STEYPUSTÖÐIN

STERKARI LAUSNIR

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Precast Hollow core slab
Steypustöðin ehf

EPD HUB, HUB-4903
Published on 20.01.2026, last updated on 20.01.2026, valid until 19.01.2031

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.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Steypustöðin ehf
Address	Malarhöfði 10, 110 Reykjavík, Iceland
Contact details	steypustodin@steypustodin.is
Website	www.steypustodin.is

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
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	Lilja S. Davíðsdóttir, VSÓ Ráðgjöf
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Sarah Curpen, as authorized verifier acting for EPD HUB Limited

This EPD is intended for business-to-business and/or business-to-consumer communication. 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.

PRODUCT

Product name	Precast Hollow core slab
Additional labels	-
Product reference	-
Place(s) of raw material origin	Iceland, Denmark, Norway, Portugal
Place of production	Iceland
Place(s) of installation and use	Iceland
Period for data	Calendar year 2024
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	-
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	97,6

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 ton of precast hollow core slab
Declared unit mass	1000 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	1,41E+02
GWP-total, A1-A3 ($kgCO_2e$)	1,40E+02
Secondary material, inputs (%)	2,04
Secondary material, outputs (%)	0
Total energy use, A1-A3 (kWh)	454
Net freshwater use, A1-A3 (m^3)	1

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Steypustöðin's primary focus lies in the production of high-quality wet concrete, adhering to all building regulation requirements regarding additives and fillers. Steypustöðin prioritize product development and continuously strive to incorporate innovative production methods. In 2016, Steypustöðin broadened its service offerings for customers in precast units, hollow core plates, filigree plates, and Steypustöðin produces precast, prestressed hollow-core concrete slabs at its factory in Borgarnes, Iceland.

PRODUCT DESCRIPTION

Steypustöðin produces precast, prestressed hollow-core concrete slabs at its factory in Borgarnes, Iceland. Hollow-core slabs are intended primarily for use as structural floor or roof elements in buildings.
The slabs are manufactured in a standard width of 1,200 mm, with thicknesses of 200 mm, 265 mm, 320 mm, and 400 mm. Lengths are designed to fit the requirements of each specific building project, up to a maximum of 18 m. Prestressed steel cables (strands of 12.5 mm diameter) are embedded in the slabs to provide structural strength and efficiency. The number of strands used depends on slab thickness, ranging as follows:
• 200 mm thickness: minimum 7, maximum 7 strands
• 265 mm thickness: minimum 6, maximum 10 strands
• 320 mm thickness: minimum 5, maximum 14 strands
• 400 mm thickness: minimum 5, maximum 14 strands
The end edges of the panels can be geometrically shaped (cut diagonally or stepped) according to design needs. The internal cross-sectional voids vary according to the required structural performance, and the side profiles can be adjusted or modified based on the design specifications.
Manufacturing is carried out using Elimatic machinery and computer-controlled software to ensure precision and consistency.
• Maximum width: 1,200 mm
• Certificate of compliance: EN 1168:2005+A3:2011 (last renewed 31 Oct 2023)
• Concrete standard: EN 206
• Concrete used: C50/60 XF1 D16 S1

Further information can be found at:
www.steypustodin.is

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	1	Europe
Minerals	99	Europe
Fossil materials	-	-
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product’s biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0,11

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 ton of precast hollow core slab
Mass per declared unit	1000 kg
Functional unit	-
Reference service life	-

SUBSTANCES, REACH - VERY HIGH CONCERN

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

PRODUCT LIFE-CYCLE

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 use	Operational water use	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = ND. Modules not relevant = MNR

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. 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.

A market-based approach is used in modelling the electricity mix utilized in the factory.
The production of the hollow-core slab begins with the preparation of the casting bed, which includes cleaning the casting platform and applying form oil. At the same time, reinforcement steel braids are put into place. In this stage, steel tendon braids are pulled by a brush machine to the end of the casting platform. When the reinforcements are in place they are tensioned, after which wet concrete is poured onto the cast by a moving mold. After casting, the slab is covered and left to cure. When the slab is cured it is cut into the desired size. Before cutting, the braids are cut off. In finishing, cavity plugs are added to the cavities at the open ends of the slab. The hollow core slabs are then transferred on wooden pallets.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

Average distance of transportation from production plant to retailer's site is assumed as 204 km and the transportation method is assumed to be lorry. Vehicle capacity utilization volume factor is assumed to be 1 which means full load. In reality, it may vary but as role of transportation emissions in total results is small, the variety in load is assumed to be negligible. To be conservative, empty returns are included in this study as implemented through an average load factor in the Ecoinvent transport datapoints. Transportation does not cause losses as product is packaged properly. Environmental impacts from installation into the building include generation of waste packaging materials (A5) and release of biogenic carbon dioxide from wood pallets.

The pallet is sent to recycling (32%), landfilling (38%), and incineration with energy recovery (30%) according to the average EU scenario. This modelling is based on EUROSTAT data.

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.

PRODUCT END OF LIFE (C1-C4, D)

Energy consumption for demolition of the hollow-core slab is assumed to be 10 kWh/m^2 based on Seçer & Bozdağ, 2007. The average mass of mineral waste in demolition of buildings in Iceland is 1865,33 kg/m^2 (Sigurbjörnsdóttir & Svavarsson, 2019). Therefore it is assumed for the demolition that the building machines use 0,0054 kWh/kg. The source of energy is diesel fuel used by building machines (C1).

100% of the dismantled hollow-core slab is assumed to be collected as separate construction waste and transported to the nearest construction waste treatment plant. It is estimated that there is no mass loss during the use of the product, therefore the end-of-life product is assumed that it has the same weight with the declared product. Transportation distance to treatment is assumed as 25 km and the transportation method is assumed to be lorry (C2).

100% of concrete and 100% of steel are assumed to be sent to the landfill (C4).

SYSTEM DIAGRAM

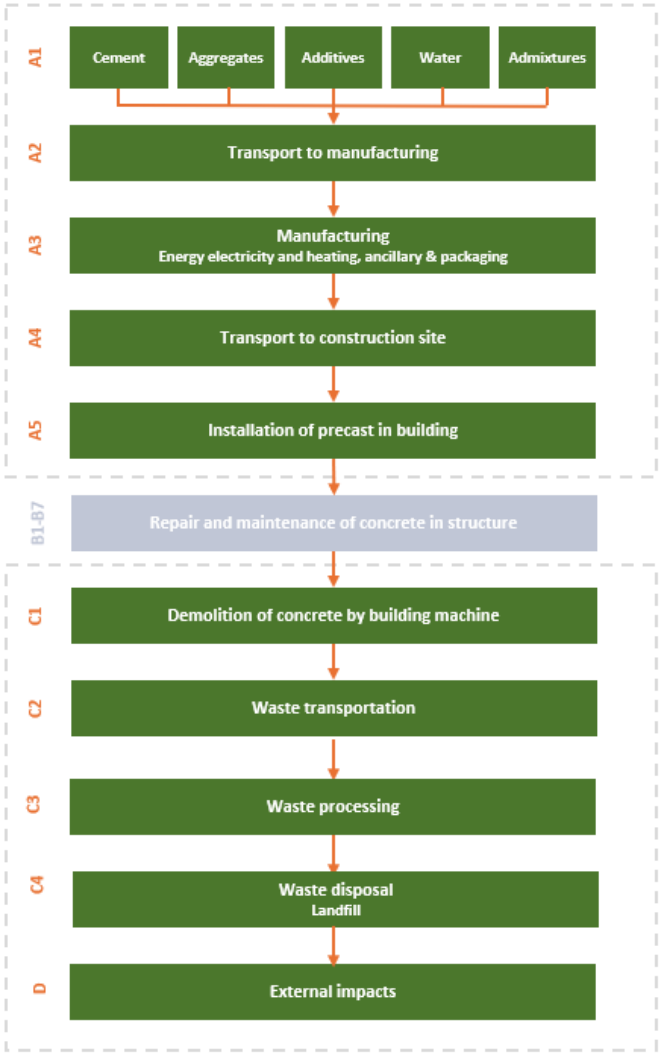

Figure 1 Overview of Included Modules. B phases not included.

LIFE-CYCLE ASSESSMENT

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. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. 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.

This LCA study includes the provision of all materials, transportation, energy and emission flows, and end of life processing of product. All industrial processes from raw material acquisition and pre-processing, production, product distribution and installation and end-of-life management are included. Due to lack of data, some materials are excluded but they do not exceed the 1% cut-off criteria. These include materials which are used in the product only in very small amounts and have a negligible impact on the emissions of the product.
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

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. 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 material	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

All estimations and assumptions are given below.

Proxy data is used for certain materials due to their unavailability in the database.
is assumed to be 1 which means full load. It may vary but as the role of transportation emission in total results is small, the variety in load is assumed to be negligible. To be conservative, empty returns are included in this study as implemented through an average load factor in the Ecoinvent transport datapoints.
are packaged properly. Also, volume capacity utilization factor is assumed to

be 1 for the nested packaged products. Additionally, transportation distances are assumed based on a particular scenario of customer's premises in 204 KM and a lorry is the assumed vehicle type used.

- Module A5: Packaging waste is declared as installation waste.
- Module C2: Transportation distance to waste handling facility is estimated as 25 km and the transportation method is assumed as lorry.
- Module C3, C4, D: 100% of concrete is assumed to be landfilled. Module D Benefits and loads of wooden pallets incineration after 1 time use is calculated. The packaging materials incinerated for energy recovery displace electricity and heat production, while recycled materials displace the need for virgin material production.

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	No grouping
Grouping method	Not applicable
Variation in GWP-fossil for A1-A3, %	-

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

LCA SOFTWARE AND BIBLIOGRAPHY

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

Bozdağ, Ö., & Seçer, M. (2007). Energy consumption of RC buildings during their life cycle.
Sigurbjörnsdóttir & Svavarsson. (2019). Kortlagning byggingarúrgangs. https://www.graennibyggd.is/_files/ugd/54e708_e755c06e00f647b79b31351bb99b20a5.pdf
íbúðabygginga á Íslandi. Náttúrufræðingurinn. 94. 10.33112/nfr.94.3.3.
EUROSTAT data
Ecoinvent

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	1,01E+02	5,21E+00	3,44E+01	1,40E+02	2,20E+01	4,20E-01	ND	ND	ND	ND	ND	ND	ND	1,93E+00	4,84E+00	0,00E+00	6,24E+00	-9,93E-02
GWP – fossil	kg CO_2e	1,01E+02	5,21E+00	3,48E+01	1,41E+02	2,20E+01	9,20E-03	ND	ND	ND	ND	ND	ND	ND	1,93E+00	4,84E+00	0,00E+00	6,24E+00	-2,23E-02
GWP – biogenic	kg CO_2e	1,31E-02	1,05E-03	-4,05E-01	-3,91E-01	4,98E-03	4,11E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,59E-04	0,00E+00	-1,99E-03	-7,70E-02
GWP – LULUC	kg CO_2e	4,59E-02	2,07E-03	1,03E-03	4,90E-02	9,83E-03	1,40E-05	ND	ND	ND	ND	ND	ND	ND	1,98E-04	1,71E-03	0,00E+00	3,57E-03	-3,46E-05
Ozone depletion pot.	kg CFC-$_{11}$e	1,71E-06	9,34E-08	1,57E-06	3,37E-06	3,24E-07	1,52E-10	ND	ND	ND	ND	ND	ND	ND	2,96E-08	9,60E-08	0,00E+00	1,81E-07	-2,74E-10
Acidification potential	mol H^+e	4,33E-01	3,06E-02	1,78E-01	6,42E-01	7,49E-02	5,10E-05	ND	ND	ND	ND	ND	ND	ND	1,74E-02	1,51E-02	0,00E+00	4,43E-02	-1,40E-04
EP-freshwater[2)]	kg Pe	3,39E-03	3,43E-04	5,21E-03	8,95E-03	1,71E-03	2,45E-06	ND	ND	ND	ND	ND	ND	ND	5,58E-05	3,21E-04	0,00E+00	5,13E-04	-1,38E-05
EP-marine	kg Ne	6,82E-02	8,90E-03	2,66E-02	1,04E-01	2,46E-02	5,48E-05	ND	ND	ND	ND	ND	ND	ND	8,09E-03	5,10E-03	0,00E+00	1,69E-02	-2,13E-05
EP-terrestrial	mol Ne	1,21E+00	9,76E-02	2,74E-01	1,58E+00	2,68E-01	2,08E-04	ND	ND	ND	ND	ND	ND	ND	8,86E-02	5,55E-02	0,00E+00	1,84E-01	-2,10E-04
POCP ("smog")[3)]	kg NMVOCe	3,25E-01	3,47E-02	8,08E-02	4,40E-01	1,10E-01	6,83E-05	ND	ND	ND	ND	ND	ND	ND	2,64E-02	2,37E-02	0,00E+00	6,60E-02	-6,82E-05
ADP-minerals & metals[4)]	kg Sbe	4,65E-04	1,51E-05	5,60E-06	4,86E-04	6,13E-05	2,48E-08	ND	ND	ND	ND	ND	ND	ND	6,93E-07	1,58E-05	0,00E+00	9,92E-06	-2,84E-08
ADP-fossil resources	MJ	5,73E+02	7,28E+01	4,81E+02	1,13E+03	3,19E+02	1,31E-01	ND	ND	ND	ND	ND	ND	ND	2,53E+01	6,79E+01	0,00E+00	1,53E+02	-3,66E-01
Water use[5)]	m^3e depr.	2,93E+01	3,44E-01	2,92E+02	3,22E+02	1,57E+00	3,52E-03	ND	ND	ND	ND	ND	ND	ND	6,31E-02	3,33E-01	0,00E+00	4,42E-01	-7,07E-03

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	3,63E-06	4,13E-07	3,68E-07	4,41E-06	2,20E-06	9,07E-10	ND	ND	ND	ND	ND	ND	ND	4,96E-07	3,80E-07	0,00E+00	1,01E-06	-1,19E-09
Ionizing radiation[6]	kBq U235e	7,74E+00	7,92E-02	7,85E+00	1,57E+01	2,78E-01	3,40E-04	ND	ND	ND	ND	ND	ND	ND	1,12E-02	8,64E-02	0,00E+00	9,63E-02	-7,04E-03
Ecotoxicity (freshwater)	CTUe	2,31E+02	9,39E+00	5,58E+01	2,96E+02	4,51E+01	4,35E-02	ND	ND	ND	ND	ND	ND	ND	1,39E+00	8,93E+00	0,00E+00	1,29E+01	-4,37E-02
Human toxicity, cancer	CTUh	9,65E-08	9,02E-10	1,99E-09	9,94E-08	3,63E-09	4,47E-12	ND	ND	ND	ND	ND	ND	ND	1,99E-10	8,24E-10	0,00E+00	1,15E-09	-4,63E-12
Human tox. non-cancer	CTUh	4,38E-06	4,36E-08	1,43E-07	4,57E-06	2,06E-07	2,46E-10	ND	ND	ND	ND	ND	ND	ND	3,15E-09	4,26E-08	0,00E+00	2,64E-08	-1,88E-10
SQP[7]	-	8,85E+01	4,83E+01	4,95E+01	1,86E+02	3,21E+02	1,22E-01	ND	ND	ND	ND	ND	ND	ND	1,77E+00	4,04E+01	0,00E+00	3,02E+02	-1,33E-01

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	7,09E+01	1,12E+00	9,94E+00	8,20E+01	4,37E+00	-3,97E+00	ND	ND	ND	ND	ND	ND	ND	1,60E-01	1,17E+00	0,00E+00	1,48E+00	4,54E-01
Renew. PER as material	MJ	0,00E+00	0,00E+00	4,09E+00	4,09E+00	0,00E+00	-4,09E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,72E-01
Total use of renew. PER	MJ	7,09E+01	1,12E+00	1,40E+01	8,61E+01	4,37E+00	-8,06E+00	ND	ND	ND	ND	ND	ND	ND	1,60E-01	1,17E+00	0,00E+00	1,48E+00	1,13E+00
Non-re. PER as energy	MJ	5,38E+02	7,28E+01	5,27E+02	1,14E+03	3,19E+02	1,31E-01	ND	ND	ND	ND	ND	ND	ND	2,53E+01	6,79E+01	0,00E+00	1,53E+02	-3,66E-01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	2,70E-01	2,70E-01	0,00E+00	-2,70E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,50E-02
Total use of non-re. PER	MJ	5,38E+02	7,28E+01	5,27E+02	1,14E+03	3,19E+02	-1,39E-01	ND	ND	ND	ND	ND	ND	ND	2,53E+01	6,79E+01	0,00E+00	1,53E+02	-3,21E-01
Secondary materials	kg	2,04E+01	3,28E-02	1,66E-02	2,05E+01	1,36E-01	8,70E-05	ND	ND	ND	ND	ND	ND	ND	1,05E-02	3,11E-02	0,00E+00	3,85E-02	-4,73E-05
Renew. secondary fuels	MJ	1,91E+02	3,82E-04	1,38E-01	1,91E+02	1,72E-03	8,81E-07	ND	ND	ND	ND	ND	ND	ND	2,74E-05	3,93E-04	0,00E+00	7,97E-04	-3,22E-07
Non-ren. secondary fuels	MJ	2,25E+02	0,00E+00	0,00E+00	2,25E+02	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
Use of net fresh water	m^3	5,97E-01	9,64E-03	3,94E-01	1,00E+00	4,71E-02	-3,44E-04	ND	ND	ND	ND	ND	ND	ND	1,67E-03	9,14E-03	0,00E+00	1,59E-01	-2,76E-04

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	1,25E+00	1,09E-01	1,87E-02	1,37E+00	5,40E-01	8,27E-04	ND	ND	ND	ND	ND	ND	ND	2,81E-02	9,76E-02	0,00E+00	1,69E-01	-1,59E-03
Non-hazardous waste	kg	1,62E+01	2,15E+00	2,03E+00	2,04E+01	9,99E+00	6,02E-01	ND	ND	ND	ND	ND	ND	ND	3,83E-01	2,06E+00	0,00E+00	3,87E+00	-6,98E-02
Radioactive waste	kg	2,39E-03	1,96E-05	1,15E-03	3,57E-03	6,80E-05	8,47E-08	ND	ND	ND	ND	ND	ND	ND	2,75E-06	2,15E-05	0,00E+00	2,35E-05	-1,81E-06

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	4,78E-01	0,00E+00	0,00E+00	4,78E-01	0,00E+00	8,60E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	9,17E-03	0,00E+00	0,00E+00	9,17E-03	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	MJ	6,03E-04	0,00E+00	0,00E+00	6,03E-04	0,00E+00	4,29E-01	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	1,81E-01	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	2,48E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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	1,01E+02	5,21E+00	3,48E+01	1,41E+02	2,20E+01	9,21E-03	ND	ND	ND	ND	ND	ND	ND	1,93E+00	4,84E+00	0,00E+00	6,25E+00	-2,23E-02

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 characterisation factor for biogenic CO2 is set to zero.

SCENARIO DOCUMENTATION

DATA SOURCES

Manufacturing energy scenario documentation

1. District Heat, Iceland, Iceland, One Click LCA
2. Electricity, Iceland, residual mix, 2023, Iceland, One Click LCA, 0.82 kgCO2e/kWh

Transport scenario documentation - A4 (Transport resources)

1. Market for transport, freight, lorry >32 metric ton, EURO5, 204.0 km

Transport scenario documentation A4

Scenario parameter	Value
Capacity utilization (including empty return) %	50
Bulk density of transported products	0,00E+00
Volume capacity utilization factor	<1

Installation scenario documentation - A5 (Installation waste)

1. Treatment of waste wood, untreated, sanitary landfill, Ecoinvent, 0.103 kg
2. Treatment of waste wood, post-consumer, sorting and shredding, Ecoinvent, Materials for recycling, 0.086 kg
3. Exported Energy: Electricity, Ecoinvent, 0.181 MJ
4. Treatment of waste wood, untreated, municipal incineration, Ecoinvent, 0.081 kg
5. Exported Energy: Thermal, Ecoinvent, 0.248 MJ

End of life scenario documentation - C1-C4 (Data source)

1. Treatment of waste concrete, inert material landfill, Ecoinvent, 992.82 kg
2. Treatment of scrap steel, inert material landfill, Ecoinvent, 7.18 kg
3. Diesel, burned in building machine, Ecoinvent, 5.36 kWh

Scenario information	Value
Scenario assumptions e.g. transportation	25 km to the nearest waste treatment facility. EURO 6 truck

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 is filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub cannot 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.

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: Magaly Gonzalez Vazquez
Tool verification validity: 27 March 2025 - 26 March 2028

Sarah Curpen, as authorized verifier acting for EPD HUB Limited
20.01.2026