



Akron Countertop

ENVIRONMENTAL PRODUCT DECLARATION

*In accordance with the UNE-EN ISO 14025:2010 and UNE-EN 15804
standards: EN 15804:2012 + A2:2019/AC:2021*

Akron Countertop


**From
ACQUABELLA**

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Program Information

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Address	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website	www.environdec.com
Email:	info@environdec.com

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<p>The PCR review was conducted by: The Technical Committee of the International EPD® System. Lista completa de miembros disponible en www.environdec.com (Members of the Committee were requested to state any potential conflict of interest with the PCR moderator or PCR committee and if so were excused from the review)</p> <p>Chair: No chair Appointed. Contact via info@environdec.com</p>	
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<p>Manufacturer Information:</p> <p><u>Owner of the EPD:</u> Construplas S.L.U <u>Address:</u> Polígono Belcaire Calle C 1201, La Vall d'Uixò (Castellón) <u>Contact:</u> Lidia Puig (l.puig@construplas.com) <u>Web:</u> https://www.acquabella.com</p>	
<p>Development of the EPD: SGS TECNOS S.A.U </p>	

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EPDs within the same product category but registered in different EPD programs, 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 based on fully aligned PCR or PCR versions; cover products with identical functions, technical performance and use (e.g. identical declared/functional units); have system boundaries and equivalent data descriptions; implement data quality requirements, data collection methods and equivalent allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content statements; and be valid at the time of comparison. For more information on comparability, see EN 15804 and ISO 14025.

Overview

Manufacturer: Construplas S.L.U
Polígono Belcaire Calle C 1201,
12600, La Vall d'Uixò (Castellón)
Spain

Company overview: Construplas, S.L.U. is a company dedicated to the design, manufacture and sale of custom-made shower trays and bathroom furniture, with a presence in more than 40 countries, a leader in the design of bathroom products and capable of adapting, year after year, to the demands of a dynamic and changing market. Shower trays, bathtubs, worktops, floor-standing and countertop washbasins, panels, storage units and shower columns are made only of innovative and extremely resistant materials.

The company follows basic lines of action determined by its values and reinforced by its "mission" and "vision", which respectively identify its raison d'être and the future for which it competes.

Mission:

We bring your ideas to life with innovative, tailor-made bathroom solutions that help create spaces of well-being. Innovation and sustainability lead the way, but always keeping the focus on what matters most: people and their trust in us.

Vision:

We want to be leaders in comprehensive solutions for bathroom equipment that provide unique experiences of comfort, design and safety. We seek to move forward hand in hand with the most sustainable technology, with a firm commitment to quality and taking into account the needs of all the people who are part of our brand.

Values:

The values that distinguish us are:

- Professionalism: We achieve 100% custom-made bathroom products with a rigorous, accurate and reliable industrial approach thanks to a team that demonstrates a deep respect for their work and a high commitment to the responsibility of meeting the goals set.
- Improvement: We are able to improve our relationships, our products and our service every day to achieve excellence with a global mentality, taking care of each of the phases of the production process, from the relationship with the supplier companies to the treatment with our customers, also taking care of the well-being of the people who are part of Construplas and the environment in which we find ourselves.

- **Quality:** Acquabella has acquired a responsible attitude towards product quality and customer service. This quality responds to the commitment of the entire team and the collaborating companies to achieve the best product and meet the demands of the public, maintaining a relationship of quality and trust with our stakeholders.
- **Creativity:** Innovation is transversal at Acquabella, it is the food that nourishes us. Processes, products, formulations, packaging, display methods, everything can be changed, improved and adapted to the needs of the public thanks to active listening, the collaboration of supplier companies and the team's capacity for innovation, always taking into account the care of the environment.
- **Teamwork:** Our strength is our people. Acquabella has a work environment in which respect and cooperation prevail, taking advantage of diverse perspectives and enhancing the best in each person. People with different characteristics and initiative, identified with the company's culture, but without losing their identity and motivated by their professional development. Our enthusiasm, creativity, dedication and professionalism have made us who we are.



Product Category Rule (PCR): PCR 2019:14 Construction products version 1.3.1 (EN 15804+A2)

Product Information

Name of the product or family of products covered by this EPP:

This Environmental Product Declaration (EPD) describes the environmental impacts corresponding to the product "Akron Countertops" under different commercialized finishes.

UN CPC Code: 376

Description of the product and its use:

The range of countertops from Construplas, S.L.U. is manufactured as standard or custom-made, according to the specifications required in the design. It is possible to choose texture, color, size, number of washbasins and shape.

The products are made of Akron, which is a composite of polyurethane and high-quality mineral fillers and different granulometry that is mass-compacted to achieve a solid and reinforced finish. This polyurethane matrix is made with polyether polyols that guarantee magnificent properties.

The surface is treated with a polyurethane acrylic coating that ensures full integration with the substrate. This coating offers excellent physical and chemical properties.



Figure 1: Encimera Akron.

Technical Data & Physical Characteristics:

Prestaciones declaradas / Declared performance / Performances déclarées		
Ensayos realizados <i>Tests carried out / Essais réalisés</i>	Especificaciones <i>Specifications / Spécifications</i>	Resultado <i>Results / Résultat</i>
Resistencia a la carga / <i>Load resistance / Résistance à la charge</i>	UNE EN 14688 Ap.5.2	Cumple* <i>Complies / Conforme</i>
Evacuación del agua / <i>Water run-off / Évacuation – de l'eau</i>	UNE EN 14688 Ap.5.3	Cumple <i>Complies / Conforme</i>
Resistencia a los cambios de temperatura / <i>Resistance to temperature changes / Résistance aux variations de température</i>	UNE EN 14688 Ap.5.4	Cumple <i>Complies / Conforme</i>
Resistencia a productos químicos y manchas / <i>Resistance to chemical products and stains / Résistance aux produits chimiques et aux agents tachants</i>	UNE EN 14688 Ap.5.5	Cumple <i>Complies / Conforme</i>
Resistencia al rayado / <i>Scratch resistance / Résistance à la rayure</i>	UNE EN 14688 Ap.5.6	No applicable** <i>Not applicable / Non applicable</i>
Resistencia a la abrasión / <i>Wear resistance / Résistance à l'abrasion</i>	UNE EN 14688 Ap.5.7	No applicable** <i>Not applicable / Non applicable</i>
Aptitud para la limpieza / <i>Suitability for cleaning / Aptitude au nettoyage</i>	UNE EN 14688 Ap.5.8	Cumple <i>Complies / Conforme</i>
Determinación del caudal de rebosadero / <i>Determination of overflow flow rate / Détermination du débit du trop-plein</i>	UNE EN 14688 Ap.5.9	CL 10

Description of System Components:

Akron countertops are mainly composed of loads and polyurethanes

The packaging materials are drawers of different sizes.

The amount of packaging materials varies depending on the format to be packed.

The weight content of the product included in the EPD is shown in the following tables.

The composition of the product is detailed in the following table, corresponding to the components of Akron countertops.

Board 1: Composition table for Akron countertops.

Main Component	Weight, kg	Post-Consumer Recycled Material, Weight %	Biogenic material, weight % and kg C/kg
Loads	0,55-0,60	100,00	-
Polymer	0,35-0,40	0	-
Other	0,0,-0,50	0	-
Total	1,00	60,00%	-
Packaging material	Weight, kg	Post-Consumer Recycled Material, Weight %	Biogenic material, weight % and kg C/kg
Cardboard	0,14	0,11	0,07

During the life cycle of the product, no hazardous substance included in the "Candidate List for Authorisation (SVHC)" has been used in a percentage greater than 0.1% of the weight of the product. All the quantities specified in the table describing the components of Akron countertops, unifying all stages of the life cycle.

Board 2: Amount of biogenic carbon in the product.

Results by Functional Unit	Unit	Quantity
Biogenic carbon content in the product	kg C	0,00
Biogenic carbon content in packaging	kg C	0,26

The product is marketed in different formats with the same composition and the same production process.

LCA Information

DECLARED UNIT	1 kg of Akron countertop product
SYSTEM LIMITS	From "Cradle to Gate with Options (A+B+C+D)"
REFERENCE SHELF LIFE (RSL)	20 years
COURT RULES	<p>A minimum of 99% energy consumption is considered for manufacturing facilities</p> <p>It is considered 99% of the raw material by mass.</p> <p>The following processes have been excluded:</p> <ul style="list-style-type: none"> - Manufacture of equipment used in production, buildings or any other capital goods - Transportation of personnel to the plant - Transportation of personnel within the plant - Research and development activities - Long-term emissions.
ASSIGNMENTS	<p>Wherever possible, assignments have been avoided. For cases where this has not been possible, a mass-based physical allocation is made. The data referring to the composition of the system have been obtained directly and have been analysed following the principles of <i>modularity</i> and <i>the polluter pays</i>.</p>
GEOGRAPHICAL COVERAGE	Global
PERIOD	2022
LCA SOFTWARE USED FOR CALCULATION	<p>Ecoinvent 3.8 (allocation, cut-off by classification) with the Simapro 9.3.0.2 database used for LCS calculations. The LCA methods used are in accordance with the UNE-EN 15804 Standard: EN 15804:2012 + A2:2019/AC:2021</p>

Data quality

The data collected regarding components and energy correspond to the year 2022 and include data on raw materials consumed and energy consumption. The plausibility and consistency of the data collected has been verified. It can therefore be considered a good data quality.

The calculation of the system's LCA did not take into account the flows related to the construction of the production plants, the application machines or the transport of employees.

Other Information:

This LCA has been carried out by **SGS TECNOS S.A.U.** Material and energy bills have been collected and checked. The study covers at least 95% of the materials and energy per module and at least 99% of the total material and energy use of each unit process.

Life Cycle & Compliance:

This EPD includes the steps shown in Table 3. This statement is of the cradle-to-grave type.

This statement may not be comparable to those developed in other programmes or according to different reference documents; in particular, it may not be comparable with Declarations not prepared in accordance with the UNE-EN 15804 Standard: EN 15804:2012 + A2:2019/AC:2021. Similarly, environmental claims may not be comparable if the data source is different, the same information modules are not included, or are not based on the same scenarios.

	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-Recovery-potential	
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	IS	IS	IS	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	
Specific data used	>90% GWP-GHG					-	-	-	-	-	-	-	-	-	-	-	-	
Variation – products	0%					-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%					-	-	-	-	-	-	-	-	-	-	-	-	-

Life Cycle Stages

System Limits Description: Cradle to gate with options (A+B+C+D)



Figure 2: Stages of a product's life cycle according to cradle-to-grave analysis.

Product Stage A1 - A3

Description of the stage:

The product stage of Akron countertops is subdivided into modules A1 for raw material supply, A2 for transport to the manufacturer, and A3 for manufacturing. The grouping of these three modules is a possibility contemplated by the UNE-EN15804: EN 15804:2012 + A2:2019/AC:2021 standard that is applied in this DAP.

A1 Supply of Raw Materials

This module refers to the extraction and pre-processing of the raw materials and energy sources used in the manufacture of the products that make up the system.

A2 Transport

This module includes the transport of raw materials to the manufacturing plant.

A3 Manufacturing

This module mainly contemplates the energy consumption during the manufacture of the product, as well as the manufacture of the product, at this stage the losses produced during the production process are taken into account. Stage A3, corresponding to the manufacture of countertops, in which no water is involved at any stage, takes into account the minimization of the following environmental aspects: soil contamination, air pollution, consumption of natural resources, and nuisance to the surroundings. It consists of the following stages:

PAINTED

The panel mould is coated with a layer of polyurethane-based lacquer.

MIXING RAW MATERIALS

The mixture of raw materials is prepared and mixed manually in the established proportions.

WASHING

The casting is immediately incorporated into the mold already painted and dried.

GRINDING AND MACHINING

Once the panel has been removed from the mould, it is ground to the established thickness and machined according to drawing parameters, using a numerical control system.

ASSEMBLY

The machined parts are assembled to form the countertop.

REPAINTED

The plates are repainted to improve the finish of the product.

The shower tray then goes to the quality control stage. The non-conforming product is rejected.

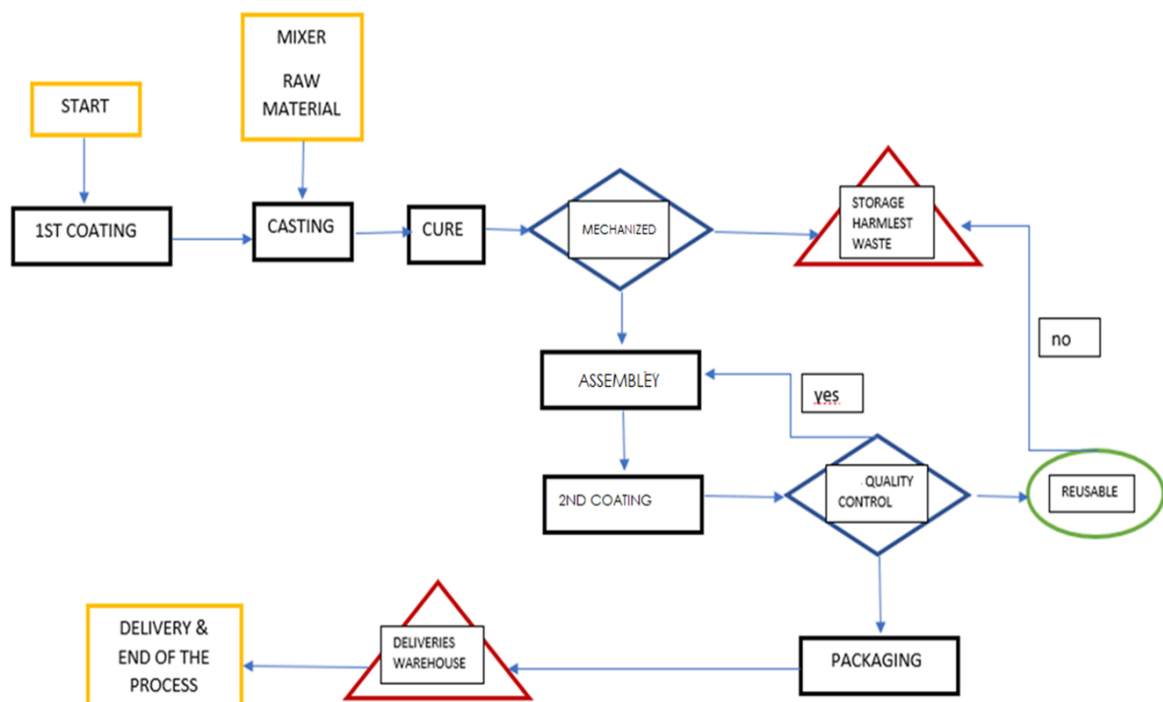


Figure 3: Simplified flow diagram of the production process of Akron countertops.

The waste and losses generated in the production process have been taken into account. In addition, the electrical mix used for the production stage has been the specific electrical mix of the supplier ELEIA:

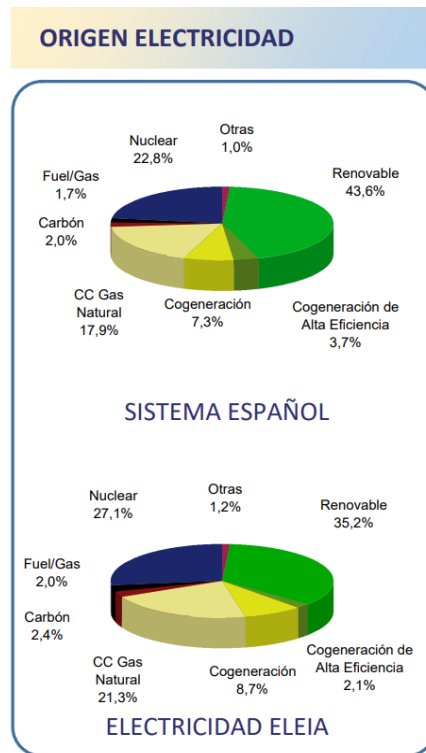


Figure 4: Electrical mix used. The GWP impact results for 1kWh of the energy mix used are 0.306 kg CO_{2eq}.

Construction Process Stage A4 - A5

Description of the stage:

The construction process stage of the Akron countertops product is subdivided into modules A4 for transport to the construction site and A5 for installation.

A4 Transport to the construction site

This module covers the transport of the system components from the production site to the place of application, including the possibility of intermediate storage. An average transport distance is estimated depending on the final destination of the product.

Transport is calculated on the basis of an average scenario, the characteristic parameters of which are described in the table below.

PARAMETER	VALUE (expressed by Declared Unit)
Fuel consumption of the vehicle or means of transport used	Truck with an average load of 16-32 t (Euro 6). Cargo ship
Average Distance	854.86 km 14.79 nautical miles sea
Bulk density of the conveyed product	-
Load capacity utilization (in volume, including return of unladen transport)	% assumed in the Ecoinvent database
Load Capacity Utilization Factor, in Volume	1 (default)

Figure 5: Stage A4.

A5 Installation

This module covers the application of the product on the construction site, and includes:

- There is no waste derived from the application of the product, the waste produced corresponds to the packaging of the product.
- The most representative application scenario associated with the Akron product does not require the use of water or energy as it is a manual installation.

PARAMETER	VALUE (expressed by declared unit)
Secondary Materials Used in Installation	Aluminum (Screws) 0.006/kg product
Water Usage	0 liters
Use of other resources (electricity)	0 kWh
Electricity consumption during the installation process	It is considered despicable.
Material residue during on-site installation	1% of components
On-site waste (collection for recycling, energy recovery or landfill (specifying the route)	82% of the waste from the product packaging is taken to the waste recycling treatment centre. Conservative methodology: Waste from 18% of the product's packaging is landfilled.
Packaging waste to treatment centre	0.115 kg
Packaging waste to landfill	0.030 kg
Direct emissions to air, soil or water	They are not generated.
Packaging per kg of recycled product	82%

Figure 6: Stage A5.

The statement does not take into account the impact related to the optional use of products or accessories not expressed in the technical data sheet of the system used.

Stage of Use (excluding possible savings) B1 - B7

Description of the stage:

This stage refers to the operation of the building including any emissions to the environment caused by the use of the product (module B1) or by subsequent technical operations: maintenance (B2), repair (B3), replacement (B4) or rehabilitation (B5).

- B1: The use of the product does not generate emissions.
- B2-B5: The performance of the product under consideration leads to the conclusion that its service life equals or exceeds the useful life of the building. Once applied, the components of the system do not require actions that depend on the end user, although a series of cleaning and maintenance actions are recommended by Construplas. The quantities used have been determined depending on the frequency of use and the amount per use indicated in the product's user and maintenance manual.

MAINTENANCE PHASE (B2)

PARAMETER	Frequency of use	Amount Per Use (g)
Cleaning products	Weekly	5,00
Sponge	1 each year	20,00
Cotton clothing	1 every 20 years	100,00

REPAIR PHASE (B3)

PARAMETER	Frequency of use	Amount Per Use (g)
Catalyst	1 every 20 years	0,30
Plastic Components of the Repair Kit	1 every 20 years	10,10

REPLACEMENT PHASE (B4)

PARAMETER	% of parts replaced
Worktop	0,07%

The use stage also includes the use of energy in service (module B6) and the use of water in service (module B7).

- B6, B7: The product does not use water or electricity during the operational life of the building. And the energy and emissions savings from the system's insulating properties have not been accounted for.

End-of-Life Stage, C1 - C4

Description of the stage:

This phase is made up of the end-of-life related modules, C1 to C4, detailed below:

- C1 Deconstruction, demolition: As the demolition and/or dismantling of the product is part of the demolition of the building itself, it is assumed that the environmental impact is extremely low and therefore can be disregarded.
- C2 Transport: Includes the transfer of construction waste from the construction site to the waste treatment point.
- C3 Waste treatment: Includes the reuse, recovery and/or recycling of waste. Law 7/2022 establishes that construction and demolition waste must be destined for reuse, recycling or other forms of recovery operations at least 70% and therefore it is considered that the product is sent to recovery after the demolition of the building together with the concrete material extracted in 70%.
- C4 Waste disposal: It is assumed that 30% of waste is disposed of in a landfill and an average distance of 50 km is considered.

PARAMETER	VALUE (expressed by declared unit)	
Collection process (mixed with the rest of the CDW)	1 kg of product.	
Recovery system	Valorization (70%)	
Disposal (in landfill)	kg product.	30%
Transport assumptions for the development of the scenario	Medium load truck 16-32 t (euro 6)	
Distance to landfill	50 km	

Figure 6: Stage C1-C4

Potential for reuse/recovery/recycling, D

Module D declares the environmental benefits of product reuse and recycling, as well as energy recovery.

In this EPD, the environmental burdens avoided as a result of the recycling carried out throughout the life cycle of the product are considered, considering that 70% of the product is taken to recycling and 30% of the product is taken to landfill, so it has been considered environmental benefit.

In this module, a 70% saving resulting from recycling carried out throughout the life cycle has not been computed and the net balance of raw material is considered.

Environmental impacts of the product

The results of the LCA are detailed in the tables on the following pages along with the interpretation of the overall impacts produced per declared unit (1 kg of product). Estimated impact results are only relative statements that do not indicate impact category endpoints, exceedances of threshold values, safety margins, or risks

The Simapro 9.3.0.2 software was used to carry out the LCA, together with the Ecoinvent 3.8 database.

The following impact models have been used:

- CML-IA root V3.07/ EU25.
- ReCiPe 2016 Midpoint (H) V1.06 / World (2010) H.
- EDIP 2003 V1.07 / Default.
- Cumulative Energy Demand V1.11
- EF 3.0 Method (adapted) V1.02 / EF 3.0 normalization and weighting set.
- IPCC 2021 GWP100a

IMPACT RESULTS

POTENTIAL ENVIRONMENTAL IMPACTS OF THE AKRON COUNTERTOP PRODUCT

Parameters		Product Stage	Construction Process Stage		Stage of use							End-of-life stage				Module D
		A1 / A2 / A3	A4 Transportation	A5 Installation	B1 Usage	B2 Maintenance	B3 Repair	B4 Substitution	B5 Rehabilitation	B6 In-service energy use	B7 Use of water in service	C1 Deconstruction/Demolition	C2 Transport	C3 Waste treatment	C4 Waste Disposal	D Potential for Reuse, Recovery and Recycling
Global Warming Potential, GWP - <i>kg CO2 eq (NA)</i>	Still- <i>kg CO2 eq</i>	2.49E+00	1.39E-01	2.75E-02	0.00E+00	1.31E+00	2.48E-03	1.86E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.14E-03	0.00E+00	1.58E-03	-1.09E-03
	Biogenic - <i>kg CO2 eq</i>	-2.57E-01	0.00E+00	2.57E-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
	Land use and transformation - <i>kg CO2 eq</i>	4.03E-03	5.54E-05	4.11E-05	0.00E+00	8.41E-02	2.35E-06	2.89E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.26E-06	0.00E+00	1.49E-06	-1.12E-06
	TOTAL – <i>kg CO2 eq</i>	2.24E+00	1.39E-01	2.84E-01	0.00E+00	1.40E+00	2.48E-03	1.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.15E-03	0.00E+00	1.58E-03	-1.09E-03
Stratospheric ozone depletion potential (ODP)	<i>kg CFC11 eq (NA)</i>	2.00E-07	3.21E-08	2.63E-09	0.00E+00	8.92E-03	9.94E-09	1.64E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-09	0.00E+00	6.39E-10	-1.07E-10
Acidification potential of soil and water resources, (PA)	<i>mol H+ eq (NA)</i>	1.44E-02	3.96E-04	1.52E-04	0.00E+00	1.52E-07	9.94E-09	1.64E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.31E-05	0.00E+00	1.49E-05	-7.95E-06
Eutrophication potential, Fraction of nutrients reaching freshwater as final compartment (EP-freshwater) (NA)	<i>kg P eq</i>	5.32E-05	9.87E-07	5.45E-07	0.00E+00	1.07E-04	6.73E-08	3.83E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.81E-08	0.00E+00	1.66E-08	-3.13E-08

POTENTIAL ENVIRONMENTAL IMPACTS OF THE AKRON COUNTERTOP PRODUCT

Parameters		Product Stage	Construction Process Stage		Stage of use							End-of-life stage				Module D
		A1 / A2 / A3	A4 Transportation	A5 Installation	B1 Usage	B2 Maintenance	B3 Repair	B4 Substitution	B5 Rehabilitation	B6 In-service energy use	B7 Use of water in service	C1 Deconstruction/Demolition	C2 Transport	C3 Waste treatment	C4 Waste Disposal	D Potential for Reuse, Recovery and Recycling
Eutrophication potential, Fraction of nutrients reaching seawater as final compartment (EP-marine)	<i>kg N eq (NA)</i>	2.54E-03	7.89E-05	2.71E-05	0.00E+00	3.61E-03	1.99E-06	1.85E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.59E-06	0.00E+00	5.14E-06	-2.36E-06
Eutrophication potential, Cumulative excess (EP-terrestrial)	<i>mol N eq (NA)</i>	2.66E-02	8.79E-04	2.85E-04	0.00E+00	1.98E-02	2.16E-05	1.94E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.12E-05	0.00E+00	5.65E-05	-2.74E-05
Tropospheric Ozone Formation Potential (POCP)	<i>kg NMVOC eq (NA)</i>	1.02E-02	3.37E-04	1.09E-04	0.00E+00	4.73E-03	7.53E-06	7.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-05	0.00E+00	1.65E-05	-7.58E-06
Potential for depletion of abiotic resources for non-fossil resources (ADP - minerals & metals)	<i>kg Sb eq (2)</i>	5.03E-06	4.91E-07	5.59E-08	0.00E+00	1.96E-05	2.57E-08	3.90E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-08	0.00E+00	3.60E-09	-9.45E-09
Abiotic Resource Depletion Potential for Fossil Resources (ADP-fossil)	<i>MJ, net calorific value (2)</i>	4.39E+01	2.10E+00	4.80E-01	0.00E+00	2.05E+01	5.14E-02	3.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-01	0.00E+00	4.41E-02	-1.29E-02
Water (Use) Potential, Weighted Deficiency and Water Consumption (WDP)	<i>m3 depriv. (2)</i>	2.80E-01	6.39E-03	3.08E-03	0.00E+00	2.47E+00	1.08E-03	2.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-04	0.00E+00	1.99E-03	-1.68E-02

Disclaimer-(1)- This impact category refers primarily to the potential impact of low doses of ionizing radiation on human health from the nuclear fuel cycle. It does not take into account the effects of possible nuclear accidents, occupational exposure and underground radioactive waste disposal facilities. Potential ionizing radiation from soil, radon and some building materials is also not measured by this indicator.

Disclaimer-(2)- The results of this environmental impact indicator should be used with caution, as uncertainties about these results are high or experience with the indicator is limited.

POTENTIAL ENVIRONMENTAL IMPACTS OF THE AKRON COUNTERTOP PRODUCT ADDITIONAL AND MANDATORY IMPACTS

Parameters		Product Stage	Construction Process Stage		Stage of use							End-of-life stage				Module D
		A1 / A2 / A3	A4 Transportation	A5 Installation	B1 Usage	B2 Maintenance	B3 Repair	B4 Substitution	B5 Rehabilitation	B6 In-service energy use	B7 Use of water in service	C1 Deconstruction/De molition	C2 Transport	C3 Waste treatment	C4 Waste Disposal	Potential for Reuse, Recovery and Recycling
GWP – GHG2	kg CO2 eq	2.48E+00	1.38E-01	2.74E-02	0.00E+00	2.74E-02	1.33E+00	2.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.13E-03	0.00E+00	1.57E-03	-1.08E-03

Disclaimer-(1)- This impact category refers primarily to the potential impact of low doses of ionizing radiation on human health from the nuclear fuel cycle. It does not take into account the effects of possible nuclear accidents, occupational exposure and underground radioactive waste disposal facilities. Potential ionizing radiation from soil, radon and some building materials is also not measured by this indicator.

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POTENTIAL ENVIRONMENTAL IMPACTS OF THE AKRON COUNTERTOP PRODUCT ADDITIONAL AND VOLUNTARY IMPACTS

Parameters		Product Stage	Construction Process Stage		Stage of use							End-of-life stage				Module D
		A1 / A2 / A3	A4 Transportation	A5 Installation	B1 Usage	B2 Maintenance	B3 Repair	B4 Substitution	B5 Rehabilitation	B6 In-service energy use	B7 Use of water in service	C1 Deconstruction/Dismantlement	C2 Transport	C3 Waste treatment	C4 Waste Disposal	Potential for Reuse, Recovery and Recycling
Potential incidence of emissions diseases	PM (PM) - disease inc. (NA)	1.38E-07	1.11E-08	1.60E-09	0.00E+00	9.87E-08	1.15E-10	1.06E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.54E-10	0.00E+00	2.99E-10	-1.49E-10
Potential of human exposure efficiency relative to	J235 (IRP) - kBq U-235 eq (1)	2.23E-01	1.46E+00	2.42E+00	0.00E+00	1.74E+01	5.98E-03	1.70E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.60E-02	0.00E+00	9.26E-02	-1.86E-02
Potential Comparative Toxic Unit for Humans (HTP-c)	CTUh (2)	4.31E+01	1.65E+00	4.57E-01	0.00E+00	5.49E+01	3.70E-02	3.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.69E-02	0.00E+00	2.79E-02	-2.17E-02
Potential Toxic Unit Potential to Humans (HTP-nc)	CTUh (2)	1.46E+00	1.26E-01	1.71E-02	0.00E+00	8.06E+00	6.27E-04	1.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.12E-12	0.00E+00	7.07E-13	-8.84E-13
Comparative Toxic Unit Potential for Ecosystems	CTUe (2)	3.32E-08	1.66E-09	3.60E-10	0.00E+00	3.41E-08	2.82E-11	2.46E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.79E-11	0.00E+00	1.83E-11	-1.99E-11
Soil Quality Index (SQP) Potential	Pt (2)	2.39E+02	1.46E+00	2.42E+00	0.00E+00	1.74E+01	5.98E-03	1.70E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.60E-02	0.00E+00	9.26E-02	-1.86E-02

Disclaimer-(1)- This impact category refers primarily to the potential impact of low doses of ionizing radiation on human health from the nuclear fuel cycle. It does not take into account the effects of possible nuclear accidents, occupational exposure and underground radioactive waste disposal facilities. Potential ionizing radiation from soil, radon and some building materials is also not measured by this indicator.

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PRODUCT RESOURCE USAGE AKRON COUNTERTOP

Parameters		Product Stage	Construction Process Stage		Stage of use							End-of-life stage				Module D
		A1 / A2 / A3	A4 Transportation	A5 Installation	B1 Usage	B2 Maintenance	B3 Repair	B4 Substitution	B5 Rehabilitation	B6 In-service energy use	B7 Use of water in service	C1 Deconstruction/D emolition	C2 Transport	C3 Waste treatment	C4 Waste Disposal	D Potential for Reuse, Recovery and Recycling
Primary Energy Resources - Renewables	Used as a source of energy MJ, net calorific value	4.47E+01	3.00E-02	4.47E-01	0.00E+00	6.69E+00	1.91E-03	3.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-03	0.00E+00	3.76E-04	-7.51E-04
	Used as raw material MJ, net calorific value	2.66E+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
	TOTAL, MJ, net calorific value	4.74E+01	3.00E-02	4.47E-01	0.00E+00	6.69E+00	1.91E-03	3.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-03	0.00E+00	3.76E-04	-7.51E-04
Primary Energy Resources - Non-Renewable	Used as a source of energy MJ, net calorific value	4.76E+01	2.23E+00	5.19E-01	0.00E+00	2.21E+01	5.52E-02	3.52E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.31E-01	0.00E+00	4.69E-02	-1.37E-02
	Used as raw material - 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
	TOTAL, MJ, net calorific value	4.76E+01	2.23E+00	5.19E-01	0.00E+00	2.21E+01	5.52E-02	3.52E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.31E-01	0.00E+00	4.69E-02	-1.37E-02
Secondary Materials	kg	6.02E-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	0.00E+00	0.00E+00
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
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 fresh water	m3	9.28E-03	2.38E-04	1.01E-04	0.00E+00	7.72E-02	2.85E-05	6.73E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-05	0.00E+00	4.73E-05	-3.94E-04

PRODUCT WASTE CATEGORY AKRON COUNTERTOP																
Parameters		Product Stage	Construction Process Stage		Stage of use							End-of-life stage			Module D	
		A1 / A2 / A3	A4 Transportation	A5 Installation	B1 Usage	B2 Maintenance	B3 Repair	B4 Substitution	B5 Rehabilitation	B6 In-service energy use	B7 Use of water in service	C1 Deconstruction/Demolition	C2 Transport	C3 Waste treatment	C4 Waste Disposal	Potential for Reuse, Recovery and Recycling
Hazardous Waste Removed	kg	2.95E-05	5.48E-06	3.96E-07	0.00E+00	1.90E-05	8.69E-08	2.48E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.22E-07	0.00E+00	6.67E-08	-2.90E-08
Non-hazardous waste disposed of	kg	7.17E-01	1.10E-01	4.13E-02	0.00E+00	1.60E-01	2.57E-04	6.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.47E-03	0.00E+00	3.00E-01	-1.69E-04
Radioactive waste disposed of	kg	6.83E-05	1.42E-05	9.61E-07	0.00E+00	3.65E-05	6.67E-08	5.84E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.34E-07	0.00E+00	2.89E-07	-5,10E-08

OTHER PRODUCT OUTPUT STREAMS AKRON COUNTERTOP

Parameters		Product Stage	Construction Process Stage		Stage of use							End-of-life stage				Module D
		A1 / A2 / A3	A4 Transportation	A5 Installation	B1 Usage	B2 Maintenance	B3 Repair	B4 Substitution	B5 Rehabilitation	B6 In-service energy use	B7 Use of water in service	C1 Deconstruction/Demolition	C2 Transport	C3 Waste treatment	C4 Waste Disposal	Potential for Reuse, Recovery and Recycling
Components for reuse	kg	0.00E+00	0.00E+00	1.15E-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
Material to be recycled	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	7.00E-01	0.00E+00	0.00E+00
Materials for energy recovery (energy recovery)	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
Exported Energy, Electricity	MJ	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
Exported energy, thermal	MJ	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

Interpretation of LCA

The following graph allows us to determine which stages of the Life Cycle have the greatest impact on the selected environmental indicators.

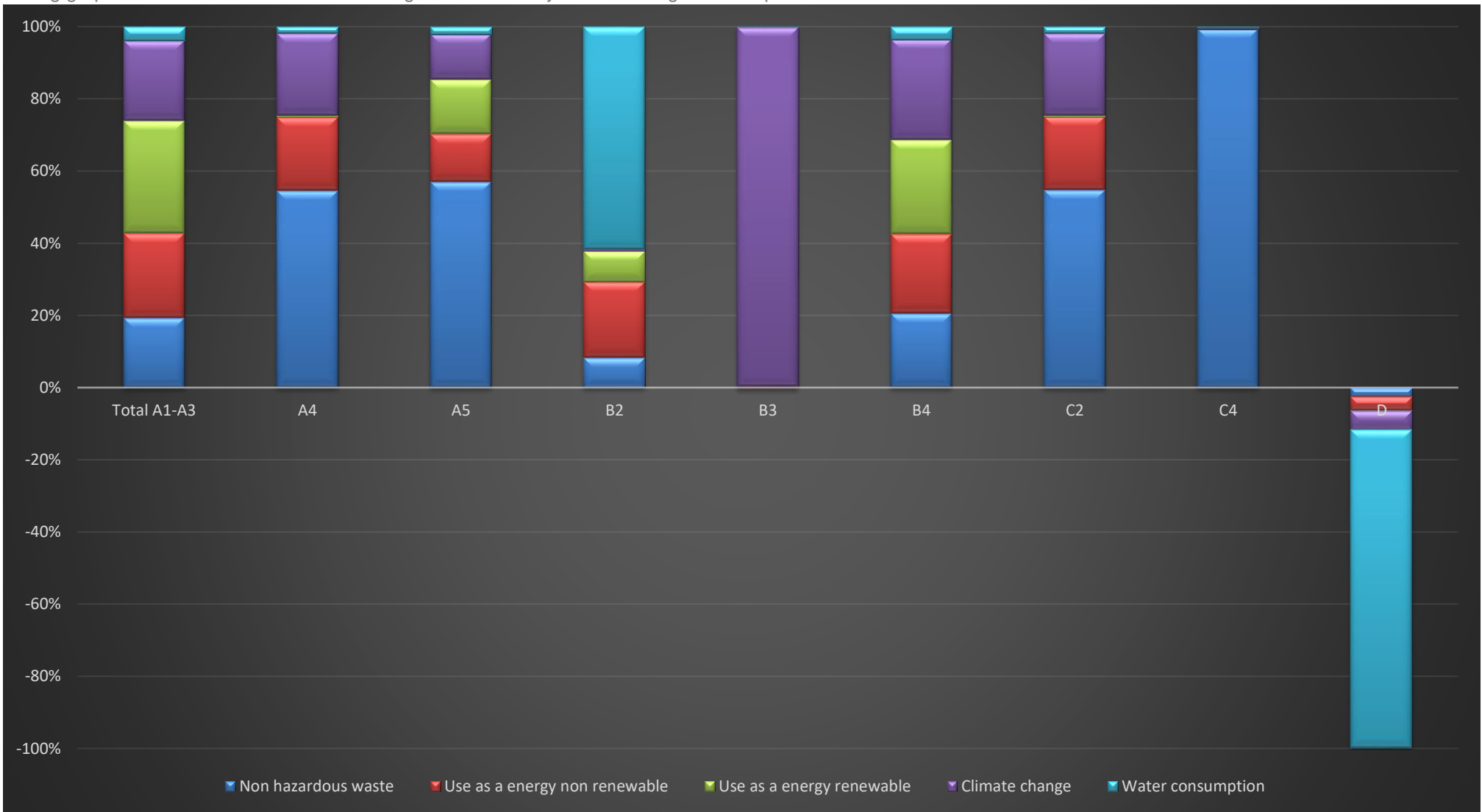


Figure 7: Environmental impacts of the Akron countertop. The graph shows the contribution in percentage terms of each of the impact categories selected for each stage.

Health Information

View the safety data sheets for system components.

<https://www.acquabella.com>

Positive contributions to the environment

At Construplas, an organization dedicated to the design, development, production and marketing of bathroom systems, in addition to committing to comply with the quality, environmental management and health and safety policy, linked to our management system, it shows a firm commitment to the environment and develops our products thinking about a sustainable and efficient future, betting on R+D+i, one of our hallmarks.

The development of the Akron material allows, from a point of view committed to the environment, the alignment with the public commitment of Construplas to the environment and society.

Information relating to the EPD sector

This EDP is an Akron countertop product statement.

Differences from previous versions

This is the first version of Environmental Product Declaration (EPD) and LCA

Source of information

Scope: Spain

Period: 2022

The information has been obtained from Ecoinvent 3.8 databases and/or raw material suppliers.

Commodities	Generic databases, and information from suppliers or producer associations
Production	First-party data
Transport	Generic or specific information
Application	Generic or specific information
Life in Use	Generic information
End of Life	Generic information
Energy	Specific information

References

1. General Programme Instructions of the International EPD® System. Version 4.0.
2. ISO 14020:2000: Environmental labels and declarations — General principles
3. ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures (2010).
4. ISO 14040, Environmental Management – Life Cycle Assessment – Principles and Framework (2006).
5. ISO 14044:2006, Environmental Management – Life Cycle Assessment – Requirements and Guidelines (2006).
6. PCR 2019:14 Construction products - version 1.3.1 - EN (2019): EN 15804:2012+A2:2019, Sustainability of construction works – Environmental product declarations – Core rules for product category of construction products)
7. UNE-EN 15804:2012+A2:2019/AC:2021 – Environmental Product Declarations – Basic Product Category Rules for Construction Products (2021).
8. ACV Construplas (2023) v01.