

Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Composite granite kitchen sinks

From

COMPOTEXA

EPD of multiple products, based on the average results of the product group

Programme:	The International EPD® System, www.environdec.com
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An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com



General information–

Programme information

Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
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Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): PCR 2019:14 – Construction Products (EN 15804+A2) – version 1.3.3 the UN CPC code 376 “Monumental or building stone and articles thereof” among others
PCR review was conducted by: The Technical Committee of the International EPD System. See www.environdec.com for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact .
Life Cycle Assessment (LCA)
LCA accountability: Silvija Serapinaitė, UAB “Vesta Consulting“
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: <input checked="" type="checkbox"/> EPD verification by individual verifier Third-party verifier: Anni Oviir, Rangi Maja OÜ Approved by: The International EPD® System Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: COMPOTEXA, UAB

Contact: info@compotexa.com, +370 618 61362

Description of the organisation: COMPOTEXA is a proficient manufacturer of high quality kitchen and bathroom fittings, located in Lithuania. Over the past two decades, COMPOTEXA has been exporting to over 60 countries, serving the B2B segment worldwide.

Product-related or management system-related certifications: The company has implemented quality management in accordance with the standard requirements of ISO 9001. To ensure the highest quality, all of our products undergo rigorous laboratory testing, meeting the highest requested standards EN 13310:2015+A1:2018 for sinks and EN 14688:2015+A1:2018 for washbasins. Regular tests are conducted at our own laboratory, and we also collaborate with international laboratories.

Name and location of production site(s): Mažūnai (Mažūnų village), Mažūnų street No.5, Kelmės district, 86120 Lithuania

Product information

Product name: Composite granite kitchen sinks

Product identification: Compotexa composite granite kitchen sinks has CE marking and represents that products comply with the EU's Directives. Composite granite sinks are manufactured in compliance with EN 13310:2015+A1:2018 standard.

Company is ISO certified with certification for ISO 9001. The products pass food contact tests according to Regulation 1935/2004/EC, 10/2011/EU and DGCCRF (DM/4BCOM/003). Compotexa granite sinks comply with Regulation (EC) No 1907/2006 requirements regarding registration, evaluation, authorization and restriction of chemicals.

Product description: Compotexa manufactures composite granite kitchen sinks, made of SILICSANA material®, which formula was created in collaboration with top European scientists. The sinks are specifically designed to enhance functionality and durability, also to provide a vibrant, long-lasting color and achieve excellent material stability.

The sinks are available in different sizes and designs, therefore weight different amounts. The assessment focuses on the average product resulting from the total mass.

Product application: Composite granite kitchen sinks are used for various purposes, such as washing dishes, vegetables, hands, and other items, also for discharge of domestic wastewater. They are durable, scratch-resistant, heat-resistant, and stain-resistant. These sinks are a good option for those who want a durable, sanitary, and stylish sink that is not too expensive or difficult to maintain.

UN CPC code: 376 Monumental or building stone and articles thereof

Geographical scope: The geographical scope of this EPD is Europe, as product is produced in Lithuania and other modules (as transportation or end-of-life) are modelled for the market in Europe.

LCA information

Functional unit / declared unit: The declared unit is 1 kg of product, including its packaging (the weight of the packaging is not included in this 1 kg).

Reference service life: On the assumption of proper use and care, a typical service life is 40 years

Time representativeness: Primary data was collected internally. The production data refers to the average of the year 2023.

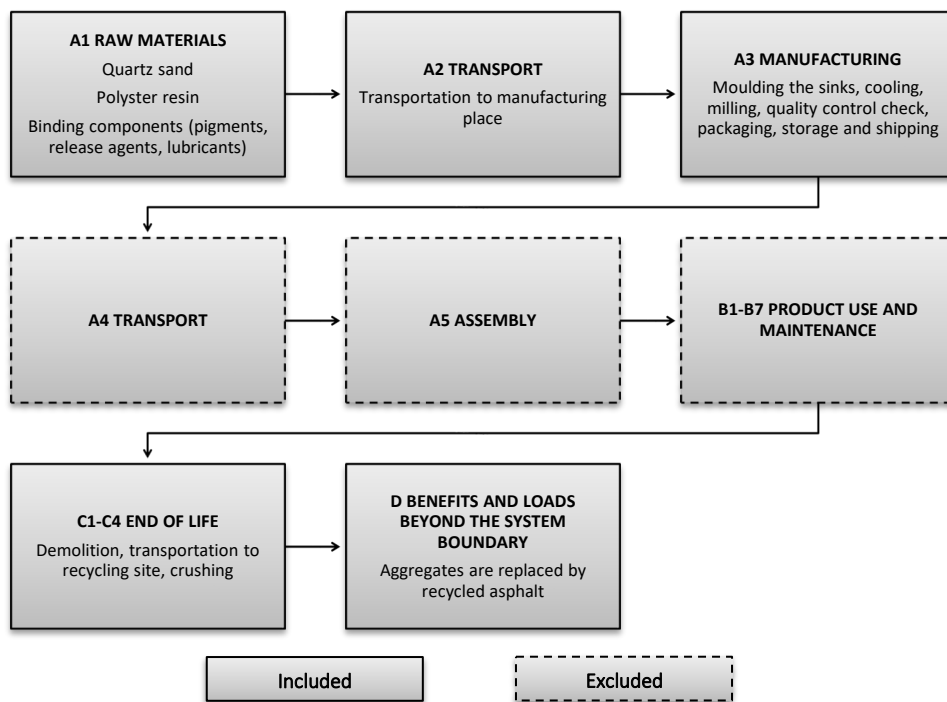
Database(s) and LCA software used: The Ecoinvent database provides the life cycle inventory data for the raw and processed materials obtained from the background system. The used database is Ecoinvent 3.8. The LCA software used is One Click LCA. The EN 15804 reference package used is based on EF 3.0.

Data quality: The foreground data collected internally is based on yearly production amounts and extrapolations of measurements on specific machines and plants. Overall, the data quality can be described as good. The primary data collection has been done thoroughly.

Cut-off criteria: Life cycle inventory data for a minimum of 99% of total material and energy input flows have been included in the life cycle analysis. Although only materials having in summa less than 1% of weight of product were not used in calculations.

Description of system boundaries: Cradle to gate with modules C1–C4 and module D (A1–A3 + C + D)

System diagram:



Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage						End of life stage				Resource recovery stage	
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	x	x	x	MND	MND	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x
Geography	EU	EU	LT	EU	EU	EU	EU	EU	EU	EU	EU	EU	EU	EU	EU	EU	EU
Specific data used	>90%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	<10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Description of the system boundary (X = Included in LCA; MND = Module Not declared; MNR =Module Not Relevant)

LT – Lithuania, EU = European Union

According to Annex 2 of PCR 2019:14 – Construction Products, if the packaging contains more than 5% biogenic carbon, the uptake of this biogenic carbon, as biogenic CO₂, in module A1 shall be balanced out by an equal amount of emission of biogenic CO₂ in module A5. Then module A5 shall, also in EPDs which otherwise have an A1-A3 scope, be included for this “balancing-out reporting”.

Product life cycle

Product stage (A1-A3)

A1: This stage considers the extraction and processing of raw materials.

A2: The raw materials are transported to the manufacturing plant. In this case the model includes road transportation of each raw material.

A3: This stage includes the manufacture of products and packaging. It has considered all the energy consumption and waste generated in the production plant.

Manufacturing process

To start a manufacturing process of composite granite sinks, the SILICSANA material must be prepared from the raw materials (quartz sand, resin, color pigments and other binding components). The prepared mass is poured into the casting mould. When the composite granite mass gets firm, it is removed from the casting mould and is left to get cool temperature. Next step - milling of the sink. After that, the final product is carefully checked by Quality Control specialists. Products, that do not meet the quality requirements can often be repaired. The main goal is to produce as little waste as possible. The pieces declared as rejects, as many as possible are being recycled as waste - shred and used as the material for road construction. Final steps - packaging, storage, and shipping. The products are packed

in cardboard boxes and fixed on the pallets with plastic stretch film. In order to ensure consistently high quality, extensive controls are carried out, starting with the delivery of raw materials and going through the rest stages.

Construction process stage (A4-A5)

This EPD does not cover Construction process stage.

Use stage (B1-B7)

This EPD does not cover Use stage.

Product end of life (C1-C4, D)

C1: Deconstruction, dismantling, demolition

This stage assumes a manual removal of the sink, so no energy or material consumption has been considered in this stage.

C2: Transport of the discarded product to the processing site

It is estimated that there is no mass loss during the use of the product. Therefore, the end-of-life product is assumed to have the same weight as the declared product. Whole end-of-life products are assumed to be sent to recycling facilities. Transportation distance to the closest facility is estimated as 50 km, and the transportation method is lorry, which is the most common.

C3: Waste processing for reuse, recovery and/or recycling

It is assumed that 100% of product is collected and sent to recycling site. Crushing of demolished composite granite kitchen sinks is accounted in C3 stage.

C4: Discharge (disposal)

It is assumed that 0% of products are sent directly to landfill.

Benefits and loads beyond the system boundary (D):

Benefits are assigned to module D for materials and fuels (that have left the system in modules C) that can substitute primary materials or fuels that do not need to be produced.

No loads have been added as material is already crushed and recycled as secondary gravel for the construction of road sub-bases after C3 stage. Benefits accounted for avoiding virgin gravel production.

Content information

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Quartz sand	0,70	0	0
Polyster resin	0,25	0	0
Binding components (pigments, release agents, lubricants)	0,05	0	0
TOTAL	1		
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg of the product
Carboard	0,32	32%	0,309
LLDPE film	0,003	0,3%	0
Euro pallets	0,03	3%	0,046
TOTAL			

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

Compotexa manufactured kitchen sinks comply with Regulation (EC) No 1907/2006 requirements regarding registration, evaluation, authorization and restriction of chemicals (REACH).

Results of the environmental performance indicators

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. Note: it is discouraged to use the results of modules A1-A3 without considering the results of module C when module C is declared.

In order to calculate impact in A1-A3, it is necessary to add A5 module as well.

Mandatory impact category indicators according to EN 15804:2012+A2:2019

Results per declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	2,45E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,69E-03	2,95E-04	0,00E+00	-8,34E-03
GWP-biogenic	kg CO ₂ eq.	5,81E-01	MND	5,81E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,69E-03	2,94E-04	0,00E+00	-8,33E-03
GWP-luluc	kg CO ₂ eq.	3,61E-03	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,12E-22	0,00E+00	0,00E+00	0,00E+00
GWP-total	kg CO ₂ eq.	1,87E+00	MND	5,81E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,73E-06	6,66E-07	0,00E+00	-1,17E-05
ODP	kg CFC 11 eq.	2,64E-07	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,08E-09	1,50E-11	0,00E+00	-6,70E-10
AP	mol H ⁺ eq.	1,02E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,99E-05	1,58E-06	0,00E+00	-5,36E-05
EP-freshwater	kg P eq.	6,82E-05	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,84E-08	3,03E-08	0,00E+00	-4,87E-07
EP-marine	kg N eq.	2,33E-03	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,90E-06	2,20E-07	0,00E+00	-1,15E-05
EP-terrestrial	mol N eq.	2,11E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,51E-05	2,50E-06	0,00E+00	-1,49E-04
POCP	kg NMVOC eq.	7,61E-03	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,08E-05	7,14E-07	0,00E+00	-3,84E-05
ADP-minerals&metals*	kg Sb eq.	2,24E-05	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,10E-08	7,98E-10	0,00E+00	-7,90E-08
ADP-fossil*	MJ	3,99E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,05E-02	6,16E-03	0,00E+00	-1,22E-01
WDP*	m ³	5,95E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,15E-04	1,62E-04	0,00E+00	-1,55E-02
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption															

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Additional mandatory and voluntary impact category indicators

Results per declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	2,45E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,69E-03	2,94E-04	0,00E+00	-8,33E-03

Resource use indicators

Results per declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	5,99E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,94E-04	1,06E-03	0,00E+00	-1,15E-02
PERM	MJ	5,03E+00	MND	5,03E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	1,10E+01	MND	5,03E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,94E-04	1,06E-03	0,00E+00	-1,15E-02
PENRE	MJ	3,39E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,05E-02	6,14E-03	0,00E+00	-1,22E-01
PENRM	MJ	6,08E+00	MND	2,23E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	5,86E+00	0,00E+00	0,00E+00
PENRT	MJ	3,99E+01	MND	2,23E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,05E-02	5,85E+00	0,00E+00	-1,22E-01
SM	kg	3,23E-01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,96E-05	3,36E-06	0,00E+00	1,00E+00
RSF	MJ	5,47E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,97E-07	3,71E-09	0,00E+00	-9,18E-07
NRSF	MJ	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	3,45E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,13E-06	5,11E-06	0,00E+00	-3,75E-04
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water															

¹ This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

Waste indicators

Results per declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	1,01E-01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,34E-05	2,37E-05	0,00E+00	-7,03E-04
Non-hazardous waste disposed	kg	2,44E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,54E-03	1,38E-03	0,00E+00	-2,14E-02
Radioactive waste disposed	kg	6,59E-05	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,71E-07	4,41E-08	0,00E+00	-6,24E-07

Output flow indicators

Results per declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	1,70E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	1,00E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Additional information

Manufacturing energy scenario documentation

Scenario parameter	Value	Source
Residual mix (Lithuania)	0.435 kg CO ₂ e/kWh	Average Lithuanian residual mix of last three last years (2020, 2021 and 2022) has been modelled according to the Association of Issuing Bodies data (https://www.aib-net.org/facts/european-residual-mix). Data sources: ecoinvent 3.8

References

Standards and PCR

ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations Principles and procedures.

ISO 14040:2006 Environmental management. Life cycle assessment. Principles and frameworks.

ISO 14044:2006 Environmental management. Life cycle assessment. Requirements and guidelines.

EN 15804+A2 Sustainability in construction works – Environmental product declarations – Core rules for the product category of construction products.

Product Category Rules (PCR): PCR 2019:14 – Construction Products (EN 15804+A2) – version 1.3.3 the UN CPC code 376 “Monumental or building stone and articles thereof” among others

General Programme Instructions of the international EPD[®] system. Version 4.0.

Data references:

One Click LCA tool

Ecoinvent 3.8 database

