ENVIRONMENTAL PRODUCT DECLARATION

as per *ISO 14025* and *EN 15804+A2*

Owner of the Declaration	BLANCO GmbH + Co KG
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-BLA-20250685-IBC1-EN
Issue date	06.03.2026
Valid to	05.03.2031

Silgranit Sinks

BLANCO GmbH + Co KG

www.ibu-epd.com | https://epd-online.com

BLANCO

1. General Information

BLANCO GmbH + Co KG

Programme holder

IBU – Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-BLA-20250685-IBC1-EN

This declaration is based on the product category rules:

Artificial stone, 01.08.2021
(PCR checked and approved by the SVR)

Issue date

06.03.2026

Valid to

05.03.2031

Dipl.-Ing. Hans Peters
(Chairman of Institut Bauen und Umwelt e.V.)

Florian Pronold
(Managing Director Institut Bauen und Umwelt e.V.)

Silgranit Sinks

Owner of the declaration

BLANCO GmbH + Co KG
Flehinger Straße 59
75038 Oberderdingen
Germany

Declared product / declared unit

1 kg Silgranit Sinks

Scope:

The EPD declares an average Silgranit sink from BLANCO GmbH + Co KG. The data collection refers to the year 2024 on the sites in Sinsheim, Germany and Most, Czech Republic.

- Sinsheim
  In der Au 20
  74889 Sinsheim
  Germany
- Most
  Havraň 166
  435 01 Havraň/Most
  Czech Republic

The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as *EN 15804*.

Verification

The standard EN 15804 serves as the core PCR
Independent verification of the declaration and data according to ISO 14025:2011
☐ internally ☒ externally

Manfred Russ,
(Independent verifier)

BLANCO

2. Product

2.1 Product description/Product definition

Silgranit is a granite composite material which mainly consists of quartz sand, the strongest component of granite, developed for everyday kitchen life and inspired by nature's color palette.

BLANCO offered the first composite sink in 1981 and has been continuously developing it ever since.

Silgranit has a stone-like, slightly rough touch and feel, is resistant to scratches, impact, acid, heat and hot water. The colors developed by BLANCO -black, anthracite, rock grey, white, tartufo, coffee, soft white, volcano grey, and alu metallic, are carefully selected to harmoniously complement different tastes, kitchen styles and interior design concepts. Silgranit comes in an array of shapes and sizes and for different installation types: Sinks with a standard, extra-long or compact draining board area, with one or two bowls, small, large or XXL in size, single bowls, double bowls, bowls with integrated ledge for additional functionality, apron sinks and bowls with stainless-steel rim.

They fit into cabinet sizes from 40 to 90 cm and can be installed from above, undermount, flushmount or flush undermount.

IN EPD INCLUDED **BLANCO SINK FAMILY**	IN EPD INCLUDED **SINK MODELS**
BLANCORONDO	45
BLANCODELTA II	9E; 9E-F
METRA	45S Compact; 45 S; 5S; 6; 6S Compact; 6S; XL 6S; 8S; 9; 45S-F; 5S-F; 6-F; 6S-F; XL 6S-F; 45S RH; 45S LH; XL 6S RH; XL 6S LH; 6S RH; 6S LH; 8S RH; 8S LH
SUBLINE	160-U; 320-U; 400-U; 500-U; 700-U; 800-U; 500-IF STFR; 500-IF/A STFR; 340/160-U LH; 340/160-U RH; 350/350-U SG; 430/270-U LH; 480/320-U LH; 320-F; 400-F; 500-F; 340/160-F LH; 700-U LEVEL; 500-U INTEGRAL
DALAGO	45; 5; 6; 8; 45-F; 5-F; 6-F; 8-F
ZIA	40S; 45S; 45S Compact; 45SL; 5S; 6S; XL 6S; XL 6S Compact; 8S; 9; 9E; 8S RH; 8S LH; 6S RH; 6S LH; 45SL RH; 45SL LH
LEXA	LEXA 8
ZENAR	45S LH; 45S-F LH; 45S RH; 45S-F RH; 5S RH; XL 6S RH; XL 6S LH; XL 6S Compact RH; 5S-F RH; XL 6S-F RH; XL 6S-F LH
FAVOS	45S, 45S mini, 6S
NAYA	45; 5; 6; 8 LH; 8S RH; 8S LH; XL 9; 6-F
PLEON	5; 6; 6 Split LH; 8; 9 RH; 9 LH; 6-F; 8-F
ELON	45S; XL 6S; XL 8S; XL 6S-F
LEGRA	45S; 6; 6S; 6S Compact; XL 6S; 8 LH; 8S; 6S RH; XL 6S LH; 8S RH; 8S LH; 45S RH; 45S LH
SONA	45S; 5S; 6S; XL 6S; 8S; 8S RH; 8S LH
ROTAN	400-U; 500-U; 700-U; 340/160-U LH
ETAGON	500-U; 700-U; 6; 8; 500-U-INTEGRAL; 500-F; 6-F; XL 6S; XL 6S-F
AXIA III	45S; 5S; 6S RH; 6S LH; XL 6S; 45S-F; 5S-F; 6S-F RH; 6S-F LH; XL 6S-F
COLLECTIS	6S RH
FAVUM	45S; XL 6S
FARON	XL 6S
VINTERA	XL 9-UF Apron
TAIDAN	500-U; 340/160-U
ADIRA	45S; 45S-F; 6S; 6S-F; 6S RH; 6S LH; XL 6S; XL 6S-F
PRECIS	630-U
ENILIS	700-U

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 product needs a declaration of performance taking into consideration *EN 13310:2003 Kitchen Sinks* and the CE-marking. For the application and use the respective national provisions apply.

2.2 Application

Silgranit kitchen sinks are used for everyday tasks in the kitchen, including washing dishes, cleaning food, and draining water. They consist of high-quality granite composite material known for its exceptional durability, the ease of care and its stone-like, slightly rough touch and feel. With a selection of nine curated colors in neutral shades and natural hues, along with a variety of shapes, sizes, and installation options, it seamlessly complements diverse kitchen layouts and designs.

2.3 Technical Data

The properties relevant to the product are as follows:

Name	Value	Unit
Density acc. to DIN EN ISO 1183-1, -2	2.0	g/cm³
Impact Strength acc. to ISO 179-1	2.6	kJ/m²
Modulus of Elasticity acc. to ISO 527-1	15730	N/mm²
Barcol hardness acc. to EN 59	80	-
Glass transition temperature via thermomechanical analysis (dilatometry)	110	°C
Coefficient of linear expansion acc. to DIN 53752	34	µm/m*K
Abrasion resistance acc. to DIN 53754	11.5	Mg/100U
Hot cold cycle resistance acc. to EN 13310	>1000	cycles

Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to *EN 13310:2003 Kitchen Sinks*:

Essential characteristics	Clauses of this European Standard related to Essential Characteristics	Notes
Cleanability	4.3	Passed
Load resistance (for wall-hung sinks)	4.8	NPD no performance determined
Durability	4.10	Passed

2.4 Delivery status

Typically, the sink is delivered in a cardboard box to ensure safe transportation from the production sites to the installation site. Protective strips made from fiber castings or expanded polystyrene ensure that the product is securely fixed in the cardboard box to absorb impacts during transport. The material for the protective strips and the weight of the packaging varies depending on the sink model and the required box size.
The average weight of the packaging materials across the models covered by the EPD is 0.272 kg per 1 kg of Silgranit sink (declared unit).

2.5 Base materials/Ancillary materials

Silgranit is a composite material consisting mainly of quartz sand incorporated in an acrylic matrix. Other ingredients are color pigments, specific BLANCO patented components and functional minerals.

The exact composition of the composite material depends on the color variant. The mass percentage of the main components across all colors representing BLANCO's composite sink portfolio is listed below.

Material composition of the Silgranit sinks

Name	Value	Unit
Quartz sand A	up to 66	%
Quartz sand B	up to 20	%
Polyacrylate	up to 23	%
Pigments and additives	up to 9	%

This product/article/at least one partial article contains substances listed in the *SVHC candidate list* (date 25.08.2025) exceeding 0.1 percentage by mass: no.

This product/article/at least one partial article 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: no.

Biocide products were added to this construction product or it has been treated with biocide products (this then concerns a treated product as defined by the *(EU) Ordinance on Biocide Products No. 528/2012)*: no

2.6 Manufacture

Silgranit sinks/declared product group is manufactured in four main processes, including mixing, molding, milling and final assembly. The manufacturing takes place at BLANCO GmbH + Co KG. production facilities in Sinsheim, Germany and Most, Czech Republic. The overview of these processes is shown below.

In the mixing process, the acrylic material is mixed with various additives to form a so-called syrup. In this process, electricity and thermal energy are used for the mixing equipment. The other casting compounds (quartz sand, pigments and further additives) are stirred into the syrup without thermal energy supply. In the next production step, i.e. molding, the molding compound is filled into the molding cavity. Thermal energy supply and cooling water are required to control the temperature of the molding tools. The raw sink is subsequently removed from the mold cavity and undergoes a quality examination. The raw sink edges are milled to its final dimensions in a milling machine. In addition, the openings for overflow and drain are made. Thereby, the sprue is removed. Milling dust is removed from the milling machine by an exhaust system, separated from the exhaust air, and collected for waste treatment. Other production waste in this production step is scrap from sprues and scrap from reject sinks. At the final assembly, the product is washed in an automated washing line to remove dust and other residue from the product. The washing water is heated and recirculated. As a last step of the final assembly and after the final inspection, the sinks are transported to the logistics centre by truck. At the logistics centre, they are placed into the final product packaging and delivered to the costomers.

2.7 Environment and health during manufacturing

Continuous improvement measures are developed and implemented as part of the energy and environmental management system at BLANCO. In particular, the exhaust heat from production is used, which is generated during the manufacture of sinks, to heat up the buildings. To further increase efficiency, a recovery system was installed in the production ventilation systems to keep energy consumption as low as possible. This air exchange system is designed to partially re-use filtered air to reduce energy cost while ensuring safety for the employees. The focus is on optimizing operational areas and processes to improve the environment and the use of resources and energy in order to promote sustainable and efficient processes. The measures are centrally documented, recorded in a list of measures and regularly reviewed. In addition, the production plant Sinsheim site is certified according to *ISO 14001* and *ISO 50001*. The Most site is also certified according to *ISO 50001* and is expected to receive *ISO 14001* certification by 2027.

2.8 Product processing/Installation

Kitchen sinks can be installed in various ways:

- Inset: mounted from above with the edge placed on top of the worktop

- Flushmount: installed completely flush from above, ensuring the edge is level with the worktop
- Undermount: installed from below, attached beneath the worktop
- Flush undermount: installed from below, the worktop is carefully cut so that the edge of the sink and the bottom of the worktop form a seamless, level surface.

2.9 Packaging

Materials used for packaging can be classified and recycled by type. The subsequent list provides the corresponding *EWC* (European Waste Catalogue) waste code numbers:

- Cardboard: EWC 15 01 01
- Plastic packaging: EWC 15 01 02

2.10 Condition of use

The material is mechanically stable and chemically inert, meaning that it does not change over time when used as intended.

2.11 Environment and health during use

The product has been tested for food safety and complies with the legal requirements of the *Regulation (EU) No 10/2011* and *Art. 3, Art. 11(5), Art. 15 and Art. 17 of the Regulation (EU) No 1935/2004* as amended. The total migration, as well as the specific migrations, are below the legal limits if applied according to the specifications. The test was carried out in accordance with *Regulation (EU) No. 10/2011*. The raw materials and additives used in the material Silgranit correspond to the *Regulation (EU) No. 10/2011*.

2.12 Reference service life

The actual service life primarily depends on the lifespan of the unit it is installed, e.g. of the kitchen, and further the load and overall usage. A reference service life is not determined. Relevant ageing processes are not known.

2.13 Extraordinary effects

Fire

No fire performance declaration is necessary for this type of product according to the applied ISO norm.

Fire protection

No fire protection declaration is necessary for this type of product according to the applied ISO norm.

Name	Value	Unit
Building material class	-	-
Burning droplets	-	-
Smoke gas development	-	-

Water

No hazardous water contaminants are washed out.

Mechanical destruction

Mechanical destruction may cause sharp edges.

2.14 Re-use phase

In general, it is possible to remove the sink without damage and to reuse it. The sink can also be recycled as material or incinerated with energy recovery.

2.15 Disposal

Waste disposal is carried out in accordance with the *European waste catalogue*, specifying the following waste codes:

- *EWC 17 01 07*
  Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
- *EWC 17 09 04*
  Mixed construction and demolition waste
- *EWC 16 03 04*
  Inorganic waste, except for waste covered by 160303

At the end of its lifetime, the sink is usually dismantled manually or with electrical tools, collected and transported to recycling facilities. Commonly, such sinks are disposed of under AVV 17 01 07 ('Mixtures of concrete, bricks, tiles and ceramics') or AVV 17 09 04 ('Mixed construction and demolition waste'). Here, they are fully processed, with the composite material crushed and possibly reused as secondary gravel for road construction, avoiding the need for primary material. Alternatively, they can be treated in a waste incineration plant, where electricity and thermal energy can be recovered from the organic components. For both disposal routes, no material is landfilled.

2.16 Further information

Extensive information and recommendations are available at: www.blanco.com

3. LCA: Calculation rules

3.1 Declared Unit

The declared unit is 1 kg Silgranit sink and the corresponding packaging (0.245 kg cardboard + 0.027 kg EPS).

Declared unit and mass reference

Name	Value	Unit
Declared unit	1	kg
Gross density	2000	kg/m^3

Averaging of all produced Silgranit sink shapes and sizes, colors and operational data from two production sites in Sinsheim, Germany, and Most, Czech Republic, was applied. The average represents the Silgranit portfolio produced at the two production sites in 2024 and is the declared product.
The declared unit allows to calculate LCA results for specific sink models by multiplying the LCA results per declared unit by the product mass of the corresponding sink model. As shown in the sensitivity analysis chapter 6, the robustness of the results is given.

3.2 System boundary

The life cycle assessment of an average Silgranit sink that is produced by BLANCO refers to a cradle to gate analysis of the environmental impacts with modules C1-C4 and module D (A1-A3 + C + D).
The following life cycle phases are part of the analysis:

Module A1-A3

Module A1 covers the provision of precursors for the manufacturing of the Silgranit sink material. Module A2 includes their transportation to the manufacturer. Module A3 concerns the Silgranit sink manufacturing processes, including process energy, the disposal of production residues (e.g. incineration of disposed solvents with energy recovery), as well as the production of sink packaging. The production of packaging materials with biogenic carbon content is modelled in A3. Since Module A5 is not declared, the uptake of biogenic carbon in Module A3 is not taken into account, as no permanent incorporation occurs. The share of secondary material in cardboard packaging materials is 85 %.

Module C1

Manual removal was assumed for BLANCO Silgranit sinks.

Referring energy demand is considered to be negligible, resulting in a declaration of '0' in module C1.

Module C2
This module includes the transport to waste treatment. In this case, transport by truck over a transport distance of 35 km is assumed.

Module C3
The end-of-waste is reached after shredding of the sink material in module C3.

Module C4
The applied scenario declares the recycling of the sinks, therefore no environmental impacts are to be expected from waste processing of the products in module C4.

Module D
This module covers the credits for the shredded sink material. This material can be used as road substructure and could substitute primary produced gravel.

3.3 Estimates and assumptions

The electricity mix used in module A3 for the production of the declared product in Sinsheim, Germany and Most, Czech Republic is individually adapted according to information from the energy supplier as well as guarantees of origin. (Sinsheim: 0.047 kg CO_2e/kWh; Most: 0.55 kg CO_2e/kWh)

For the materials where no sufficiently representative LCA background datasets were available, assumptions and approximations were made based on stoichiometry.

For transportation, diesel-powered trucks of EURO Class 6 are assumed. They have a payload capacity of 28 to 32 tons (uniformly chosen payload value: 22 tons), and the route distribution consists of 56 % highway, 28 % country road, and 16 % urban traffic. The load utilization of the trucks varies between 21% and 100% depending on the transported goods, and the transport distance ranges from 20 to 4000 km. The transport distance for the Silgranit material to the recycling is assumed to be 35 km.

3.4 Cut-off criteria

All known inputs and outputs related to the products were taken into account. Equipment, machinery and infrastructure required for manufacturing were not considered.
No product-specific data could be collected for the internal transport packaging like pallets, steel straps, and polyethylene stretch film, as well as for cooling water. After a conservative plausibility assessment, the aforementioned materials fall under the criteria defined in *EN 15804*, section 6.3.6.

3.5 Background data

The life cycle assessment model is created using the *LCA for Experts* software system version 10.9.1.17 from *Sphera Solutions GmbH*. The database version *CUP2025.1* is utilized. This database provides the inventory data for raw and auxiliary materials as well as transport processes sourced from the background system.

3.6 Data quality

The data quality of the operating data and background data is assessed below. The evaluation is based on completeness, accuracy, consistency, reproducibility, as well as geographical, technical and temporal representativeness.
All processes in the foreground system are checked for a closed mass balance as well as for complete recording of emissions. Completeness in the foreground system is thus considered high. Background data used, all derived from the LCA for Experts database, are documented regarding completeness in their respective datasets.
The majority of the foreground data used has been measured or calculated. Therefore, the accuracy of the data in the foreground system can be considered high. Background data used, all derived from the LCA for Experts database, are documented regarding accuracy in their respective datasets.
All collected data from the foreground system have been gathered at the same level of detail. All data from the background system originate from the same LCA for Experts database. This ensures the consistency of the data. The input and output flows of all mass and energy streams, as well as the associated processes and datasets, are recorded and disclosed in a transparent manner. With this information, it is possible to reproduce the results of this study while adhering to the method and using the same datasets: reproducibility is ensured.

3.7 Period under review

The primary data provided by BLANCO GmbH + Co KG for the mass and energy flows related to the product Silgranit sink refer to the year 2024. The data in the background system come from the *LCA for Experts database 2025.1* and are representative for the specified period, ensuring temporal representativeness.

3.8 Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product´s lifespan: Global

3.9 Allocation

No further by-products or co-products arise from the life cycle under consideration and the associated production processes. This means that no allocations had to be made. To make credits and burdens outside the product system visible, a system boundary expansion is carried out within Module D. This concerns the Silgranit material scrap (from production and disposed sinks after their use). It can be used as road substructure and replace primary gravel. Solvents used to wash the production equipment and therefore containing Silgranit residues are used for energy recovery, which generates electricity and heat in a combined heat and power (CHP) process and substitutes them elsewhere.

3.10 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken into account. *LCA for Experts* software and database system from *Sphera Solution GmbH*.
LCA for Experts Version: 10.9.1.17; Database: CUP2025.1

4. LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon
The biogenic carbon content of the product and its packaging is specified in the following table.

Information on describing the biogenic carbon content at factory gate

Name	Value	Unit
Biogenic carbon content in product	0.0005	kg C
Biogenic carbon content in accompanying packaging	0.11	kg C

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO_2.

Installation into building (A5)

As module A5 is not declared, the analysed packaging is quantified on a material-specific basis and given as technical scenario information.

Name	Value	Unit
Cardboard	0.245	kg
EPS	0.027	kg

End of life (C1-C4)

Name	Value	Unit
Recycling	1	kg

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Module D covers reuse, recovery and/or recycling potential. These are stated as net flows and benefits/burdens. Corresponding benefits/burdens are only attributed to the primary material components.

Name	Value
Net flow for substitution of gravel (A3)	0.15
Net flow for substitution of gravel (C3)	1
Net flow produced thermal energy (A3)	0.043
Net flow produced electric energy (A3)	0.099

BLANCO

5. LCA: Results

The results of the impact assessment of the selected environmental impacts, resource use, waste and other output flows for 1 kg of Silgranit sink manufactured in Sinsheim and Most are shown below.
All declared life cycle stages are marked with an 'X' in Table 1, while all non-declared stages are marked with 'MND' (modules B3, B4 and B5 are not relevant and are therefore marked with 'MNR').

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction 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
X	X	X	MND	MND	MND	MND	MNR	MNR	MNR	MND	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 kg Silgranit Sinks

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Global Warming Potential total (GWP-total)	kg CO_2 eq	2.2E+00	0	2.97E-03	2.94E-02	0	-1.3E-02
Global Warming Potential fossil fuels (GWP-fossil)	kg CO_2 eq	2.1E+00	0	2.93E-03	2.9E-02	0	-1.3E-02
Global Warming Potential biogenic (GWP-biogenic)	kg CO_2 eq	9.18E-02	0	5.48E-06	2.15E-03	0	-6.07E-06
Global Warming Potential luluc (GWP-luluc)	kg CO_2 eq	1.21E-02	0	3.08E-05	9.56E-05	0	-2.66E-05
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC11 eq	2.81E-11	0	4.97E-16	6.6E-13	0	-1.03E-13
Acidification potential of land and water (AP)	mol H^+ eq	4.93E-03	0	4.52E-06	6.35E-05	0	-2.35E-05
Eutrophication potential aquatic freshwater (EP-freshwater)	kg P eq	9.59E-06	0	8.07E-09	6.2E-08	0	-1.42E-08
Eutrophication potential aquatic marine (EP-marine)	kg N eq	1.43E-03	0	1.82E-06	1.52E-05	0	-7.78E-06
Eutrophication potential terrestrial (EP-terrestrial)	mol N eq	1.49E-02	0	1.94E-05	1.71E-04	0	-8.57E-05
Formation potential of tropospheric ozone photochemical oxidants (POCP)	kg NMVOC eq	4.62E-03	0	4.05E-06	3.78E-05	0	-2.09E-05
Abiotic depletion potential for non fossil resources (ADPE)	kg Sb eq	2.09E-04	0	1.99E-10	6.02E-09	0	-1.18E-09
Abiotic depletion potential for fossil resources (ADPF)	MJ	4.14E+01	0	3.84E-02	5.91E-01	0	-2.2E-01
Water use (WDP)	m^3 world eq deprived	1.83E-01	0	1.37E-05	7.26E-03	0	-1.2E-03

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 kg Silgranit Sinks

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Renewable primary energy as energy carrier (PERE)	MJ	1.37E+01	0	2.89E-03	4.04E-01	0	-6.48E-02
Renewable primary energy resources as material utilization (PERM)	MJ	5.84E-01	0	0	0	0	0
Total use of renewable primary energy resources (PERT)	MJ	1.43E+01	0	2.89E-03	4.04E-01	0	-6.48E-02
Non renewable primary energy as energy carrier (PENRE)	MJ	3.49E+01	0	3.84E-02	6.25E+00	0	-2.2E-01
Non renewable primary energy as material utilization (PENRM)	MJ	6.53E+00	0	0	-5.66E+00	0	0
Total use of non renewable primary energy resources (PENRT)	MJ	4.14E+01	0	3.84E-02	5.91E-01	0	-2.2E-01
Use of secondary material (SM)	kg	2.08E-01	0	0	0	0	1.15E+00
Use of renewable secondary fuels (RSF)	MJ	0	0	0	0	0	0
Use of non renewable secondary fuels (NRSF)	MJ	0	0	0	0	0	0
Use of net fresh water (FW)	m^3	9.33E-03	0	1.43E-06	3.14E-04	0	-5.09E-05

RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2: 1 kg Silgranit Sinks

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Hazardous waste disposed (HWD)	kg	1.69E-06	0	1.54E-12	7.72E-10	0	-1.22E-10
Non hazardous waste disposed (NHWD)	kg	1.37E-01	0	5.36E-06	4.58E-04	0	-4.8E-02
Radioactive waste disposed (RWD)	kg	5.48E-04	0	7.24E-08	9.33E-05	0	-1.43E-05
Components for re-use (CRU)	kg	0	0	0	0	0	0
Materials for recycling (MFR)	kg	1.5E-01	0	0	1E+00	0	0
Materials for energy recovery (MER)	kg	0	0	0	0	0	0
Exported electrical energy (EEE)	MJ	4.25E-02	0	0	0	0	0
Exported thermal energy (EET)	MJ	9.85E-02	0	0	0	0	0

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: 1 kg Silgranit Sinks

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Incidence of disease due to PM emissions (PM)	Disease	5.42E-08	0	4.17E-11	5.25E-10	0	-7.86E-10

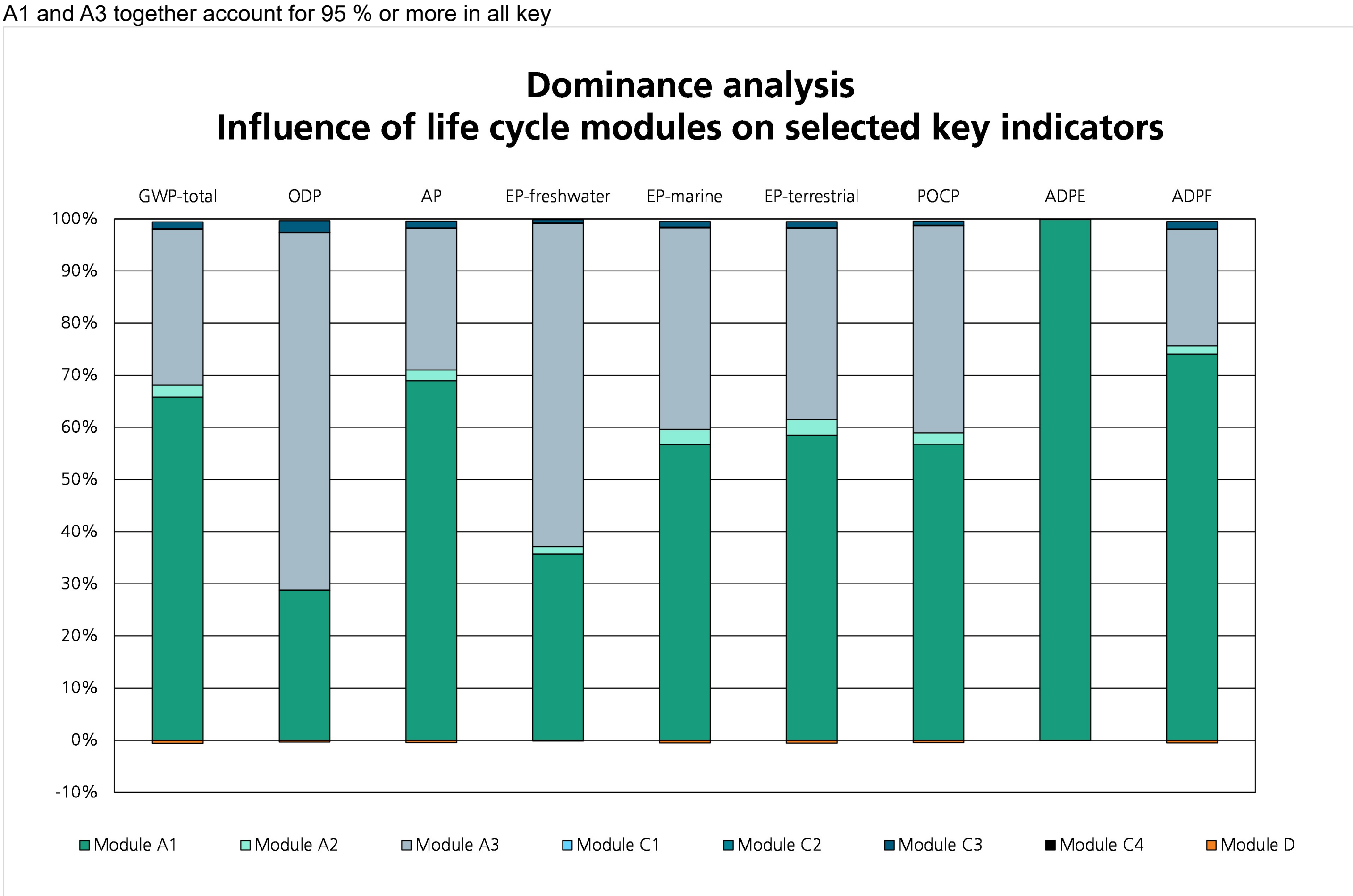
	incidence						
Human exposure efficiency relative to U235 (IR)	kBq U235 eq	5.92E-02	0	1.04E-05	1.54E-02	0	-2.36E-03
Comparative toxic unit for ecosystems (ETP-fw)	CTUe	2.01E+01	0	4.99E-02	9.98E-02	0	-4.14E-02
Comparative toxic unit for humans (carcinogenic) (HTP-c)	CTUh	5.26E-10	0	6.73E-13	9.41E-12	0	-2.36E-12
Comparative toxic unit for humans (noncarcinogenic) (HTP-nc)	CTUh	1.55E-08	0	3.76E-11	1.98E-10	0	-5.44E-11
Soil quality index (SQP)	SQP	1.72E+01	0	1.7E-02	2.37E-01	0	-4.17E-02

Disclaimer 1 – for the indicator “Potential Human exposure efficiency relative to U235”. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “potential soil quality index”. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

6. LCA: Interpretation

Module A1 has a relevant influence (ODP and EP-freshwater) to a significant influence (GWP-total, AP, EP-marine, EP-terrestrial, POCP, ADPE and ADPF) on the overall impact of the Silgranit sink. Module A3 has a significant influence on the indicator OPD and EP-freshwater, a relevant influence on the indicator AP, EP-marine, EP-terrestrial, POCP and WDP, and some influence on the indicators GWP-total and ADPF. Module A1 and A3 together account for 95 % or more in all key indicators considered in the dominance analysis. The transport of the raw materials to the manufacturer (A2), the End-of-life (C1, C2, C3 and C4) and credits and debits in the next product system (D) only have a negligible influence on the different indicators with the exception of a little influence of A2 on GWP-total, EP-marine and EP-terrestrial as well as C3 on WDP.



Modules A1 and A3 are examined in more detail, and the processes with the greatest influence are identified. When looking closely at the indicator GWP-total divided by different processes, it becomes evident that the main influence is caused by acrylate as well as pigments and additives in the raw material extraction (Module A1). Across all key indicators, these three components account for at least 85 % of the impact in A1. In Module A3, the results are dominated by the energy required for manufacturing, i.e., electricity and thermal energy for machines and process heat, and the packaging materials. The disposal of production wastes accounts for a low contribution in the key impact categories.
For the EPD, a representative average for the different shapes of the sink and colors was built. The results in the table are related to the declared unit and, therefore, valid for the different sink families.

Key indicator	Unit	Representative average	Minimum		Maximum	
			absolute	relative	absolute	relative
GWP-total	kg CO2 eq.	2.20E+00	2.02E+00	92%	2.35E+00	107%
OPD	kg CFC 11 eq.	2.80E-11	2.43E-11	87%	3.18E-11	114%
AP	mol H+ eq.	4.91E-03	4.02E-03	82%	5.64E-03	115%
EP-freshwater	kg P eq.	9.58E-06	8.79E-06	92%	1.02E-05	106%
EP-marine	kg N eq.	1.43E-03	1.28E-03	90%	1.53E-03	107%
EP-terrestrial	mol N eq.	1.48E-02	1.31E-02	89%	1.61E-02	109%
POCP	kg NMVOC eq.	4.60E-03	4.17E-03	91%	5.07E-03	110%
ADPE	kg Sb eq.	2.09E-04	6.07E-06	3%	1.26E-03	604%
ADPF	MJ	4.12E+01	3.92E+01	95%	4.43E+01	108%

However, the color has an impact on the results. The results for modules A1-A3 are shown in the table above. For the key indicators the values were calculated not only for the representative average, but also for each of the colors. On the basis of these results, the minimum and maximum value was determined for each key indicator and put into relation to the representative average. Apart from ADPE, for all key indicators the relative deviation for the single colors from the representative average is lower than 18 %. The minimum value is associated with the color 'alu metallic' in most key indicators. The maximum value is associated with 'black' or 'white' in most key indicators. For the ADPE the relative difference between the colors is very high, but the absolute value of the indicator in total is low.

7. Requisite evidence

No additional evidences are required.

8. References

CEN/TR 15941 CEN/TR 15941:2010-03 Nachhaltigkeit von Bauwerken - Umweltproduktdeklarationen - Methoden für Auswahl und Verwendung von generischen Daten; Deutsche Fassung (CEN/TR 15941:2010)[MI1]

DepV
Verordnung über Deponien und Langzeitlager (Deponieverordnung – DepV). Bundesministerium der Justiz, 27.04.2009

DIN EN ISO 1183-1
Plastics - Methods for determining the density of non-cellular plastics - Part 1: Immersion method, liquid pycnometer method and titration method (ISO 1183-1:2019, Corrected version 2019-05); German version EN ISO 1183-1:2019

DIN EN 13310:2019-02
Kitchen sinks - Functional requirements and test methods; German version EN 13310:2015+A1:2018

DIN 53752
Testing of plastics; determination of the coefficient of linear thermal expansion

DIN 53754
Testing of plastics; determination of abrasion, abrasive disk method

EN 15804+A2 CSN EN 15804+A2: 2020-03
Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products EN 15804:2012+A2:2019

EN 59
Glass reinforced plastics - Determination of indentation hardness by means of a Barcol hardness tester

EWC (European Waste Catalogue)
2000/532/EC: Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (notified under document number C(2000) 1147) (Text with EEA relevance), Official Journal of the European Communities, L 226/3, 06.09.2000

ISO 179-1
Plastics - Determination of Charpy impact properties - Part 1: Non-instrumented impact test (ISO 179-1:2010)

ISO 14001:2015-09
Environmental management systems - Requirements with guidance for use

ISO 14044 DIN EN ISO 14044:2006-10
Environmental management - Life cycle assessment - Requirements and guidelines (ISO 14044:2006); German and English version EN ISO 14044:2006

ISO 14025 DIN EN ISO 14025:2011-10
Environmental labels and declarations - Type III environmental declarations - Principles and procedures (ISO 14025:2006); German and English version EN ISO 14025:2011

ISO 14040 DIN EN ISO 14040:2009-11
Environmental management - Life cycle assessment - Principles and framework (ISO 14040:2006); German and English version EN ISO 14040:2006

ISO 50001:2018-08
Energy management systems - Requirements with guidance for use

ISO 527-1
Plastics - Determination of tensile properties - Part 1: General principles (ISO 527-1:2019

LCA for Experts
LCA for Experts Software System and Database for Life Cycle Engineering, Software Version 10.9.1.17, Managed LCA Content Database Version 2025.1, Sphera Solutions GmbH, Leinfelden-Echterdingen, 2025

PCR Part A
Product Category Rules for Building-Related Products and Services. Part A: Calculation rules for the life cycle assessment and requirements on the project report according to EN 15804+A2:2019, Version 1.4. Berlin: Institut Bauen und Umwelt e.V. (Hrsg.), https://ibu-epd.com/, 15.04.2024

PCR Part B
PCR Guidance-Texts for Building-Related Products and Services. Part B: Requirements for the EPD for Artificial stone, Version 8. Berlin: Institut Bauen und Umwelt e.V. (Hrsg.), www.ibu-epd.com, 01.08.2021

Regulation (EU) No 10/2011
Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food Text with EEA relevance, Official Journal of the European Union, L 12/1, 15.01.2011

Regulation (EU) No 1935/2004
Regulation (EU) No 1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food and repealing Directives 80/590/EEC and 89/109/EEC, Official Journal of the European Union, L 338/4, 13.11.20041

Regulation (EU) No 305/2011 (CPR)
Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC, Official Journal of the European Union, L 88/5, 04.04.2011

Regulation (EU) No 528/2012
Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products Text with EEA relevance, Official Journal of the European Union, L 167/1, 27.60.2012

SVHC candidate list
European Chemicals Agency (ECHA), Candidate List of substances of very high concern for Authorisation, version 25.08.2025, https://echa.europa.eu/de/substances-restricted-under-reach

Publisher

Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

+49 (0)30 3087748- 0
info@ibu-epd.com
www.ibu-epd.com

Programme holder

Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

+49 (0)30 3087748- 0
info@ibu-epd.com
www.ibu-epd.com

Author of the Life Cycle Assessment

Fraunhofer-Institut für Bauphysik, Abt. Ganzheitliche Bilanzierung
Nobelstr. 12
70569 Stuttgart
Germany

0711 / 970 3151
gabi@ibp.fraunhofer.de
www.ibp.fraunhofer.de

Owner of the Declaration

BLANCO GmbH + Co KG
Flehinger Straße 59
75038 Oberderdingen
Germany

+49 7045 44-81100
info@blanco.de
www.blanco.de