Environmental Product Declaration of

ECOBATCH® Stationary Concrete Plant by Spanos Group

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

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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.

Programme related Information

Programme Owner:	The International EPD System Box 210 60 SE-100 31, Stockholm, Sweden www.environdec.com info@environdec.com
EPD Owner:	SPANOS GROUP O.T. 42, P.O. Box 1252, Industrial Area of Sindos, 57022 Thessaloniki, Greece info@spanos-group.com http://www.spanos-group.com

Accountabilities for PCR, LCA and third-party verification

Product Category Rules (PCR)

CEN standard EN 15804 serve as the core Product Category Rules (PCR)

Product Category Rules (PCR):
PCR 2019:14 Construction products**, version 1.2.5**
c-PCR-026 Concrete batching plants (c-PCR under PCR 2019:14) (2023-06-13)

PCR review was conducted by: The Technical Committee of the International EPD® System. See www.environdec.com/TC 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: ENVIROMETRICS S.A.

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Third party verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:
☒ EPD verification by individual verifier
Third party verification: **GREENZERO AX GmbH**

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Procedure for follow-up during EPD validity involves third party verifier
☐Yes ☒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 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.

EPDs of construction products may not be comparable if they do not comply with EN 15804:2012+A2:2019/AC:2021. For further information about comparability, see EN 15804 and ISO 14025.

Company Information

A true pioneer and innovator since its establishment in 1991, SPANOS Group is active in all fields of engineering and construction works, offering a complete portfolio of innovative technical solutions, high quality construction equipment and specialized technical services.

Driven by the motto" Building On Trust", SPANOS represents the only Greek, differentiated and vertically integrated solution provider for complex engineering works.

The international collaborations that SPANOS has forged over the years with leading global manufacturers of the sector, guarantee high quality products and attributed know-how.
In its efforts to maximize added value for clients, the company never stops investing in leading-edge technology, R&D and the optimization of the services it provides.

Sustainability is a strategy of SPANOS Group and a core value that governs all the activities of the company. We see carbon footprint reduction as both a necessity and a business opportunity.

Our commitment to sustainable development is reflected in our principles and guides our business activities.
Our mission is to make the difference, by building and offering high-quality and cost-effective solutions in all fields of engineering and construction works, highlighting asphalt & road construction, concrete, mines & quarries and recycling sector.

Supported by an international team of professional and dedicated individuals we provide innovative solutions and after-sales services, wide range of spare parts and continuous training. Passionate about customer satisfaction, we are committed to continuous improvement and development for offering reliable products which enable our clients to focus on their core business.

Product Information

ECOBATCH® : The Game Changer in Concrete Production!

ECOBATCH® is an energy saving & productivity improvement stationary concrete plant system, designed and developed by SPANOS Group, that combines:

- Faster aggregates feeding
- Smart powders, water, and additives dosing methodology
- Smoother, faster, and more effective mixing
- Faster and more efficient mixer discharge
- Smaller total installation space
- Ergonomic control cabin location
- Reduced water quantity for mixer cleaning

The careful observation of modern construction needs led to the design of a flexible, safe and energy and cost-efficient batching plant system, with guaranteed quality backed by highly acclaimed certifications.

Every batching plant bears the CE sign, which states compliance with the 2006/42 CEE regulation concerning machinery safety.

Nowadays hundreds of ECOBATCH® plants successfully operate in over 20 countries and 3 continents.

The ECOBATCH® Stationary Concrete Plant is used to produce different types of concrete for various needs and applications.

The UN CPC code is 44440 *''Machinery for sorting, screening, separating, washing, crushing, grinding, mixing or kneading earth, stone, ores or other mineral substances, in solid form; machinery for agglomerating, shaping or moulding solid mineral fuels, ceramic paste, unhardened cements, plastering materials or other mineral products in powder or paste form; machines for forming foundry moulds of sand.''.*

The following tables include plant characteristics and technical information as required by c-PCR-026 Concrete batching plants.

Plant Description:

Information	Explanation
Commercial name	ECOBATCH® Stationary Concrete Plant
Main components	Aggregate Storage Bins (for different materials)
	Weighing Systems (for different materials)
	Mixer
	Cement Screw Conveyor
	Control system
	Conveyor belt
Spare parts	Rubber materials, ceilings, and filters

Technical information:

Information	Explanation
Functional performance (productivity)	175 m^3/h
Type of batching plant	Stationary
Plant weight (total, including all components)	135 tonnes
Concrete Discharge Height	4 m

Information	Explanation
Aggregate storage (number of bins and storage capacity)	8 bins, 30 m^3 each
Batch volume (capacity)	5 m^3
Power (total installed)	386 kW
Energy consumption	0,5 kWh/m^3
	no internal combustion engines used
Spare parts consumption	Rubber materials, ceilings, and filters. Consumed around 3 kg of each material annually.
Chemical products and other consumables consumption	100 kg grease, 50 lt gearbox oil
Designed technical lifespan	20 years
Typical operating hours	Not available information. A fixed value of 2,000 hours per year (eight hours per day, five days per week, 50 weeks per year) was used for all relevant module scenarios.

Content declaration per 1 ECOBATCH® Stationary Concrete Plant

Type of material	kg of material
Copper	679.3
Stainless Steel	12,477.3
Galvanized Steel	1,916.6
Steel	115,222.9
Cast Iron	131.6
Aluminium	200.2
Brass	108.9
Bronze	-
PVC	99.8
Rubber	2,826.3
Polyethylene	7.9
Polyamide	4.4
Polycarbonate	1.2
Polypropylene	59.1
Plastic	1,209.7
Oil	53.7
Silicon	1.1

Additionally to the materials declared in the above table, the plant includes the following items:

- Laptop – 3 items
- Printer laser – 1 item
- Air compressor – 1 item
- Screen – 6 items
- Mouse – 1 item
- Pump – 18 items

According to the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Regulation, the product does not contain any substance included in the Candidate List of Substances of Very High Concern (SVHCs) for authorization with concentrations higher than 0.1% weight by weight (w/w).

System boundaries

	Product stage			Construction stage		Use stage							End-of-life stage				Resource recovery stage
	Raw Materials Supply	**Transport**	**Manufacturing**	**Transport**	**Construction installation**	Use	**Maintenance**	Repair	Replacement	Refurbishment	**Operational energy use**	Operational water use	**De-construction and demolition**	**Transport**	**Waste processing for reuse, recovery and/or recycling**	**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	X	X	ND	X	ND	ND	ND	X	ND	X	X	X	X	X
Geography	EU	EU	GR	EU	EU	-	EU	-	-	-	EU	-	EU	EU	EU	EU	EU
Specific data used	>95%			-	-	-	-	-	-	-	100%	-	-	-	-	-	-
Variation-products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation-sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Modules of LCA analysis: X = module declared, ND = Module Not Declared

**This declaration covers "cradle to grave". All mandatory modules covered in the EPD are marked with "X". For non-relevant fields, ND is marked in the table (module not related).*

A1: Raw Material Supply

Production starts with the material supply. This stage includes the mining and processing of raw materials used for the production of ECOBATCH® Stationary Concrete Plant's components as well as the generation of electricity and other utilities required for the manufacturing stage of those components.

A2: Transportation of raw materials and components to manufacturer

Transportation stage is relevant to delivery of raw materials used for the production of system components by Spanos Group, from the supplier to the gate of the manufacturing plant of the company. Raw materials and components for the production are transported by trucks and vessels from different suppliers all over the world. It is noted that the majority of suppliers are located in Greece and Europe.

A3: Manufacturing

This stage includes the manufacturing of the ECOBATCH® Stationary Concrete Plant. The manufacturing process includes assembling and welding of steel parts.

A4: Transport

This stage includes the transportation of manufactured components of the plant from the manufacturing unit of SPANOS Group to the installation site.

A5: Installation

This module includes energy consumed in tower cranes during the installation of the plant in customer's site.

B2: Maintenance

This module covers the combination of all planned technical actions of parts and materials replacement for the maintenance of the Concrete Batching Plant, during its designed technical lifespan.

B6: Operational energy use

The boundary of this module includes energy use during the operation of the concrete batching plant. In the case of ECOBATCH® Stationary Concrete Plant it includes generation of electricity for the production of concrete.

C1: De-construction and demolition

The deconstruction and demolition of the concrete plant takes place within the site that the product is installed and following the end of its technical lifespan. It is assumed that the process includes the same energy use as with plant's installation.

C2: Transportation to waste processing

Transportation of the discarded product either to the recycling site or to landfills for final disposal.

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

This module includes waste processing of the product after its life cycle, in order to be recycled and reused in another product system.

C4: Disposal

This module includes the final disposal of the discarded product.

D: Reuse-Recovery-Recycling-potential

Module D consists of avoided burdens related to the potential reuse and/or recycling of the product after its end-of-life stage.

All life cycle stages included as presented in Table 4 of c-PCR-026 Concrete batching plants.

LCA Information

Functional unit

The operation of the "ECOBATCH® Stationary Concrete Plant" needed to produce 1 m^3 (cubic meter) of concrete.

Cut-off

The cut-off criteria adopted is as stated in ''EN 15804:2012+A2:2019/AC:2021''. The cut-off rule was used for some packaging waste that derived from raw materials and components used for the plant's manufacturing and Maintenance, as they were less than 1%.

Time representativeness

Data for year 2021 were used.

Software used

OpenLCA v.2.0 was used.

Databases used

Ecoinvent 3.9.1

Goal and Scope

This EPD assesses environmental impacts of the ECOBATCH® Stationary Concrete Plant from cradle to grave (modules A1-A5 + B1-B6 + C1-C4) with resource- recovery stage (module D).

Geographical scope

Europe

Data quality

ISO 14044 was applied in terms of data collection and quality requirements. The impact of the production of raw materials recovered from Ecoinvent database v.3.9.1. The data concerning the modules A2 (Transportation) and A3 (Product manufacturing) and the data concerning module B6 (Operational energy use) were provided by **SPANOS** and concern the full year of 2021. These data represent the quantities of all input and output materials extracted from the company's ERP system, and the distances and means of transport for each input stream from purchase invoices and Google maps. Regarding operational energy use, the value was extracted from actual measurements. The Transportation of concrete batching plant to the installation site information was based on the most representative scenario and the Installation was based on actual scenario (experience). The end-of-life is based on the most representative scenarios for this product. Background data for this stage are retrieved from Ecoinvent v.3.9.

The data quality assessment performed shows a fair to very good quality levels for geographical, technical and time representativeness.

System Boundary

The type of EPD is is set to be Cradle-to-grave with module D module D (A+B+C+D).

Assumptions

Module A2: a EURO 4 lorry 16-32 metric ton was utilized for road transportation and a container ship freight for sea transportation.

Module A4: a EURO 4 lorry >32 metric ton was utilized for road transportation.

Module A5: the installation process includes the usage of a tower crane, and the diesel consumption of building machinery that was used. The impact of A5 is assumed to be equal to the impact of C1.

Module C2: a conservative assumption of 100 km by lorry >32 metric ton was used.

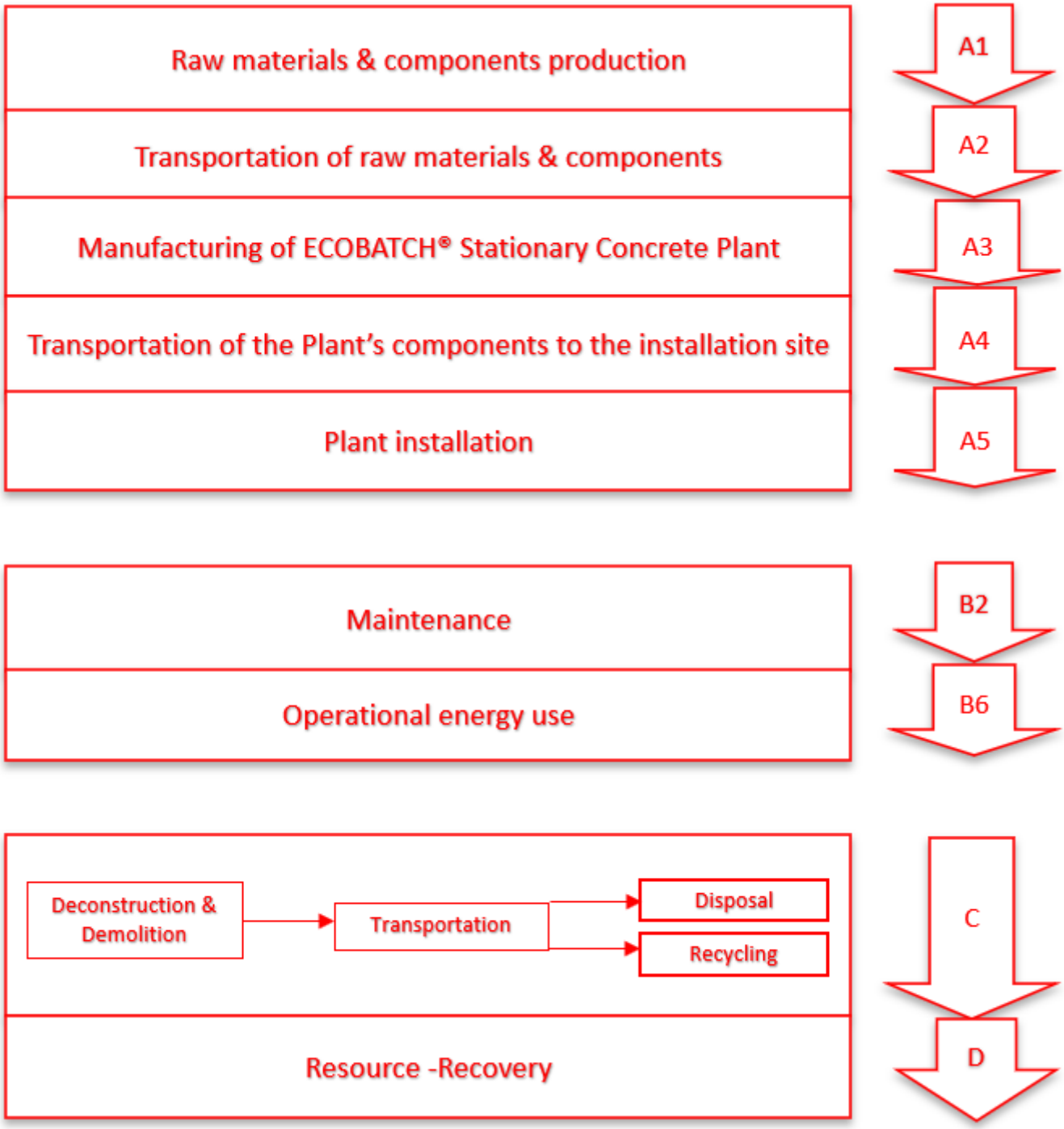
Module C3 and C4: The scenarios included are currently in use and are representative of one of the most probable alternatives.

For the estimation of waste processing for re-use/Recycling (C3) and Disposal (C4) the materials composing the plant were divided in Steel, Copper and Brass, Aluminium, Plastic and Oil. In order to estimate the recycling/re-use rates for those materials, relevant references referring to the average rates in European countries were used.

Allocations

Allocation rules have been performed in accordance with the requirements of ISO 14044:2006. In this case, no allocation was applied since no co-products were produced.

Flow diagram



Environmental performance of ECOBATCH® Stationary Concrete Plant

The GWP-GHG intensity (kg CO_2 eq./kWh) of the electricity used in module B6 is 0.36302 kg CO_2 eq./kWh.

All impact values are expressed per FU, i.e. "The operation of the "ECOBATCH® Stationary Concrete Plant" needed to produce 1 m^3 (cubic meter) of concrete".

Environmental impacts	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
GWP-total	kg CO2 eq	8.65E-02	2.04E-03	6.62E-05	1.67E-03	1.82E-01	6.62E-05	2.04E-04	1.02E-02	4.74E-05	-2.90E-02
GWP-fossil	kg CO2 eq	8.51E-02	2.04E-03	6.62E-05	1.67E-03	1.80E-01	6.62E-05	2.04E-04	1.02E-02	4.74E-05	-2.90E-02
GWP-biogenic	kg CO2 eq	1.29E-03	7.38E-07	1.03E-08	1.34E-06	1.14E-03	1.03E-08	7.38E-08	3.27E-05	8.75E-09	-1.32E-05
GWP-luluc	kg CO2 eq	7.66E-05	9.49E-07	7.32E-09	4.83E-07	4.43E-04	7.32E-09	9.49E-08	1.20E-05	9.09E-09	-1.76E-05
GWP-GHG[1]	kg CO2 eq	8.30E-02	1.98E-03	6.43E-05	1.62E-03	1.77E-01	6.43E-05	1.98E-04	9.98E-03	4.36E-05	-2.75E-02
ODP	kg CFC-11 eq	1.60E-09	4.38E-11	1.03E-12	3.82E-11	3.17E-09	1.03E-12	4.38E-12	1.26E-10	3.94E-13	-5.45E-10
AP	mol H+ eq	4.39E-04	8.26E-06	5.99E-07	3.18E-06	8.88E-04	5.99E-07	8.26E-07	4.96E-05	1.04E-07	-1.57E-04
EP-freshwater	kg P eq	4.24E-05	1.42E-07	1.98E-09	2.14E-07	1.62E-04	1.98E-09	1.42E-08	5.48E-06	2.47E-09	-1.57E-05
EP-marine	kg N eq	8.65E-05	3.13E-06	2.78E-07	6.07E-07	1.58E-04	2.78E-07	3.13E-07	9.57E-06	3.51E-07	-2.99E-05
EP-terrestrial	mol N eq	8.52E-04	3.34E-05	3.02E-06	5.90E-06	1.39E-03	3.02E-06	3.34E-06	9.90E-05	4.22E-07	-3.09E-04
POCP	kg NMVOC eq	3.54E-04	1.25E-05	8.94E-07	1.27E-05	4.49E-04	8.94E-07	1.25E-06	3.20E-05	1.49E-07	-1.54E-04
ADPe	kg Sb eq	1.77E-06	5.40E-09	2.26E-11	5.71E-09	3.47E-07	2.26E-11	5.40E-10	1.51E-07	2.17E-11	-6.58E-07
ADPf	MJ	1.06E+00	2.93E-02	8.47E-04	2.71E-02	4.05E+00	8.47E-04	2.93E-03	1.34E-01	3.35E-04	-2.75E-01
WDP[2]	m3 eq	2.33E-02	1.75E-04	2.20E-06	2.55E-04	1.33E-01	2.20E-06	1.75E-05	6.89E-03	1.51E-05	-2.05E-03

[1] GWP-GHG indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide emissions and uptake and biogenic carbon stored in the product, with characterization factors (CFs) based on IPCC (2013).

[2]The results of this environmental impact indicators of ADPf, ADPe and WDP shall be used with care as the uncertainties of these results are high or as there is limited experienced with the indicator.

Resource use	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
PERE	MJ	1.29E-01	4.29E-04	4.82E-06	6.33E-04	7.55E-01	4.82E-06	4.29E-05	1.93E-02	3.69E-06	-1.96E-02
PERM	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
PERT	MJ	1.29E-01	4.29E-04	4.82E-06	6.33E-04	7.55E-01	4.82E-06	4.29E-05	1.93E-02	3.69E-06	-1.96E-02
PENRE	MJ	1.06E+00	2.93E-02	8.47E-04	2.71E-02	4.05E+00	8.47E-04	2.93E-03	1.34E-01	3.35E-04	-2.75E-01
PENRM	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
PENRT	MJ	1.06E+00	2.93E-02	8.47E-04	2.71E-02	4.05E+00	8.47E-04	2.93E-03	1.34E-01	3.35E-04	-2.75E-01
SM	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
RSF	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
NRSF	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
FW	m3	5.42E-04	4.07E-06	5.12E-08	5.93E-06	3.09E-03	5.12E-08	4.07E-07	1.60E-04	3.51E-07	-4.78E-05

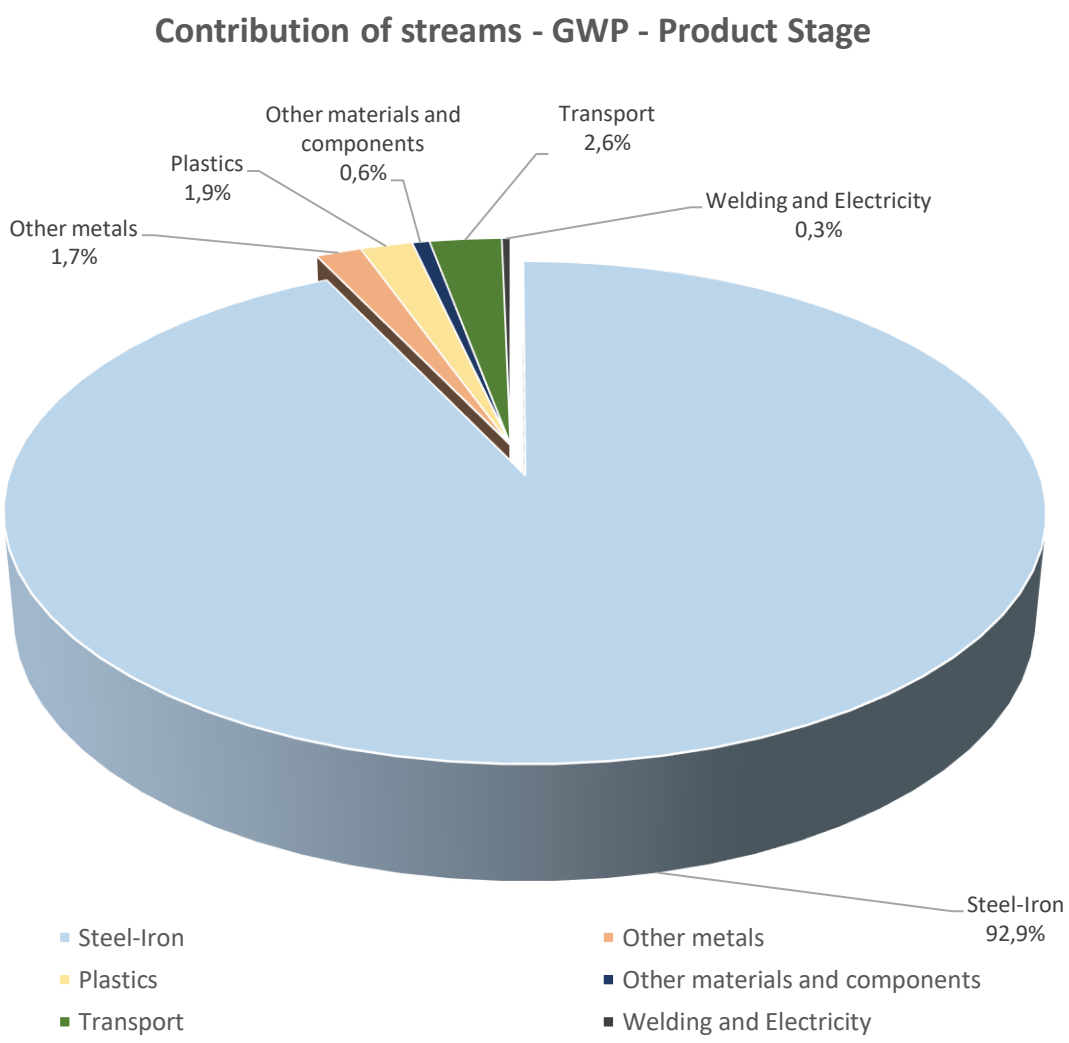
Output flows and waste categories	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
HWD	kg	5.25E-06	1.82E-07	5.70E-09	1.36E-07	5.15E-06	5.70E-09	1.82E-08	4.75E-07	1.77E-09	-2.20E-06
NHWD	kg	3.66E-02	2.57E-03	1.21E-06	7.32E-05	1.12E-02	1.21E-06	2.57E-04	7.35E-03	2.04E-03	-8.62E-03
RWD	kg	2.22E-06	8.93E-09	9.28E-11	1.72E-08	2.93E-05	9.28E-11	8.93E-10	6.34E-07	6.45E-11	1.84E-07
CRU	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
MFR	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
MER	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
EE	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

Additional impacts	Unit	A1-A3	A4	A5	B2	B6	C1	C2	C3	C4	D
PM	Disease incidence	5.85E-09	2.06E-10	1.67E-11	3.17E-11	3.00E-09	1.67E-11	2.06E-11	9.54E-10	2.28E-12	-2.28E-09
IRP[3]	kBq U235 eq	8.72E-03	3.70E-05	4.02E-07	6.84E-05	1.14E-01	4.02E-07	3.70E-06	2.48E-03	2.73E-07	6.91E-04
ETP-FW	CTUe	3.29E+00	2.84E-02	7.21E-04	1.92E-02	2.15E+00	7.21E-04	2.84E-03	2.40E-01	6.06E-03	-1.50E+00
HTP-c	CTUh	6.37E-10	9.08E-13	2.06E-14	5.00E-13	6.13E-11	2.06E-14	9.08E-14	4.53E-10	7.91E-13	1.59E-10
HTP-nc	CTUh	3.73E-09	2.73E-11	4.36E-13	1.21E-11	1.73E-09	4.36E-13	2.73E-12	3.82E-10	5.40E-11	-1.79E-09
SQP	dimensionless	3.88E-01	2.98E-02	5.60E-05	2.33E-03	6.16E-01	5.60E-05	2.98E-03	4.59E-02	6.90E-04	-7.39E-02

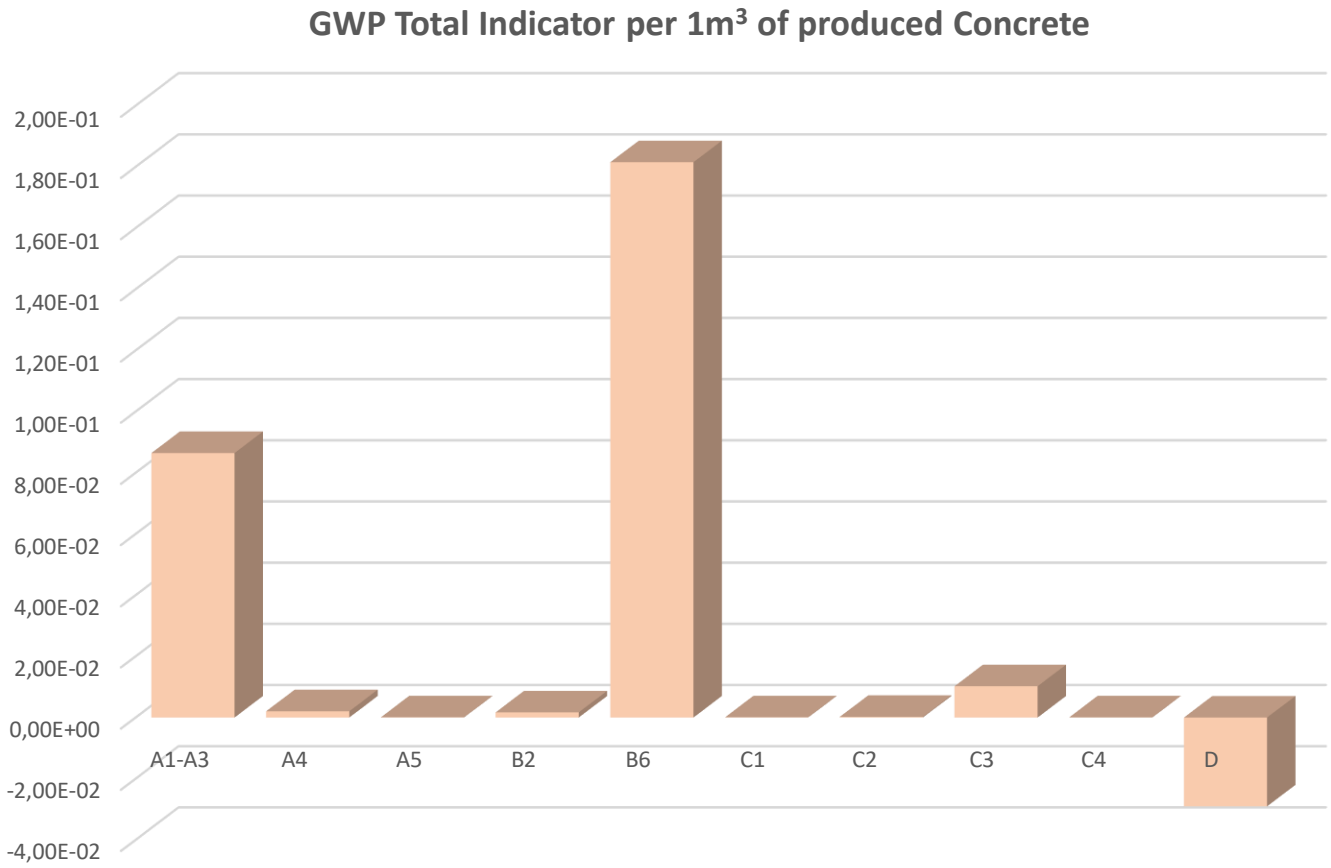
[3] Ionizing radiation potential (IRP) impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Interpretation

The main sources that affect impact indices for the product stage are the production of steel and iron materials used for the manufacturing of the ECOBATCH® Stationary Concrete Plant. As it is presented in the graph and based on GWP-Total index the production of steel related materials represents the vast majority of impact with a contribution of around 93%, while plastics, other metals and other materials and components represent the 1.9%, 1,7% and 0.6% of GWP-Total index respectively. Finally, other product stage activities including Transport and Manufacturing (welding and electricity) represent minor impacts with a contribution of 2.6% and 0.3% respectively of the GWP-Total index respectively.



The results of the GWP-Total index from each stage of the LCA are illustrated in the following figure. As the ECOBATCH® Stationary Concrete Plant is a product that is expected to produce large quantities of concrete for a long period of time, the most important impact derived from the use-stage. The second most important impact derived from the product stage as it includes all materials used for the production of the plant. All other stages present low to very low impacts compared to the use and product stage. Finally Reuse, recovery, recycling, potential (D) indicates an important benefits potential.



Additional Information

The EPD does not give information on release of dangerous substances to soil, water and indoor air because the horizontal standards on measurement of release of regulated dangerous substances from construction products using harmonized test methods according to the provisions of the respective technical committees for European product standards are not available.

List of abbreviations

LCA	Life Cycle assessment
EPD	Environmental Product Declaration
PCR	Product category rules
GLO	Global
RER	Europe
RoW	Rest of the world
GWP-total	Global Warming Potential total
GWP-fossil	Global Warming Potential fossil
GWP-biogenic	Global Warming Potential biogenic
GWP-luluc	Global Warming Potential land use and land use change
ODP	Ozone Depletion Potential
AP	Acidification Potential
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 photochemical oxidants
ADPe	Abiotic depletion potential for non-fossil resources
ADPf	Abiotic depletion potential for fossil resources
WDP	Water use
PERE	Use of renewable primary energy excluding 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 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
HWD	Hazardous waste disposed
NHWD	Non-hazardous waste disposed
RWD	Radioactive waste disposed
CRU	Components for re-use
MFR	Materials for recycling
MER	Materials for energy recovery
EE	Exported Energy
PM	Particulate matter emissions
IRP	Ionizing radiation, human health
ETP-FW	Ecotoxicity, freshwater
HTP-c	Human toxicity, cancer
HTP-nc	Human toxicity, non-cancer
SQP	Land use related impacts/Soil quality

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