ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

EPD HUB, HUB-5749
Published on 17.03.2026, last updated on 17.03.2026, valid until 16.03.2031

N25/10/100 Xencrete

Entire Concrete

This EPD is intended for business-to-business and/or business-to-consumer communication. Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1. The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

MANUFACTURER AND SITE

Manufacturer	Entire Concrete
Address	65 STENHOUSE DRIVE, Cameron Park New South Wales 2285
Contact details	adam@entireconcrete.com.au
Website	https://www.entireconcrete.com.au
Place of production	Hunter Valley, NSW, Australia
Place(s) of raw material origin	Hunter Valley, NSW, Australia
Place(s) of installation and use	Hunter Valley, NSW, Australia
Period for data	1st Jan 2024 to 31st Dec 2024

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804:2012+A2:2019/AC:2021 and ISO 14025
PCR	EPD Hub Core PCR version 1.2, 24 Mar 2025
cPCR	EN 16757 Product Category Rules for concrete and concrete elements
Sector	Construction product
Category of EPD	Third party verified EPD
Parent EPD number	-
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Jason Chandler, EPD on Demand
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Vera Durão, as an authorised verifier acting for EPD Hub Limited

PRODUCT SPECIFICATION

Product name	N25/10/100 Xencrete
Product reference	
Concrete type	Ready-mix concrete
Product standards	AS 1379-2007
Additional characteristic	-
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	3.6

PRODUCT DESCRIPTION

This ready-mixed concrete product is produced in accordance with AS1379:2007(2017) Specification and supply of concrete. The raw materials are proportioned so as to achieve a characteristic strength of 25MPa in accordance with the requirements of clause 6 of that Standard. The nominal maximum aggregate size is 10mm and the nominal consistence is 100mm slump when measured in accordance AS1012.3.1 Determination of properties related to the consistency of concrete - Slump test.

Application: General use concrete

PRODUCT CHARACTERISTICS

Compressive strength class:
N25
Strength evaluation days:
28 days
Exposure class:
A1

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 cubic meter
Declared unit mass, kg	2286
GWP-total, A1-A3 (kg CO_2e)	208
GWP-fossil, A1-A3 (kg CO_2e)	208
Secondary material, inputs (%)	5.58
Secondary material, outputs (%)	70
Total energy use, A1-A3 (kWh)	417
Net freshwater use, A1-A3 (m^3)	5.04E-01

WHO WE ARE

As the region's leading independent supplier of concrete Entire Concrete offers fast, quality assured ready-mix concrete for projects of all sizes throughout Newcastle, Singleton and the Hunter Valley. Beginning in 2008, Entire Concrete has rapidly grown to become the leading independent supplier of quality premixed concrete products in the Greater Hunter region.

At Entire Concrete, we pride ourselves on offering specialised concrete solutions tailored to your needs. From residential to commercial and industrial-scale projects, Entire Concrete has developed a reputation for quality, safety and efficiency when it comes to our products and our service. With a modern agitator fleet, housing 37 trucks, from 10-wheeled concrete trucks to smaller mini trucks, Entire Concrete is capable of servicing projects of all sizes.

Our experienced batching team works directly with customers to get projects completed, often exceeding customer expectations by providing a superior result from project start through to completion.

As a part of our continued growth within the ready-mix sector, Entire Concrete has two industry leading concrete plants in Cameron Park and Singleton. From these plants, we deliver our quality product throughout Newcastle and the Hunter Valley.

OUR COMMITMENT TO THE ENVIRONMENT

Entire Concrete is committed to implementing best practice environmental measures. At its inception, Entire Concrete began with the focus on local people, products and communities needs.

We believe it is a requirement that we actively contribute to the local community, and as such, Entire Concrete, the home of the green trucks, decided to go green in 2010.

Our strategy included;

- Moving toward long term sustainability with a view to become increasingly self-sufficient over time.
- Installation of a concrete recycler. Installing a concrete recycler reduces waste, eliminates the need for excess landfill and potential soil contaminants.
- Recycle the raw materials utilised in the manufacturing of concrete, including aggregates (rocks) sands, and cementitious materials (i.e. cement powder and flash).
- Reducing Entire Concrete's reliance on our natural environment by harvesting the rainwater that falls on site. Entire currently harvests approximately 450,000 litres of water.
- Installing a solar electricity system through Metro Solar, an Australian-based engineering firm who offered the new and innovative microinverter technology.

Today, the power generated through the use of solar technology is sufficient to power the company's on-site concrete recycler and water reticulation programs, another step in the road towards onsite self-sufficiency.

More recently we have begun incorporating the CEMI additive to our Xencrete range of lower carbon concretes to enable a greater use of flyash in our concrete, continuing to lead the way in sustainability and technical excellence.

LIFE CYCLE ASSESSMENT

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
x	x	x	x	x	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy	Operational water	Deconstr./demol.	Transport	Waste processing	Disposal	Reuse, Recovery, Recycling

Not declared = ND.

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging materials	Not applicable
Ancillary materials	Allocated by mass
Manufacturing energy and waste	Allocated by mass

- Flyash primary supplier data has been used (EPD #HUB-3862)
- Fuel used for mixing 1m3 of concrete was determined based on a 10-minute mixing time of the average load size of 5m3, for diesel burned in the full mixing mode of the concrete agitator barrel
- A market-based approach is used in modelling the electricity mix utilised in the factory. Renewables have been removed to provide a conservative approach, with such electricity being less than 0.3% of the total impact; this would have very little impact on the results
- Distribution Loss Factor (DLF) of 1.042 was applied to the electricity
- Electricity is composed of 94.40% Coal, 4.38% Gas and 1.23% Oil and contributes 1.7kg CO2e to the A1-A3 GWP Total value.
- Transport factors for raw materials, Aggregates 29-124km, Admixtures 137-206km, Cement 33-8367km
- A4, Distance of 11.9km is assumed
- A5, 3% waste, and 73.62MJ of diesel consumed

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple factories
Grouping method	Based on average results of product group - by total volume
Variation in GWP-fossil for A1-A3, %	-0.5% / +1.0%

This Environmental Product Declaration represents the average of multiple manufacturing sites. The declared results are based on production-weighted data from the reference year, reflecting the actual output of each plant. All included plants use comparable raw materials, mix designs, energy sources, and production technologies relevant to the declared concrete product.

The included facilities are: Cameron Park and Singleton.

The averaged dataset is considered representative of typical production for these products within the organisation. Variations between plants were assessed and determined not to materially affect the environmental profile of the declared product. Where differences existed (e.g., energy mix, transport distances), these were incorporated into the production-weighted average in accordance with EN 15804+A2 and ISO 14025. The declared results reflect the average performance of these sites and are representative of the company's overall production for this product.

PRODUCT RAW MATERIAL MAIN COMPOSITION

The product is a ready-mix concrete consisting of aggregates, cement, filler, admixtures, and water. Main material categories as per EPD Hub GPI are shown below:

Raw material category	Amount, mass- %	Material origin
Metals	0	
Minerals	100	Australia and Global
Fossil materials	0	
Bio-based materials	0	

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0

PRODUCT LIFE CYCLE

MANUFACTURING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

Ready-mix concrete production starts by transporting the binders, aggregates, and additives to the manufacturing site and storing them into closed silos and containers. The aggregates are then dosed onto a scale and transferred to a concrete mixer. All manufacturing sites covered by this document are 'dry batch' sites whereby the mixer is also the agitator barrel of the concrete truck. In the mixer, cement is added to the aggregates, after which the material is mixed dry. Water and additives are then added to the mixture, followed by further mixing. After mixing, the concrete mass is contained in the barrel of the concrete mixer truck, in which it is transported to the construction site.

No packaging is included as the product is transported with mixer trucks.

TRANSPORT AND INSTALLATION (A4-A5)

The concrete is transported to the building site using an average truck. Transportation impacts occurred from final products delivery to construction site cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions (A4).

Installation includes the energy used for concrete application. This consists of the energy spent by a concrete mixer truck and a concrete pump. A production loss of 3 % at installation is assumed (A5).

PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase. Air, soil, and water impacts during the use phase have not been studied. Carbonation is not taken into account in this EPD.

PRODUCT END OF LIFE (C1-C4, D)

At the end of its life, the concrete is assumed to be part of a concrete building that is demolished using machinery, consuming energy in the form of diesel (C1).

The concrete blocks gotten after the demolition are delivered 50 km by a truck to the nearest construction waste treatment (C2). It is assumed that 100% of the demolished concrete is transported to a site where this waste is processed by, crushing the blocks to gravel. About 70% of concrete can be recycled this way (C3), with an assumption that non-reinforced concrete is being sorted. The remaining 30% of concrete is assumed to be sent to the landfill for disposal (C4). The crushed concrete received from waste treatment can be used as a replacement for virgin gravel or for raw materials in road construction (D). The process losses of the waste treatment plant are assumed to be negligible.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA Concrete EPD Generator v3.2.3. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. Ecoinvent v3.10.1/3.11/3.12 and One Click LCA databases were used as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11/3.12 environmental data sources follow the methodology 'allocation, cut-off, EN 15804+A2'.

AS 1379 2007 - Specification and supply of concrete
AS 3600 2018 - Concrete Structures, Table 4.4
Australian energy statistics 2025 - Table O, Australian electricity generation, by state and territory, by fuel type, physical units.
https://www.energy.gov.au/publications/australian-energy-update-2025
Australian Energy Market Operator - Distribution Loss Factors For The 2024/25 Financial Year.
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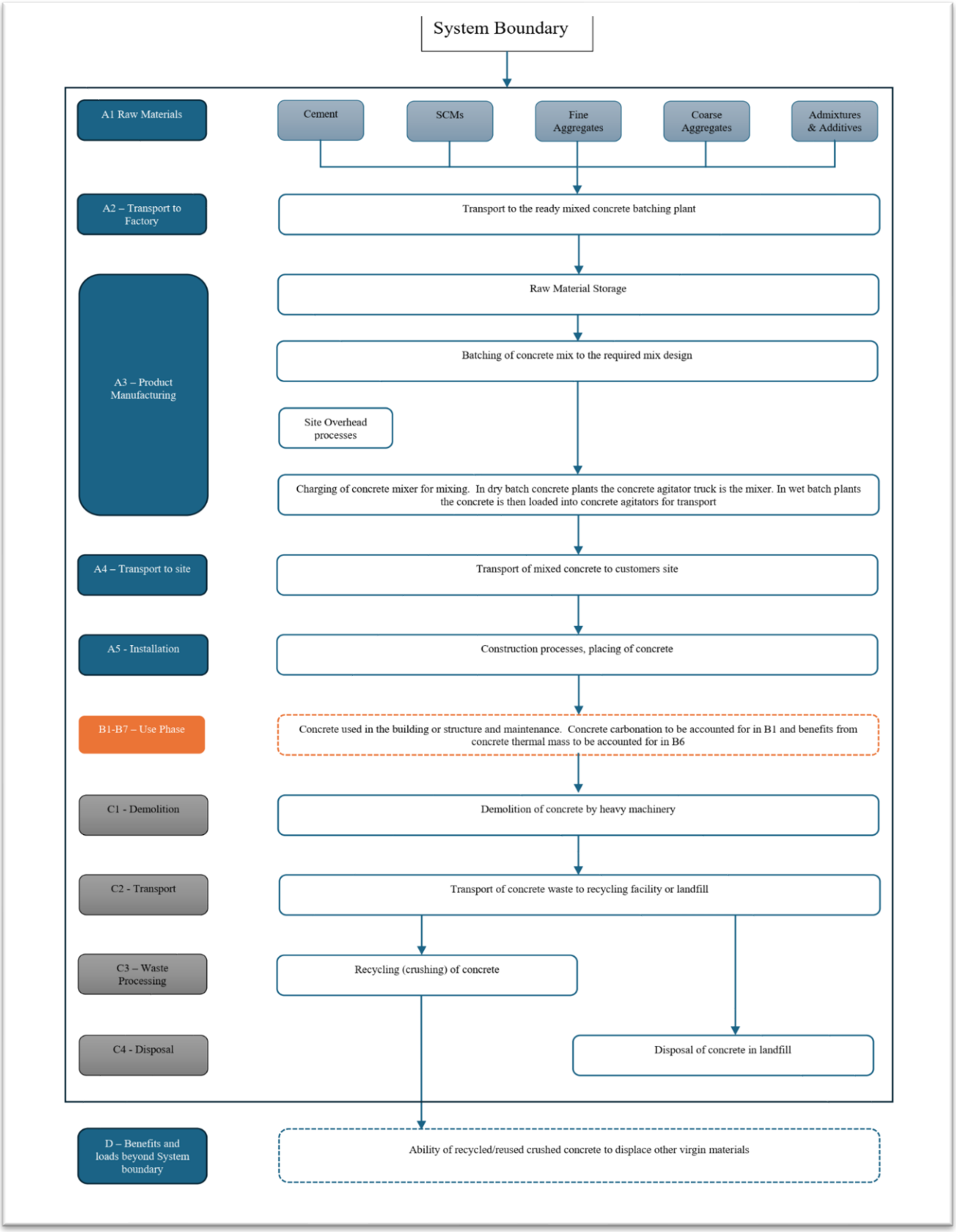
Diesel used in the mixing of concrete. https://unique-mixer.com/news/How_much_diesel_does_a_self_loading_concrete_mixer_consume_per_hour.html



MANUFACTURING PROCESS DIAGRAM (A1-A3)

ENVIRONMENTAL IMPACT DATA

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	1.75E+02	2.98E+01	3.67E+00	2.09E+02	2.93E+00	1.44E+01	ND	ND	ND	ND	ND	ND	ND	4.35E+00	1.23E+01	7.00E+00	4.28E+00	-1.18E+01
GWP – fossil	kg CO_2e	1.75E+02	2.98E+01	3.67E+00	2.08E+02	2.93E+00	1.44E+01	ND	ND	ND	ND	ND	ND	ND	4.35E+00	1.23E+01	7.00E+00	4.28E+00	-1.18E+01
GWP – biogenic	kg CO_2e	7.69E-02	6.29E-03	6.16E-04	8.38E-02	6.63E-04	3.31E-03	ND	ND	ND	ND	ND	ND	ND	4.44E-04	2.79E-03	-7.14E-04	-1.36E-03	-3.71E-02
GWP – LULUC	kg CO_2e	2.99E-02	1.56E-02	2.97E-04	4.58E-02	1.31E-03	2.43E-03	ND	ND	ND	ND	ND	ND	ND	4.46E-04	5.50E-03	7.17E-04	2.45E-03	-1.63E-02
Ozone depletion pot.	kg CFC_{-11}e	1.10E-06	4.35E-07	3.90E-08	1.58E-06	4.32E-08	1.74E-07	ND	ND	ND	ND	ND	ND	ND	6.66E-08	1.82E-07	1.07E-07	1.24E-07	-9.91E-07
Acidification potential	mol H^+e	9.64E-01	3.41E-01	2.76E-02	1.33E+00	9.98E-03	1.11E-01	ND	ND	ND	ND	ND	ND	ND	3.93E-02	4.19E-02	6.32E-02	3.03E-02	-7.73E-02
EP-freshwater[2)]	kg Pe	8.33E-03	1.89E-03	4.15E-04	1.06E-02	2.28E-04	5.84E-04	ND	ND	ND	ND	ND	ND	ND	1.26E-04	9.58E-04	2.02E-04	3.52E-04	-6.99E-04
EP-marine	kg Ne	9.37E-02	8.45E-02	9.11E-03	1.87E-01	3.28E-03	3.82E-02	ND	ND	ND	ND	ND	ND	ND	1.82E-02	1.38E-02	2.93E-02	1.16E-02	-1.67E-02
EP-terrestrial	mol Ne	3.26E+00	9.35E-01	9.86E-02	4.29E+00	3.57E-02	4.86E-01	ND	ND	ND	ND	ND	ND	ND	1.99E-01	1.50E-01	3.21E-01	1.26E-01	-2.18E-01
POCP ("smog")[3)]	kg NMVOCe	8.19E-01	2.91E-01	2.96E-02	1.14E+00	1.47E-02	1.41E-01	ND	ND	ND	ND	ND	ND	ND	5.95E-02	6.18E-02	9.57E-02	4.53E-02	-5.60E-02
ADP-minerals & metals[4)]	kg Sbe	7.33E-04	6.63E-05	1.16E-06	8.00E-04	8.17E-06	2.82E-05	ND	ND	ND	ND	ND	ND	ND	1.56E-06	3.43E-05	2.51E-06	6.80E-06	-1.19E-04
ADP-fossil resources	MJ	9.65E+02	4.09E+02	4.54E+01	1.42E+03	4.25E+01	1.52E+02	ND	ND	ND	ND	ND	ND	ND	5.69E+01	1.79E+02	9.16E+01	1.05E+02	-1.76E+02
Water use[5)]	m^3e depr.	3.41E+01	1.80E+00	1.51E+01	5.10E+01	2.10E-01	1.82E+00	ND	ND	ND	ND	ND	ND	ND	1.42E-01	8.82E-01	2.29E-01	3.03E-01	-2.34E+01

1) GWP = Global Warming Potential. 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e. 3) POCP = Photochemical ozone formation. 4) ADP = Abiotic depletion potential. 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	9.87E-06	2.24E-06	6.36E-07	1.27E-05	2.93E-07	2.75E-06	ND	ND	ND	ND	ND	ND	ND	1.12E-06	1.23E-06	1.37E-05	6.91E-07	-9.91E-07
Ionizing radiation[6)]	kBq U235e	1.26E+03	3.13E-01	3.59E-02	1.26E+03	3.70E-02	3.80E+01	ND	ND	ND	ND	ND	ND	ND	2.52E-02	1.55E-01	4.06E-02	6.60E-02	-2.79E+00
Ecotoxicity (freshwater)	CTUe	2.43E+02	4.99E+01	1.70E+01	3.10E+02	6.01E+00	1.60E+01	ND	ND	ND	ND	ND	ND	ND	3.13E+00	2.53E+01	5.04E+00	8.81E+00	-2.11E+02
Human toxicity. cancer	CTUh	2.29E-07	5.56E-09	3.07E-10	2.35E-07	4.83E-10	7.94E-09	ND	ND	ND	ND	ND	ND	ND	4.47E-10	2.03E-09	7.20E-10	7.89E-10	-1.22E-08
Human tox. non-cancer	CTUh	7.98E-06	2.15E-07	1.33E-08	8.21E-06	2.75E-08	2.63E-07	ND	ND	ND	ND	ND	ND	ND	7.08E-09	1.16E-07	1.14E-08	1.81E-08	-2.24E-07
SQP[7)]	-	1.86E+03	2.93E+02	6.52E+00	2.15E+03	4.28E+01	8.45E+01	ND	ND	ND	ND	ND	ND	ND	3.99E+00	1.80E+02	6.42E+00	2.07E+02	-1.69E+02

6) EN 15804+A2 disclaimer for Ionizing radiation. human health. 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 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. 7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy[8)]	MJ	3.57E+01	5.01E+00	3.62E-01	4.10E+01	5.82E-01	1.98E+00	ND	ND	ND	ND	ND	ND	ND	3.60E-01	2.45E+00	5.80E-01	1.01E+00	-1.74E+01
Renew. PER as material	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renew. PER	MJ	3.57E+01	5.01E+00	3.62E-01	4.10E+01	5.82E-01	1.98E+00	ND	ND	ND	ND	ND	ND	ND	3.60E-01	2.45E+00	5.80E-01	1.01E+00	-1.74E+01
Non-re. PER as energy	MJ	9.79E+02	4.09E+02	4.57E+01	1.43E+03	4.25E+01	1.52E+02	ND	ND	ND	ND	ND	ND	ND	5.69E+01	1.79E+02	9.16E+01	1.05E+02	-1.81E+02
Non-re. PER as material	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-re. PER	MJ	9.79E+02	4.09E+02	4.57E+01	1.43E+03	4.25E+01	1.52E+02	ND	ND	ND	ND	ND	ND	ND	5.69E+01	1.79E+02	9.16E+01	1.05E+02	-1.81E+02
Secondary materials	kg	1.27E+02	0.00E+00	0.00E+00	1.27E+02	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renew. secondary fuels	MJ	2.52E+01	1.67E-03	4.31E-05	2.52E+01	2.30E-04	7.55E-01	ND	ND	ND	ND	ND	ND	ND	6.18E-05	9.65E-04	9.94E-05	5.47E-04	-1.40E-03
Non-ren. secondary fuels	MJ	8.10E-01	0.00E+00	0.00E+00	8.10E-01	0.00E+00	2.43E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	m^3	4.24E-01	5.14E-02	2.91E-02	5.04E-01	6.28E-03	2.59E-02	ND	ND	ND	ND	ND	ND	ND	3.76E-03	2.64E-02	6.06E-03	1.09E-01	-5.43E-01

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	2.12E-01	6.76E-01	3.15E-02	9.19E-01	7.20E-02	1.53E-01	ND	ND	ND	ND	ND	ND	ND	6.33E-02	3.02E-01	1.02E-01	1.16E-01	-1.37E+00
Non-hazardous waste	kg	4.09E+00	1.15E+01	5.92E-01	1.62E+01	1.33E+00	2.28E+00	ND	ND	ND	ND	ND	ND	ND	8.63E-01	5.60E+00	1.39E+00	2.65E+00	-2.53E+01
Radioactive waste	kg	3.05E-04	7.65E-05	6.43E-06	3.88E-04	9.06E-06	2.43E-05	ND	ND	ND	ND	ND	ND	ND	6.18E-06	3.81E-05	9.95E-06	1.61E-05	-3.49E-04

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	1.54E-11	0.00E+00	1.82E+01	1.82E+01	0.00E+00	4.86E+01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	1.60E+03	0.00E+00	0.00E+00
Materials for energy rec	Kg	8.04E-20	0.00E+00	0.00E+00	8.04E-20	0.00E+00	2.41E-21	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	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	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy: Heat	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1. CML

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO_2e	1.75E+02	2.97E+01	3.65E+00	2.08E+02	2.91E+00	1.44E+01	ND	ND	ND	ND	ND	ND	ND	4.33E+00	1.22E+01	6.97E+00	4.24E+00	-1.46E+01
Ozone depletion Pot.	kg $CFC_{-11}e$	4.32E-06	3.46E-07	3.19E-08	4.70E-06	3.45E-08	2.41E-07	ND	ND	ND	ND	ND	ND	ND	5.28E-08	1.45E-07	8.50E-08	9.85E-08	-1.01E-07
Acidification	kg SO_2e	4.10E-01	2.73E-01	2.12E-02	7.04E-01	7.62E-03	7.11E-02	ND	ND	ND	ND	ND	ND	ND	2.76E-02	3.20E-02	4.44E-02	2.25E-02	-7.02E-02
Eutrophication	kg PO_4^3e	1.04E-01	3.48E-02	4.32E-03	1.43E-01	1.86E-03	1.60E-02	ND	ND	ND	ND	ND	ND	ND	6.45E-03	7.81E-03	1.04E-02	7.14E-03	-1.38E-02
POCP (“smog”)	kg C_2H_4e	1.91E-02	1.55E-02	1.27E-03	3.58E-02	6.80E-04	4.85E-03	ND	ND	ND	ND	ND	ND	ND	2.07E-03	2.86E-03	3.33E-03	2.12E-03	-6.25E-03
ADP-elements	kg Sbe	7.28E-04	6.48E-05	1.13E-06	7.93E-04	7.97E-06	2.79E-05	ND	ND	ND	ND	ND	ND	ND	1.52E-06	3.35E-05	2.44E-06	6.67E-06	-8.01E-05
ADP-fossil	MJ	9.64E+02	4.04E+02	4.52E+01	1.41E+03	4.19E+01	1.51E+02	ND	ND	ND	ND	ND	ND	ND	5.65E+01	1.76E+02	9.09E+01	1.04E+02	-1.80E+02

ADDITIONAL INDICATOR – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG [9)]	kg CO_2e	1.75E+02	2.98E+01	3.67E+00	2.09E+02	2.93E+00	1.44E+01	ND	ND	ND	ND	ND	ND	ND	4.35E+00	1.23E+01	7.00E+00	4.28E+00	-1.18E+01

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition. the characterisation factors for the flows - CH4 fossil. CH4 biogenic and Dinitrogen monoxide - were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterization factor for biogenic CO2 is set to zero.

SCENARIO DOCUMENTATION
DATA SOURCES

Manufacturing energy scenario documentation – A3 (Energy data source)

1. Construction. specialized activities. demolition and site preparation. Diesel. burned in building machine. World. ecoinvent 3.11, 0.10 kgCO2e/MJ
2. Electricity. Electricity, consumption mix w/o renewables. New south wales, 2024, Australia, LCA study for country specific consumption mixes. OneClickLCA 2025. 1.14 kgCO2e/kWh

Installation scenario documentation - A5 (Diesel consumption)

1. Diesel, burned in building machine, World, ecoinvent 3.10.1, 0.1 kg CO2e/MJ

TRANSPORT SCENARIO DOCUMENTATION - A4

Scenario parameter	Value
Vehicle type used for transport (e.g.. long distance truck, boat, etc.) / Vehicle type. Commission Directive 2007/37/EC (European Emission Standard)	Concrete mixer truck
Distance. km	11.9
Capacity utilization (including empty return) %	50 %
Bulk density of transported products / kg/m³	2286
Volume capacity utilization factor (factor: =1 or <1 or ≥1 for compressed or nested packaged products)	1

INSTALLATION SCENARIO DOCUMENTATION - A5

Scenario parameter	Value
Ancillary materials for installation (specified by material) / kg or other units as appropriate	0
Water use / m³	0
Other resource use / kg	0
Waste materials on the building site before waste processing. generated by the product's installation (specified by type) / kg	6.86E+01
Output materials as result of waste processing at the building site e.g. collection for recycling / kg	4.80E+01
Output materials as result of waste processing at the building site e.g. collection for disposal / kg	2.06E+01
Direct emissions to ambient air. soil and water / kg	0

END OF LIFE SCENARIO DOCUMENTATION

Scenario information	Value
Collection process – kg collected separately	0
Collection process – kg collected with mixed construction waste	2286
Recovery process – kg for re-use	0
Recovery process – kg for recycling	1.60E+03
Recovery process – kg for energy recovery	0
Disposal (total) – kg for final deposition	6.86E+02
Scenario assumptions e.g. transportation	Market for transport, freight, lorry >32 metric ton. EURO5; 50km

THIRD-PARTY VERIFICATION STATEMENT

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent. third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15804+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

Program assistant: Xinyuan Zhang

The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010. ISO 14040/14044. EN 15804+A2. and EPD Hub Core Product Category Rules and General Program Instructions.

Verified tools
Tool verifier: Imane Uald Lamkaddam
Tool verification validity: 28 March 2025 - 27 March 2028