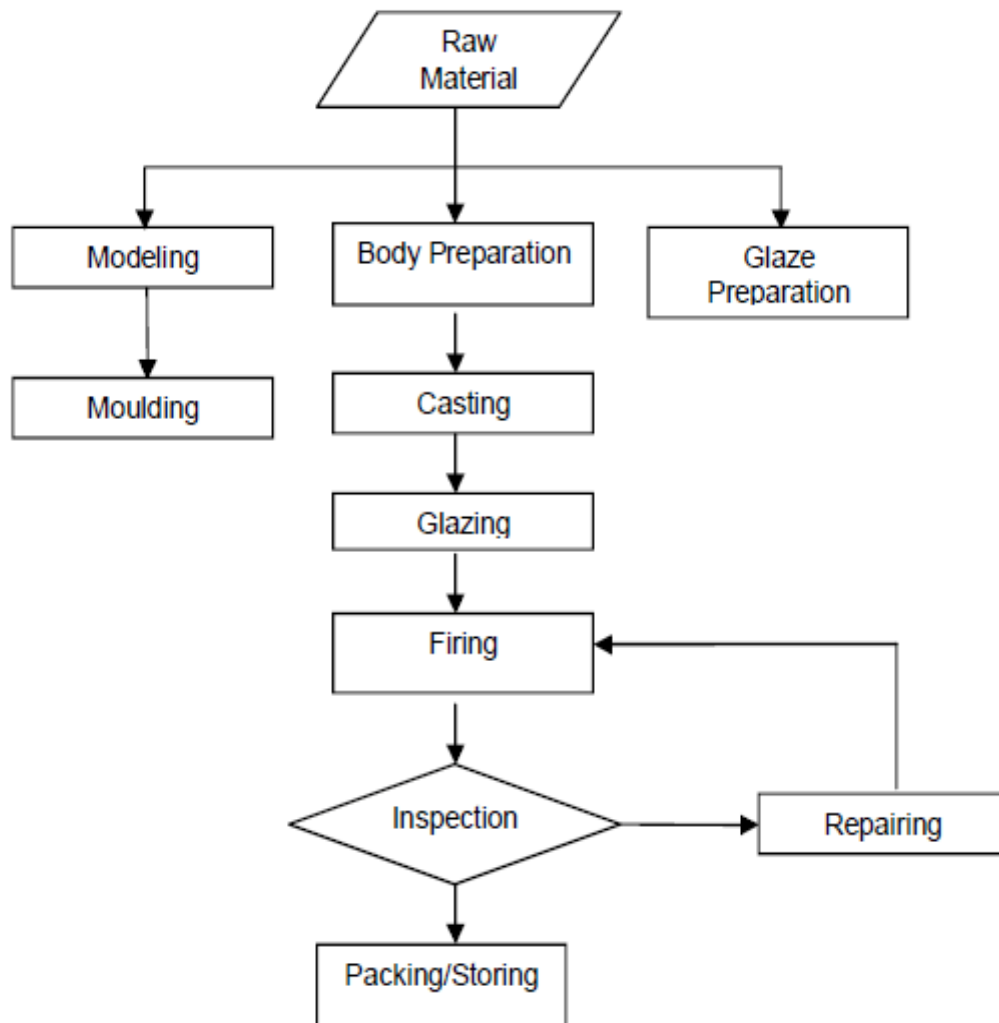


Fig. 2. The scheme of the sanitary ceramic production process by Cersanit S.A.

Module A4: Transport to a construction site

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The ceramic produced are delivered to Polish as well as foreign customers. In the adapted scenario an average distance of 250 km from the factory gate to a recipient is assumed. Means of transport include 16-32t lorry (EURO 5) with fuel consumption of 35 l per 100 km.

Module A5: Installation process

In the adapted scenario the installation process requires materials recommended by the Cersanit S.A.. Only consumable materials have been included in the calculation.

Modules C1, C2, C3, C4 and D: End-of-life (EoL)

In the adapted scenario, dismantling of ceramic products (C1) is performed as part of building renovation or demolition processes, where environmental impacts from declared products can be considered as minor (<1%). There are no specific deconstruction methods, applied in Poland, in regards with the sanitary ceramics so the electric tools work was assumed. During the demolition process the major amount of the products contribute to the construction and demolition wastes which can be processed on site or in a waste processing plant. It is assumed that 100% of ceramic products are recovered at the EoL cycle. EoL waste processing was modelled with a shredding treatment assuming an electricity consumption. Recovered material is transported to either to landfill or construction site distant by 70 km, on 16-32t lorry (EURO 5) with fuel consumption of 35 l per 100 km. In the adapted scenario 50% of the ceramics is recycled and further used as aggregate for road foundation or ballast (credits presented in module D) while remaining 50% is forwarded to landfill in the form of mixed construction and demolition wastes. Environmental burdens declared in module C4 are associated with waste-specific emissions to air, soil and groundwater. Regarding the recycling material of metals, the metal parts in the EoL are declared as end-of-waste status. Electricity at end-of-life (module C) has been modelled. Electricity at end-of-life (module D) has been modelled using an average EU-27 electricity mix as the location where the product reaches end-of-life is unknown.

Data quality

The data selected for LCA originate from ITB-LCI questionnaires (1 manufacturing plant) completed by producer and verified via data audit. No data collected is older than five years and no generic datasets used are older than ten years. The representativeness, completeness, reliability, and consistency are judged as good. The background data for the processes come from the following resources database Eco invent v.3.9 (minerals, additives, energy carriers, waste treatment, and packaging). The background data for energy is national based on KOBiZE/GUS reports (Polish electricity mix and combustion factors for fuels). Specific (LCI) data quality analysis was a part of the input data verification.

Data collection period

The data for manufacture of the declared products refer to period between 01.01.2021 – 31.12.2021 (1 year). The life cycle assessments were prepared for Poland.

Assumptions and estimates

Environmental impacts associated with ceramic production were aggregated using weighted averages.

Calculation rules

LCA was done in accordance with ITB PCR A 1.6.document.

Databases

The data for the processes comes from the following databases: Ecoinvent v.3.9, specific EPDs, ITB-Database.

Additional information

Polish electricity mix used (production) is 0.698 kg CO₂/kWh (KOBiZE 2021). European electricity mix used is 0.430kg CO₂/kWh for the end of life (Ecoinvent v3.9, RER).

This products don't contains substances listed in the candidate list (substances of very high concern SVCH) exceeding 0.1 percentage by mass. This product don't contains other carcinogenic, mutagenic, reprotoxic (CMR) substances in categories 1A or 1B which are not on the candidate list, exceeding 0.1 percentage by mass.

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LIFE CYCLE ASSESSMENT (LCA) – Results

Declared unit

The declaration refers to declared unit (DU) – 1 kg of the sanitary ceramic product manufactured by Cersanit S.A in Krasnystaw.

Table 3. System boundaries for the environmental characteristic of sanitary ceramic products

Environmental assessment information (MD – Module Declared, MND – Module Not Declared, INA – Indicator Not Assessed)																	
Product stage			Construction process		Use stage								End of life				Benefits and loads beyond the system boundary
Raw material supply	Transport	Manufacturing	Transport to construction site	Construction-installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse-recovery-recycling potential	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
MD	MD	MD	MD	MD	MND	MND	MND	MND	MND	MND	MND	MD	MD	MD	MD	MD	

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Table 4. Life cycle assessment (LCA) results of the ceramic products manufactured by Cersanit S.A. - environmental impacts (DU: 1 kg)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
Global Warming Potential	eq. kg CO ₂	7.75E-02	3.65E-01	1.05E+00	1.49E+00	4.17E-02	1.16E-02	6.98E-03	1.10E-02	4.65E-02	5.43E-03	-1.26E-02
Greenhouse gas potential - fossil	eq. kg CO ₂	2.25E-01	3.64E-01	1.05E+00	1.63E+00	4.16E-02	1.14E-02	6.85E-03	1.10E-02	4.63E-02	5.37E-03	-1.25E-02
Greenhouse gas potential - biogenic	eq. kg CO ₂	-1.94E-01	1.24E-03	2.36E-03	-1.90E-01	1.42E-04	3.33E-04	2.00E-04	3.76E-05	4.07E-04	5.34E-05	-8.45E-05
Global warming potential - land use and land use change	eq. kg CO ₂	4.13E-03	1.43E-04	1.49E-04	4.42E-03	1.63E-05	4.00E-06	2.40E-06	4.32E-06	9.94E-06	5.43E-06	-5.22E-06
Stratospheric ozone depletion potential	eq. kg CFC 11	1.80E-08	8.42E-08	8.13E-08	1.83E-07	9.62E-09	2.33E-10	1.40E-10	2.55E-09	3.98E-01	1.64E-09	-4.35E-10
Soil and water acidification potential	eq. mol H ⁺	1.55E-03	2.01E-01	2.42E-03	2.05E-01	1.69E-04	1.27E-04	7.60E-05	4.47E-05	4.23E-04	4.54E-05	-3.87E-05
Eutrophication potential - freshwater	eq. kg P	1.62E-04	2.44E-05	5.67E-05	2.43E-04	2.79E-06	2.17E-05	1.30E-05	7.40E-07	2.62E-05	1.54E-06	-1.51E-06
Eutrophication potential - seawater	eq. kg N	2.73E-04	4.50E-04	5.46E-04	1.27E-03	5.09E-05	1.83E-05	1.10E-05	1.35E-05	9.45E-04	1.57E-05	-1.37E-05
Eutrophication potential - terrestrial	eq. mol N	2.72E-03	4.91E-03	4.26E-03	1.19E-02	5.55E-04	1.55E-04	9.30E-05	1.47E-04	1.93E-03	1.70E-04	-1.52E-04
Potential for photochemical ozone synthesis	eq. kg NMVOC	1.16E-03	1.50E-03	1.40E-03	4.06E-03	1.70E-04	4.33E-05	2.60E-05	4.50E-05	4.32E-04	4.93E-05	-5.41E-05
Potential for depletion of abiotic resources - non-fossil resources	eq. kg Sb	2.05E-06	1.29E-06	4.32E-06	7.66E-06	1.47E-07	5.57E-08	3.34E-08	3.90E-08	7.42E-08	1.81E-08	-3.14E-08
Abiotic depletion potential - fossil fuels	MJ	3.67E+00	5.40E+00	7.95E+00	1.70E+01	6.17E-01	1.93E-01	1.16E-01	1.63E-01	2.63E-01	1.24E-01	-2.01E-01
Water deprivation potential	eq. m ³	1.64E-01	2.50E-02	1.13E-01	3.02E-01	2.85E-03	4.00E-03	2.40E-03	7.55E-04	5.52E-03	7.15E-04	-2.15E-03

Table 5. Life cycle assessment (LCA) results of the ceramic products manufactured by Cersanit S.A. - environmental information describing waste categories (DU: 1 kg)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste neutralized	kg	1.18E-02	6.06E-03	8.20E-03	2.61E-02	6.92E-04	2.00E-06	1.20E-06	1.83E-04	2.40E-06	3.26E-06	-1.54E-04
Non-hazardous waste neutralised	kg	1.78E+00	1.07E-01	1.72E-01	2.06E+00	1.23E-02	1.04E-04	6.24E-05	3.25E-03	5.93E-03	5.01E-01	-6.75E-03
Radioactive waste	kg	7.82E-05	4.03E-07	2.19E-05	1.00E-04	4.60E-08	1.45E-07	8.70E-08	1.22E-08	3.39E-07	7.59E-07	-1.54E-04
Components for re-use	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
Materials for recycling	kg	2.17E-04	1.76E-05	3.85E-01	3.86E-01	1.91E-06	2.00E-07	1.20E-07	5.06E-07	4.46E-07	5.78E-09	-2.35E-06
Materials for energy recovery	kg	4.33E-06	1.35E-07	1.43E-04	1.48E-04	1.54E-08	1.75E-09	1.05E-09	4.09E-09	4.67E-09	6.85E-11	-6.59E-09

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Table 6. Life cycle assessment (LCA) results of the ceramic products manufactured by Cersanit S.A. - environmental aspects related to resource use (DU: 1 kg)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
Consumption of renewable primary energy - excluding renewable primary energy sources used as raw materials	MJ	1.20E+00	7.74E-02	2.65E+00	3.92E+00	8.85E-03	1.43E-02	8.60E-03	2.34E-03	1.78E-02	0.00E+00	-1.26E-02
Consumption of renewable primary energy resources used as raw materials	MJ	1.53E+00	0.00E+00	0.00E+00	1.53E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total consumption of renewable primary energy resources	MJ	2.72E+00	7.74E-02	2.65E+00	5.45E+00	8.85E-03	1.43E-02	8.60E-03	2.34E-03	1.78E-02	0.00E+00	-1.26E-02
Consumption of non-renewable primary energy - excluding renewable primary energy sources used as raw materials	MJ	3.34E+00	5.40E+00	9.12E-01	9.65E+00	6.17E-01	1.94E-01	1.16E-01	1.63E-01	1.27E-01	0.00E+00	-2.01E-01
Consumption of non-renewable primary energy resources used as raw materials	MJ	3.30E-01	0.00E+00	0.00E+00	3.30E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E-01	0.00E+00	0.00E+00
Total consumption of non-renewable primary energy resources	MJ	3.67E+00	5.40E+00	9.12E-01	9.98E+00	6.17E-01	1.94E-01	1.16E-01	1.63E-01	2.80E-01	0.00E+00	-2.01E-01
Consumption of secondary materials	kg	6.01E-03	1.81E-03	1.28E-03	9.10E-03	2.07E-04	1.77E-05	1.06E-05	5.48E-05	3.52E-05	6.07E-07	-8.35E-05
Consumption of renewable secondary fuels	MJ	3.83E-02	1.99E-05	4.45E-05	3.84E-02	2.28E-06	9.85E-08	5.91E-08	6.03E-07	3.08E-07	1.59E-08	-5.44E-07
Consumption of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-04	9.39E-05	0.00E+00	1.88E-04	0.00E+00	0.00E+00
Net consumption of freshwater resources	m ³	4.88E-03	6.79E-04	1.70E-02	2.25E-02	7.76E-05	5.25E-05	3.15E-05	2.05E-05	9.03E-05	2.21E-05	-8.50E-04

Table 7. Life cycle assessment (LCA) results of the ceramic products manufactured by Cersanit S.A. – additional impacts indicators (DU: 1 kg)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
Particulate matter	disease incidence	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA
Potential human exposure efficiency relative to U235	eg. kBq U235	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA
Potential comparative toxic unit for ecosystems	CTUe	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA
Potential comparative toxic unit for humans (cancer effects)	CTUh	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA
Potential comparative toxic unit for humans (non-cancer effects)	CTUh	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA
Potential soil quality index	dimensionless	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA	INA

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Verification

The process of verification of this EPD is in accordance with ISO 14025 and ISO 21930. After verification, this EPD is valid for a 5-year-period. EPD does not have to be recalculated after 5 years, if the underlying data have not changed significantly.

The basis for LCA analysis was EN 15804+A2:2020-03 and ITB PCR A
Independent verification corresponding to ISO 14025 (subclause 8.1.3.) <input checked="" type="checkbox"/> external <input type="checkbox"/> internal
External verification: Halina Prejzner, PhD. eng. LCA, LCI audit and input data verification: Michał Piasecki, PhD., D.Sc., eng.

Note 1: The declaration owner has the sole ownership, liability, and responsibility for the for the information provided and contained I EPD. Declarations of construction products may not be comparable if they do not comply with EN 15804+A2. For further information about comparability, see EN 15804+A2 and ISO 14025.

Note 2: Note: ITB is a public Research Organization and Notified Body (EC Reg. no 1488) to the European Commission and to other Member States of the European Union designated for the tasks concerning the assessment of building products' performance. ITB acts as the independent, third-party verification organization (17065/17029 certified). ITB-EPD program is recognized and registered member of The European Platform – Association of EPD program operators and ITB-EPD declarations are registered and stored in the international [ECO-PORTAL](#).

Normative references

- ITB PCR A, V1.6 General Product Category Rules for Construction Products (2023)
- EN 997:2012 - WC pans and WC suites with integral trap.
- EN 13310:2003 - Kitchen sinks – Functional requirements and test methods.
- EN 13407:2006 - Wall-hung urinals – Functional requirements and test methods.
- EN 13501-1:2018 - Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests.
- EN 14528:2007 - Bidets - Functional requirements and test methods.
- EN 14688:2006 - Sanitary appliances - Wash basins -Functional requirements and test methods.
- ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures
- ISO 21930:2017 Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services
- ISO 14044:2006 Environmental management – Life cycle assessment – Requirements and guidelines
- ISO 15686-1:2011 Buildings and constructed assets – Service life planning – Part 1: General principles and framework
- ISO 15686-8:2008 Buildings and constructed assets – Service life planning – Part 8: Reference service life and service-life estimation
- EN 15804:2012+A2:2019 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
- PN-EN 15942:2012 Sustainability of construction works – Environmental product declarations – Communication format business-to-business
- KOBiZE Wskaźniki emisyjności CO₂, SO₂, NO_x, CO i pyłu całkowitego dla energii elektrycznej, grudzień 2021



Instytut Techniki Budowlanej

00-611 Warsaw, Filtrów 1

Thermal Physics, Acoustics and Environment Department

02-656 Warsaw, Ksawerów 21

CERTIFICATE No 460/2023
of TYPE III ENVIRONMENTAL DECLARATION

Products:

Sanitary Ceramic

Manufacturer:

Cersanit S.A.

al. Solidarności 36, Kielce, Poland

confirms the correctness of the data included in the development of
Type III Environmental Declaration and accordance with the requirements of the standard

EN 15804+A2

Sustainability of construction works.

Environmental product declarations.

Core rules for the product category of construction products.

This certificate, issued on 12 June 2023 is valid for 5 years
or until amendment of mentioned Environmental Declaration

Head of the Thermal Physic, Acoustics
and Environment Department


Agnieszka Winkler-Skalna, PhD



Deputy Director
for Research and Innovation


Krzysztof KuCzyński, PhD

Warsaw, June 2023