

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

9,2 mm Hardened Wood Floorings with Woodura® technology
Välinge Innovation Croatia d.o.o.



EPD HUB, HUB-1541

Publishing date 6 June 2024, last updated on 6 June 2024, valid until 6 June 2029.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Välinge Innovation Croatia d.o.o.
Address	Otok Oštarski 4K, Ogulin HR-47300, CROATIA
Contact details	contact@valinge.se
Website	valinge.com

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.1, 5 Dec 2023
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	Marina Härd, Välinge Innovation Sweden AB
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification
EPD verifier	Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited

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	9,2 mm Hardened Wood Floorings with Woodura® technology
Additional labels	-
Product reference	-
Place of production	Ogulin, Croatia
Period for data	calendar year 2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	- %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 m ²
Declared unit mass	9.055 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	1,18E+01
GWP-total, A1-A3 (kgCO ₂ e)	1,61E+00
Secondary material, inputs (%)	0.65
Secondary material, outputs (%)	0
Total energy use, A1-A3 (kWh)	78.9
Net fresh water use, A1-A3 (m ³)	0.34

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Välinge Innovation Croatia d.o.o. is a producing unit owned 100% by Välinge Innovation Sweden AB.

Välinge Innovation Sweden AB is an IP, R&D and production company in flooring and furniture industries. Founded in 1993, we pioneered the concept of glue-less click flooring and changed the way people install and use floorings. Our worldwide-patented technology introduced a fast and easy way of installing floorboards mechanically, without using glue.

Today, our technology and product portfolio covers all fields related to floating flooring but also to other applications such as furniture and surfaces. Our patent portfolio is one of the most comprehensive in the flooring industry. It comprises more than 3,100 granted patents and a global license base of over 250 licensees. All R&D activities take place at our facility in Viken, which is considered to be the worlds most advanced R&D centre related to laminate, resilient flooring, wood and wood-powder based flooring technology.

Each day, we make sure our licensees get access to the latest flooring, furniture, and surface technologies used in peoples everyday lives.

PRODUCT DESCRIPTION

Hardened wood flooring featuring Woodura surface technology is a high-tech product that can be used in areas subject to intense wear, for example kitchens, hallways and other commercial areas. Moreover, the floors are so tough that there is no need for sanding.

The Woodura surface is fused on to a high-end HDF board with low swelling. The wood is subsequently brushed and oiled to maintain the natural touch and appearance of wood. Further effects can be added through staining.

Product composition

- 1 - Surface treatment such as brushed lacquer, pro matt lacquer and hard wax oil
- 2 - Compressed and hardened surface layer of wood
- 3 - Compressed and hardened wood-based powder layer
- 4 - Moisture resistant Välinge Compositek core
- 5 - Compressed and hardened wood-based powder layer
- 6 - Compressed and hardened balancing layer of wood

Further information can be found at valinge.com.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	0	-
Minerals	<1	Turkey
Fossil materials	6	Germany, Romania
Bio-based materials	93	Croatia, Poland

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	1.875
Biogenic carbon content in packaging, kg C	0.102

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 m ²
Mass per declared unit	9.055 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	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demol.	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. 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.

Since the factory in Ogulin was partly put into operation at xxxx-xx-xx and still is undergoing expansion. Therefore no data for the entire production process is available.

The energy consumption for this site is estimated based on a similar production line in Viken, Sweden from calendar year 2022.

The production of Hardened Wood floor with Woodura® surface technology is made in several steps:

First step is pressing veneer, powder mix and HDF together at high temperature and pressure. The pressed boards are left to cool off in ambient room temperature for 2-6 days and then they are sawn to planks with a floor locking system. The last step before packing is surface treatment.

Through those steps there are some ocular quality controls where products that do not pass the specifications are sorted out and recycled as wood fiber which will be used in the powder mix or burnt and used to heat the facilities and production processes.

Airborne powder waste and powder waste from the production are collected and sent to hazardous waste treatment.

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 building site is assumed as 1400 km and the transportation method is assumed to be lorry. Vehicle capacity utilization volume factor and empty returns are considered in the ecoinvent background data. Transportation does not cause losses as product is packaged properly. Transportation impacts that occur from delivery of the product cover direct exhaust emissions of fuel, environmental impacts of fuel production, as well as related infrastructure emissions.

Environmental impacts from installation into the building include an assumed installation loss of 5%, waste packaging materials (A5), and release of biogenic carbon dioxide from waste processing of packaging. Electricity consumption for installation is assumed to be negligible.

Transportation distance to the closest waste management facility assumed to be an average of 50 km.

PRODUCT USE AND MAINTENANCE (B1-B7)

The use stage has not been declared.

Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

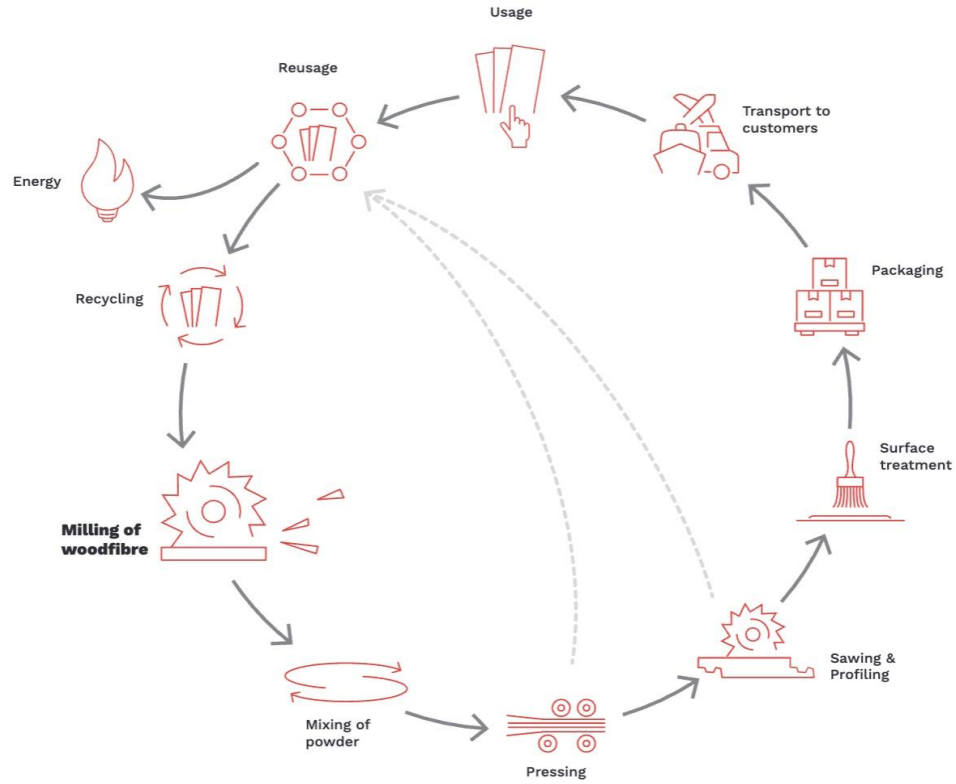
Energy consumption is considered negligible for the process of panel deconstruction from the building. It is assumed that the waste is collected separately and transported to the waste treatment center.

Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2).

Our floors can easily be lifted and placed in another room – or even sold. Our floors can also be chipped down and reused as core materials for the production of new floors. However, a conservative assumption as per EN 17213 - c-PCR for windows and doors (wood), a scenario of 100% incineration with >60% energy recovery efficiency is assumed (C3).

Due to the energy recovery potential of materials in the product and in packaging, the energy recovered from incineration replaces electricity and heat from primary sources. Benefits from incineration are included in Module D.

MANUFACTURING PROCESS



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.

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 materials	Allocated by mass or volume
Ancillary materials	Not applicable
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging 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, BJELIN Hardened Wood with Woodura® technology produced in one production plant with a thickness of 9,2 mm.

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 v3.8, Plastics Europe, Federal LCA Commons and One Click LCA databases as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

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 ₂ e	-1,73E+00	8,85E-01	2,45E+00	1,61E+00	2,22E+00	1,09E+00	MND	MND	MND	MND	MND	MND	MND	MNR	4,25E-02	9,93E+00	0,00E+00	-6,92E+00
GWP – fossil	kg CO ₂ e	8,74E+00	8,85E-01	2,14E+00	1,18E+01	2,22E+00	7,15E-01	MND	MND	MND	MND	MND	MND	MND	MNR	4,25E-02	1,39E-01	0,00E+00	-6,89E+00
GWP – biogenic	kg CO ₂ e	-1,05E+01	3,93E-06	3,12E-01	-1,02E+01	0,00E+00	3,72E-01	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	9,79E+00	0,00E+00	-2,61E-02
GWP – LULUC	kg CO ₂ e	9,49E-03	3,21E-04	8,24E-04	1,06E-02	9,29E-04	5,85E-04	MND	MND	MND	MND	MND	MND	MND	MNR	1,57E-05	4,53E-05	0,00E+00	-2,69E-03
Ozone depletion pot.	kg CFC ₁₁ e	8,55E-07	2,11E-07	8,79E-08	1,15E-06	4,78E-07	8,27E-08	MND	MND	MND	MND	MND	MND	MND	MNR	9,77E-09	9,63E-09	0,00E+00	-8,74E-07
Acidification potential	mol H ⁺ e	5,79E-02	3,59E-03	2,72E-02	8,87E-02	6,52E-03	4,89E-03	MND	MND	MND	MND	MND	MND	MND	MNR	1,80E-04	1,48E-03	0,00E+00	-1,42E-02
EP-freshwater ²⁾	kg Pe	3,78E-04	6,09E-06	3,09E-04	6,93E-04	1,88E-05	3,58E-05	MND	MND	MND	MND	MND	MND	MND	MNR	3,48E-07	1,88E-06	0,00E+00	-2,16E-04
EP-marine	kg Ne	1,33E-02	1,07E-03	1,83E-03	1,62E-02	1,30E-03	9,32E-04	MND	MND	MND	MND	MND	MND	MND	MNR	5,35E-05	7,03E-04	0,00E+00	-2,60E-03
EP-terrestrial	mol Ne	1,59E-01	1,17E-02	2,01E-02	1,91E-01	1,45E-02	1,09E-02	MND	MND	MND	MND	MND	MND	MND	MNR	5,90E-04	7,48E-03	0,00E+00	-2,89E-02
POCP (“smog”) ³⁾	kg NMVOCe	4,22E-02	3,81E-03	6,60E-03	5,26E-02	5,43E-03	3,05E-03	MND	MND	MND	MND	MND	MND	MND	MNR	1,89E-04	1,84E-03	0,00E+00	-9,05E-03
ADP-minerals & metals ⁴⁾	kg Sbe	9,70E-05	2,17E-06	4,81E-06	1,04E-04	7,85E-06	5,65E-06	MND	MND	MND	MND	MND	MND	MND	MNR	9,96E-08	3,80E-07	0,00E+00	-5,76E-06
ADP-fossil resources	MJ	1,50E+02	1,35E+01	2,68E+01	1,90E+02	3,21E+01	1,13E+01	MND	MND	MND	MND	MND	MND	MND	MNR	6,38E-01	1,19E+00	0,00E+00	-1,22E+02
Water use ⁵⁾	m ³ e depr.	1,15E+01	6,24E-02	2,12E+00	1,36E+01	1,42E-01	7,35E-01	MND	MND	MND	MND	MND	MND	MND	MNR	2,86E-03	6,05E-01	0,00E+00	-9,30E-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, PEF

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	8,51E-07	1,01E-07	5,21E-08	1,00E-06	1,76E-07	6,06E-08	MND	MND	MND	MND	MND	MND	MND	MNR	4,90E-09	1,59E-08	0,00E+00	-4,47E-08
Ionizing radiation ⁶⁾	kBq U235e	6,59E-01	6,97E-02	2,64E-01	9,93E-01	1,50E-01	5,76E-02	MND	MND	MND	MND	MND	MND	MND	MNR	3,04E-03	2,58E-03	0,00E+00	-8,66E-01
Ecotoxicity (freshwater)	CTUe	2,44E+02	1,12E+01	2,02E+01	2,76E+02	2,95E+01	1,55E+01	MND	MND	MND	MND	MND	MND	MND	MNR	5,74E-01	2,19E+00	0,00E+00	-2,45E+01
Human toxicity, cancer	CTUh	5,87E-08	3,00E-10	1,18E-09	6,02E-08	8,30E-10	3,09E-09	MND	MND	MND	MND	MND	MND	MND	MNR	1,41E-11	3,93E-10	0,00E+00	-1,00E-09
Human tox. non-cancer	CTUh	1,29E-07	1,18E-08	2,73E-08	1,68E-07	2,67E-08	1,12E-08	MND	MND	MND	MND	MND	MND	MND	MNR	5,68E-10	1,90E-08	0,00E+00	-2,58E-08
SQP ⁷⁾	-	5,01E+02	1,52E+01	3,28E+01	5,49E+02	2,25E+01	2,87E+01	MND	MND	MND	MND	MND	MND	MND	MNR	7,35E-01	3,82E-01	0,00E+00	-6,04E+00

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	8,48E+01	1,77E-01	1,09E+01	9,58E+01	3,82E-01	4,81E+00	MND	MND	MND	MND	MND	MND	MND	MNR	7,19E-03	2,89E-02	0,00E+00	-5,31E+00
Renew. PER as material	MJ	9,30E+01	0,00E+00	-2,66E+00	9,04E+01	0,00E+00	-3,26E+00	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	-8,71E+01	0,00E+00	2,28E-01
Total use of renew. PER	MJ	1,78E+02	1,77E-01	8,20E+00	1,86E+02	3,82E-01	1,55E+00	MND	MND	MND	MND	MND	MND	MND	MNR	7,19E-03	-8,71E+01	0,00E+00	-5,08E+00
Non-re. PER as energy	MJ	1,31E+02	1,35E+01	2,56E+01	1,70E+02	3,21E+01	1,02E+01	MND	MND	MND	MND	MND	MND	MND	MNR	6,38E-01	1,19E+00	0,00E+00	-1,21E+02
Non-re. PER as material	MJ	1,90E+01	0,00E+00	-1,71E-01	1,89E+01	0,00E+00	-1,21E+00	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	-1,76E+01	0,00E+00	1,06E+00
Total use of non-re. PER	MJ	1,50E+02	1,35E+01	2,54E+01	1,89E+02	3,21E+01	9,03E+00	MND	MND	MND	MND	MND	MND	MND	MNR	6,38E-01	-1,64E+01	0,00E+00	-1,20E+02
Secondary materials	kg	5,88E-02	3,87E-03	3,09E-02	9,36E-02	1,07E-02	5,52E-03	MND	MND	MND	MND	MND	MND	MND	MNR	1,77E-04	2,84E-03	0,00E+00	2,12E-02
Renew. secondary fuels	MJ	9,45E+00	3,50E-05	8,65E+00	1,81E+01	1,39E-04	9,05E-01	MND	MND	MND	MND	MND	MND	MND	MNR	1,79E-06	6,69E-06	0,00E+00	-5,97E-04
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	2,84E-01	1,79E-03	4,96E-02	3,35E-01	3,83E-03	1,68E-02	MND	MND	MND	MND	MND	MND	MND	MNR	8,27E-05	-1,91E-03	0,00E+00	-3,07E-02

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	5,92E-01	1,46E-02	1,66E-01	7,72E-01	4,65E-02	4,13E-02	MND	MND	MND	MND	MND	MND	MND	MNR	8,46E-04	0,00E+00	0,00E+00	-1,41E-01
Non-hazardous waste	kg	1,36E+01	2,54E-01	1,41E+01	2,79E+01	7,42E-01	2,11E+00	MND	MND	MND	MND	MND	MND	MND	MNR	1,39E-02	9,05E+00	0,00E+00	-9,86E+00
Radioactive waste	kg	2,86E-04	9,31E-05	6,98E-05	4,49E-04	2,14E-04	3,33E-05	MND	MND	MND	MND	MND	MND	MND	MNR	4,27E-06	0,00E+00	0,00E+00	-2,80E-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	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,28E-02	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MNR	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	8,35E+00	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

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 ₂ e	8,49E+00	8,77E-01	2,12E+00	1,15E+01	2,19E+00	7,00E-01	MND	MND	MND	MND	MND	MND	MND	MNR	4,21E-02	1,32E-01	0,00E+00	-6,77E+00
Ozone depletion Pot.	kg CFC ₁₁ e	7,32E-07	1,67E-07	7,71E-08	9,76E-07	3,79E-07	6,87E-08	MND	MND	MND	MND	MND	MND	MND	MNR	7,74E-09	8,32E-09	0,00E+00	-7,67E-07
Acidification	kg SO ₂ e	4,46E-02	2,79E-03	2,40E-02	7,14E-02	5,35E-03	3,92E-03	MND	MND	MND	MND	MND	MND	MND	MNR	1,40E-04	1,04E-03	0,00E+00	-1,17E-02
Eutrophication	kg PO ₄ ³ e	2,51E-02	6,23E-04	1,04E-02	3,61E-02	1,18E-03	1,97E-03	MND	MND	MND	MND	MND	MND	MND	MNR	3,18E-05	1,20E-03	0,00E+00	-7,97E-03
POCP (“smog”)	kg C ₂ H ₄ e	3,72E-03	1,12E-04	9,86E-04	4,82E-03	2,66E-04	2,58E-04	MND	MND	MND	MND	MND	MND	MND	MNR	5,46E-06	3,42E-05	0,00E+00	-6,77E-04
ADP-elements	kg Sbe	9,61E-05	2,11E-06	4,51E-06	1,03E-04	7,67E-06	5,58E-06	MND	MND	MND	MND	MND	MND	MND	MNR	9,65E-08	3,35E-07	0,00E+00	-5,71E-06
ADP-fossil	MJ	1,50E+02	1,35E+01	2,68E+01	1,90E+02	3,21E+01	1,13E+01	MND	MND	MND	MND	MND	MND	MND	MNR	6,38E-01	1,19E+00	0,00E+00	-1,22E+02

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliance with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? [Read more online](#)

This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited

06.06.2024

