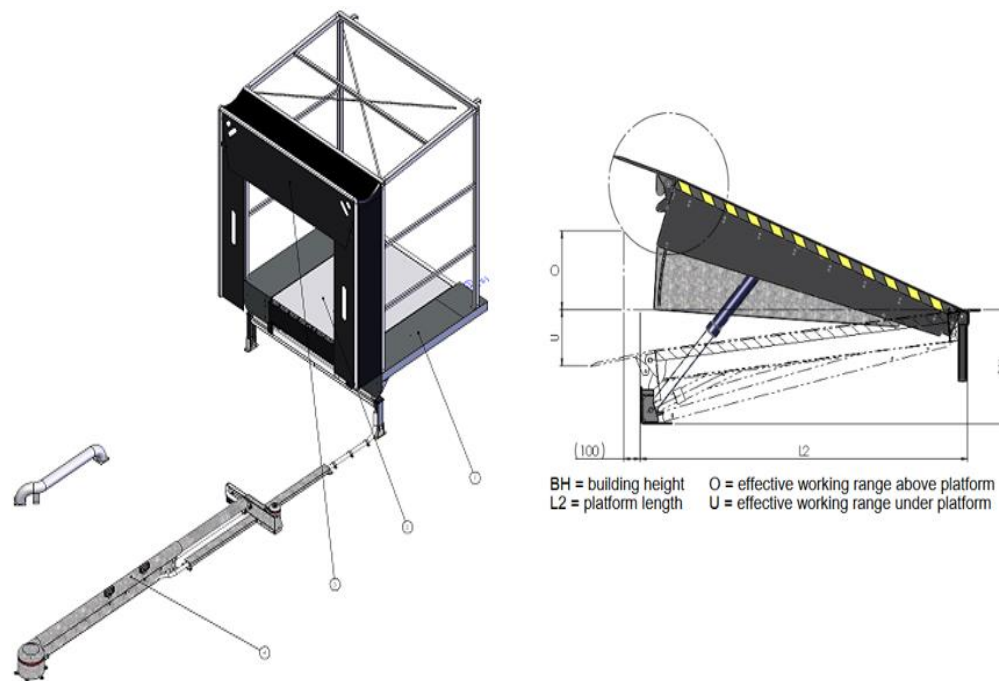# ENVIRONMENTAL PRODUCT DECLARATION

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

LOADING DOCK SYSTEM WITH SWING LIP LEVELLER
Van Wijk Nederland bv

BH = building height   O = effective working range above platform
L2 = platform length   U = effective working range under platform

EPD HUB, HUB-0751
Publishing date 12 October 2023, last updated on 12 October 2023, valid until 12 October 2028

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Van Wijk Nederland bv
Address	Bouwweg 14, 8243PJ Lelystad
Contact details	info@loading-systems.com
Website	www.loading-systems.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 1.0, 1 Feb 2022. IBU PCR for loading dock and loading dock equipment.
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-B7, and modules C1-C4, D
EPD author	Reinhard Mögele
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	Haiha Nguyen, 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	LOADING DOCK SYSTEM WITH SWING LIP LEVELLER
Additional labels	Loading Systems Dock Leveller, Dock Shelter, Dock House and Powerlock
Product reference	Dock Leveller types 232, Dock Shelter types 403M, Dock House type 1000, Powerlock 505NG
Place of production	Lelystad - Netherlands
Period for data	2022
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3	min case -3.34%, max. case +17.83 %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of LOADING DOCK SYSTEM WITH SWING LIP LEVELLER
Declared unit mass	2182.51 kg
GWP-fossil, A1-A3 (kgCO2e)	6,28E+03
GWP-total, A1-A3 (kgCO2e)	5,94E+03
Secondary material, inputs (%)	42.7
Secondary material, outputs (%)	91.9
Total energy use, A1-A3 (kWh)	23400.0
Total water use, A1-A3 (m3e)	7,18E+01

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER
Van Wijk Nederland BV with production in the Netherlands is a leading European manufacturer and supplier of Dock Levellers, Dock Shelters, Dock Houses and Powerlock vehicle restraint systems.

PRODUCT DESCRIPTION
- This EPD is compliant with EN 15804+A2 standard, and
- IBUs PCR and cPCR for Loading dock have been used as reference that applies for:
Inside and outside Loading Dock systems and single components of (inside and outside) Loading Dock systems.
This EPD declares:
I) The whole LOADING DOCK SYSTEM WITH SWING LIP LEVELLER including the following components:
   1) Dock House (exclusive cladding)
   2) Dock Leveller (constructed and produced concerning the harmonized standard EN 1398:2009)
   3) Dock Shelter
   4) Powerlock (vehicle restraint system)

II) and single components listed under I)
In the following text the single components are shown and their purpose within a loading dock is explained:

Component Description of the LOADING DOCK SYSTEM WITH SWING LIP LEVELLER:
Dock House (1) -> Outside house to provide weather protection between the building and the road-truck.

Dock Leveller (2) -> Bridge with Swing lip between the ramp of the building and the truck bed to enable loading and unloading by forklift.

Dock Shelter (3) -> Flexible side and top curtains to seal off the road-trucks during the loading operation.

Powerlock (4) -> Vehicle restraint system to hold the truck in position.

The calculation rules for the Life Cycle Assessment and Requirements on the Background Report are specified in a separate document as Part A of the Product Category Rules.

The purpose of a LOADING DOCK SYSTEM WITH SWING LIP LEVELLER is to best transition the unloading and loading of trucks. The loading dock components consist of steel, aluminium, polyester coating, polyvinylchloride, and various oils. The LOADING DOCK SYSTEM WITH SWING LIP LEVELLER has a service life of 10 to 25 years depending on the usage. The load capacity of the Dock Leveller with Swing lip is standard 60 kN (optional 100 kN). The overall length, width and height of the total structure is 2.5 m, 3.4 m, and 4.8 m.

The mass of all the complete LOADING DOCK SYSTEM WITH SWING LIP LEVELLER in total is 2182.51 kg.
The mass of the single components is as follows:
- Dock Shelter (curtain type) = 77.29 kg
- Dock House = 739.39 kg
- Dock Leveller (Swing lip) = 665.15 kg
- Powerlock = 700.68 kg.
The total product consists of 97.58% metal, 1.77% plastic, and 0.65% chemicals.

Further information can be found at www.loading-systems.com.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	97.58	Netherlands and EU
Minerals	-	-
Fossil materials	2.42	Netherlands and EU
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	3.330218

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of LOADING DOCK SYSTEM WITH SWING LIP LEVELLER
Mass per declared unit	2182.51 kg
Functional unit	1 unit of LOADING DOCK SYSTEM WITH SWING LIP LEVELLER, comprising of an electrically operated Dock Leveller, a Dock Shelter, a Dock House, and a Powerlock vehicle restraint system
Reference service life	15 years

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			Assem-bly stage		Use stage							End of life stage				Beyond the system bounda-ries
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
x	x	x	x	x	x	x	x	x	x	x	x	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.

The LOADING DOCK SYSTEM WITH SWING LIP LEVELLER components are made up of various metals, plastics, and oils.

Following LOADING DOCK SYSTEM WITH SWING LIP LEVELLER parts and their processes are used:
In general, we receive all basic steel (flat plates, durbar plates, tubes,

profiles, etc.) and place it near the machine (especially laser cutting machines and welding robots) it will be used for.
All other components we use are stored in our warehouse and will if needed be distributed to the production.
1) Dock House:
Laser cutting, bending, sawing, welding, steel blasting and powder coating or hot-dip-galvanizing, group and prepare for transport, ship to customer.
2) Dock Leveller swing lip:
Laser cutting, bending, sawing, welding (robot and hand), steel blasting and powder coating (or hot-dip-galvanizing), assembling, testing and ship to customer.
3) Dock Shelter:
Cut curtain, prepare profiles, sealing/ sewing curtain, weld, screw and assemble frames, add options and ship to the customer.
4) Powerlock:
Laser cutting, bending, sawing, welding Powerlock parts, hot dip galvanizing or powder coating, assembling and testing, packing in crate, ship to customer.

Wastewater and electricity usage from the manufacturers are accounted for.

Cardboard and wood are used as packaging material for transporting the various components from the factory gate.

Hot dip galvanizing is a part of the production process but this was not modelled as the impacts and mass were negligible and can be excluded from the model according to the EN 15804 standard.

Production wastes include metal scraps and waste plastics, which are sent to a treatment facility located 50 km away, where metal scraps are incinerated and plastics are landfilled.

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.

The transportation distance is defined according to the PCR. Average distance of transportation from production plant to building site is assumed as 1650 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. Empty returns are not taken into account as it is assumed that return trip is used by the transportation company to serve the needs of other clients. Transportation does not cause losses as product is packaged properly. Environmental impacts from installation into the building include waste packaging materials (A5) and release of biogenic carbon dioxide from wood pallets/cardboard boxes. The wood and cardboard are incinerated and recycled respectively. The impacts of material production, its processing and its disposal as installation waste are also included.

All transported components of the Loading Dock System with Swing Lip (Dock Leveller, Dock Shelter, Dock House, Powerlock) have to be unloaded from the truck and be placed at the right place of the installation opening of the building. This happens by the use of a forklift or similar. Some parts have partly to be assembled on site, others can directly be placed and fixed to the building. The fixation to the building and floor and to the different used components happens by screwing and welding.

The instructions for assembly, operation, maintenance and disassembly must always be observed at the respective stage of construction. These are supplied with the respective products and can also be found on our website. This also applies to the installation. The respective assembly instructions are available for Dock House, Dock Leveller, Dock Shelter and Powerlock.

PRODUCT USE AND MAINTENANCE (B1-B7)

The purpose of a LOADING DOCK SYSTEM WITH SWING LIP LEVELLER is to best transition the unloading and loading of trucks. The vehicle that has to be loaded or unloaded drives backwards into the Dock Shelter and docks against the front of the Dock House. Then the Dock Leveller will be activated to move up, turn out the hinged lip and descend to the truck floor. The Dock Leveller bridges the distance between truck floor and the floor inside the building. Goods can be transported over the Dock Leveller by the use of forklifts of similar pallet trucks. The Dock Shelter minimizes the energy loose during loading or unloading.

After the loading or unloading has been finished the Dock Leveller will be put into rest position and the vehicle can leave the dock.

Operational energy use B6: Estimated energy use:

Power consumption Dock Leveller or Powerlock in use 1,1 kW (6 min/cycle) and idle about 50W (54 min/cycle).

Dock Leveller: 1.1 kW: place the Dock Leveller on the truck, use it for a cycle and retract it = 0.16 kWh a cycle.

Powerlock 1.1 kW: place the Powerlock against the wheels, use it and retract it = 0.16 a cycle.

Total calculated with 0.3285 kW/cycle.
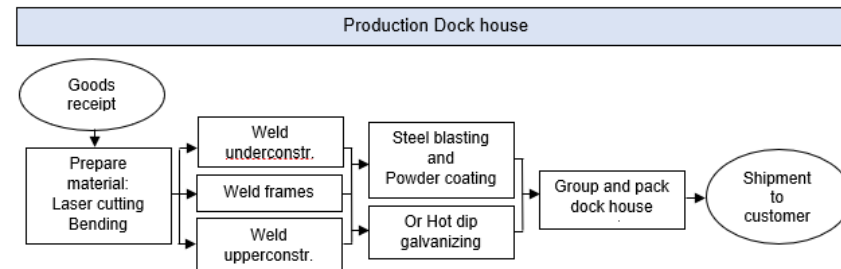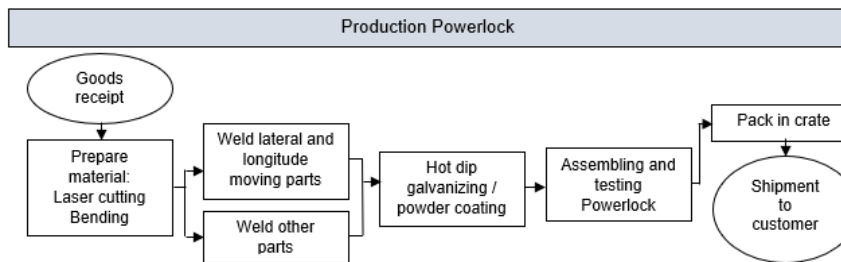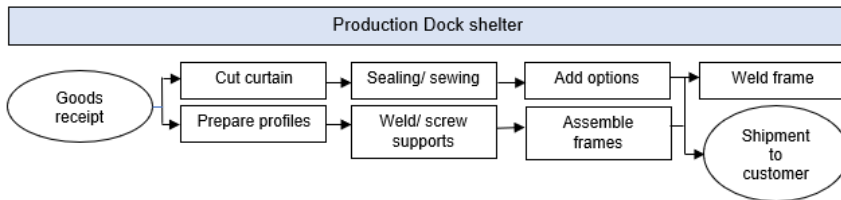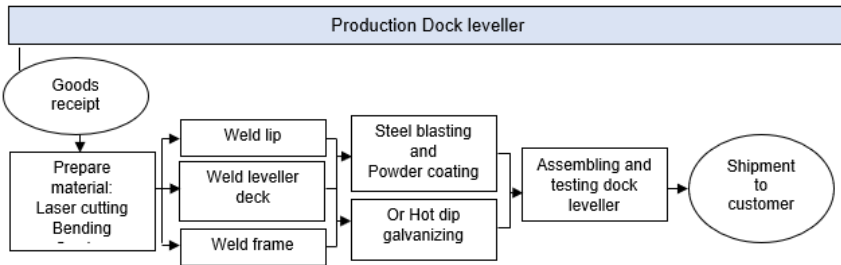
(cycles per year of operation * years of operation * energy consumed) = (2740 cycles/year of operation* 15 years of operation* 0.3285 kwh/cycle) = 13501 kWh for total life cycle of Dock Leveller and Powerlock usage, in idle and in use.

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

PRODUCT END OF LIFE (C1-c4, D)

Consumption of energy and natural resources in demolition process is assumed to be based on generic building demolition data (C1). 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). Raw materials are then separated for their end-of-life scenario. Steel is assumed to be 95% recycled and 5% sent to landfill, while aluminium is assumed to be 85% recycled. Plastics were assumed to be 70% recycled and 30% landfilled. Electronics are shredded and then processed. The construction of the waste processing facility and the appropriate equipment are not apart of this model (C3, C4). Due to the material and energy recovery potential of the materials, a part of the end-of-life product is converted into recycled raw materials while electric and heat energy are generated from incineration. Due to the material and energy recovery potential of parts in the end-of-life product and packaging, recycled raw materials lead to avoided virgin material production, while the energy recovered from incineration displaces electricity and heat production. The benefits and loads of incineration and recycling are included in Module D for packaging materials as well (D).

MANUFACTURING PROCESS

Production Dock leveller

Goods receipt → Prepare material: Laser cutting Bending → Weld lip / Weld leveller deck / Weld frame → Steel blasting and Powder coating / Or Hot dip galvanizing → Assembling and testing dock leveller → Shipment to customer

Production Dock shelter

Goods receipt → Cut curtain / Prepare profiles → Sealing/ sewing / Weld/ screw supports → Add options / Assemble frames → Weld frame / Shipment to customer

Production Powerlock

Goods receipt → Prepare material: Laser cutting Bending → Weld lateral and longitude moving parts / Weld other parts → Hot dip galvanizing / powder coating → Assembling and testing Powerlock → Pack in crate / Shipment to customer

Production Dock house

Goods receipt → Prepare material: Laser cutting Bending → Weld underconstr. / Weld frames / Weld upperconstr. → Steel blasting and Powder coating / Or Hot dip galvanizing → Group and pack dock house → Shipment to customer

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	No allocation
Ancillary materials	No allocation
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	Multiple products
Averaging method	Averaged by shares of total mass
Variation in GWP-fossil for A1-A3	min case -3.34%, max. case +17.83 %

This EPD refers to different product variations of the product produced in one production plant.

The reference case for this study was the 232010 - Swing lip product. The variability from the minimum and maximum cases were determined. The variations for GWP fossil A1-A3 were -3.34% and +17.83%.

Separate studies of the components have been done to determine their variability from the average:

- Dock Leveller: The variations for GWP fossil A1-A3 were -10.36% and +49.96%.
- Dock House: The variations for GWP fossil A1-A3 were -3.33% and +6.67%.
- Dock Shelter: The variations for GWP fossil A1-A3 were not considered as the component is constant for the different sizes.
- Powerlock: The variations for GWP fossil A1-A3 were not considered as the component is constant for the different sizes.

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. Ecoinvent and One Click LCA databases were used 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_2e	5,28E+03	3,22E+02	3,35E+02	5,94E+03	2,68E+03	3,76E+02	MND	MND	MND	MND	MND	9,54E+03	MND	9,39E-01	6,97E+01	6,62E+01	1,36E+00	-1,82E+03
GWP – fossil	kg CO_2e	5,28E+03	3,22E+02	6,82E+02	6,28E+03	2,68E+03	2,80E+01	MND	MND	MND	MND	MND	9,52E+03	MND	9,38E-01	6,96E+01	6,62E+01	1,38E+00	-2,16E+03
GWP – biogenic	kg CO_2e	2,67E-01	0,00E+00	-3,47E+02	-3,47E+02	1,57E+00	3,48E+02	MND	MND	MND	MND	MND	0,00E+00	MND	0,00E+00	-6,78E-21	-7,82E-02	-2,53E-02	3,39E+02
GWP – LULUC	kg CO_2e	4,71E+00	1,76E-01	4,55E-01	5,34E+00	1,46E+00	1,33E-02	MND	MND	MND	MND	MND	1,74E+01	MND	9,69E-04	3,89E-02	6,06E-02	8,24E-04	-1,39E+00
Ozone depletion pot.	kg CFC-11e	3,14E-04	6,59E-05	5,44E-05	4,34E-04	5,49E-04	5,12E-06	MND	MND	MND	MND	MND	3,15E-04	MND	1,37E-07	1,42E-05	5,58E-06	2,86E-07	-7,67E-05
Acidification potential	mol H+e	2,34E+01	1,98E+00	1,40E+00	2,68E+01	1,66E+01	2,93E-01	MND	MND	MND	MND	MND	4,70E+01	MND	9,87E-03	4,37E-01	5,72E-01	7,39E-03	-1,11E+01
EP-freshwater[2]	kg Pe	2,72E-01	3,39E-03	2,36E-02	2,99E-01	2,83E-02	3,59E-04	MND	MND	MND	MND	MND	4,99E-01	MND	4,33E-05	7,43E-04	2,51E-03	1,24E-05	-3,39E-02
EP-marine	kg Ne	4,53E+00	7,13E-01	3,43E-01	5,59E+00	5,96E+00	1,20E-01	MND	MND	MND	MND	MND	8,09E+00	MND	3,69E-03	1,58E-01	1,22E-01	2,61E-03	-8,25E-01
EP-terrestrial	mol Ne	5,27E+01	7,84E+00	3,82E+00	6,44E+01	6,55E+01	1,32E+00	MND	MND	MND	MND	MND	9,01E+01	MND	4,06E-02	1,74E+00	1,41E+00	2,70E-02	-2,29E+01
POCP ("smog")[3]	kg NMVOCe	2,34E+01	2,16E+00	1,23E+00	2,68E+01	1,80E+01	3,49E-01	MND	MND	MND	MND	MND	2,43E+01	MND	1,07E-02	4,76E-01	3,87E-01	8,00E-03	-1,08E+01
ADP-minerals & metals[4]	kg Sbe	7,24E-02	2,15E-03	1,18E-03	7,58E-02	1,98E-02	7,87E-05	MND	MND	MND	MND	MND	1,24E-02	MND	4,07E-06	4,83E-04	6,00E-03	2,09E-06	-4,66E-02
ADP-fossil resources	MJ	6,16E+04	4,55E+03	9,98E+03	7,62E+04	3,80E+04	3,77E+02	MND	MND	MND	MND	MND	1,24E+05	MND	1,56E+01	9,82E+02	6,14E+02	2,06E+01	-1,88E+04
Water use[5]	m³e depr.	2,84E+03	2,49E+01	1,16E+02	2,98E+03	2,07E+02	2,33E+00	MND	MND	MND	MND	MND	2,44E+03	MND	2,35E-01	5,44E+00	1,23E+01	9,24E-02	3,97E+02

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.

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	6,49E+03	7,17E+01	2,58E+03	9,14E+03	6,02E+02	1,00E+01	MND	MND	MND	MND	MND	1,42E+04	MND	1,71E+00	1,57E+01	1,08E+02	3,11E-01	-2,25E+03
Renew. PER as material	MJ	0,00E+00	0,00E+00	3,05E+03	3,05E+03	0,00E+00	-3,05E+03	MND	MND	MND	MND	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,19E+01
Total use of renew. PER	MJ	6,49E+03	7,17E+01	5,63E+03	1,22E+04	6,02E+02	-3,04E+03	MND	MND	MND	MND	MND	1,42E+04	MND	1,71E+00	1,57E+01	1,08E+02	3,11E-01	-2,22E+03
Non-re. PER as energy	MJ	6,05E+04	4,55E+03	9,79E+03	7,48E+04	3,80E+04	3,77E+02	MND	MND	MND	MND	MND	1,24E+05	MND	1,56E+01	9,82E+02	6,14E+02	2,06E+01	-1,84E+04
Non-re. PER as material	MJ	1,43E+03	0,00E+00	1,93E+02	1,62E+03	0,00E+00	-1,99E+02	MND	MND	MND	MND	MND	0,00E+00	MND	0,00E+00	0,00E+00	-9,22E+02	-5,03E+02	4,97E+02
Total use of non-re. PER	MJ	6,19E+04	4,55E+03	9,98E+03	7,65E+04	3,80E+04	1,77E+02	MND	MND	MND	MND	MND	1,24E+05	MND	1,56E+01	9,82E+02	-3,08E+02	-4,83E+02	-1,79E+04
Secondary materials	kg	9,31E+02	2,07E+00	1,46E+01	9,48E+02	1,68E+01	1,21E-01	MND	MND	MND	MND	MND	9,32E+00	MND	1,27E-03	4,57E-01	7,36E-01	4,92E-03	1,01E+03

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. secondary fuels	MJ	1,14E+00	2,74E-02	1,02E+02	1,03E+02	2,25E-01	9,22E-04	MND	MND	MND	MND	MND	5,54E-02	MND	1,31E-05	6,11E-03	3,54E-02	1,61E-04	-8,13E-01
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	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m³	6,74E+01	6,45E-01	3,74E+00	7,18E+01	5,53E+00	6,02E-02	MND	MND	MND	MND	MND	6,90E+01	MND	7,42E-03	1,40E-01	3,66E-01	2,19E-02	-4,38E+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+03	8,42E+00	3,06E+01	2,16E+03	6,97E+01	7,68E-01	MND	MND	MND	MND	MND	7,97E+02	MND	3,30E-02	1,85E+00	1,13E+01	0,00E+00	-9,36E+02
Non-hazardous waste	kg	1,07E+04	1,35E+02	9,95E+02	1,18E+04	1,29E+03	1,51E+01	MND	MND	MND	MND	MND	2,13E+04	MND	1,97E+00	2,95E+01	1,32E+02	1,24E+02	-4,23E+03
Radioactive waste	kg	1,77E-01	2,93E-02	1,44E-02	2,21E-01	2,45E-01	2,41E-03	MND	MND	MND	MND	MND	3,85E-01	MND	1,13E-04	6,31E-03	3,56E-03	0,00E+00	-4,13E-03

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	0,00E+00	MND	0,00E+00	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	2,50E+00	MND	MND	MND	MND	MND	0,00E+00	MND	0,00E+00	0,00E+00	2,05E+03	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	0,00E+00	MND	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	MND	MND	MND	MND	MND	0,00E+00	MND	0,00E+00	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_2e	5,07E+03	3,18E+02	6,69E+02	6,06E+03	2,65E+03	2,76E+01	MND	MND	MND	MND	MND	9,31E+03	MND	9,24E-01	6,89E+01	6,56E+01	1,26E+00	-2,03E+03
Ozone depletion Pot.	kg CFC_{-11}e	3,03E-04	5,23E-05	4,51E-05	4,01E-04	4,36E-04	4,06E-06	MND	MND	MND	MND	MND	2,63E-04	MND	1,10E-07	1,13E-05	4,52E-06	2,26E-07	-9,15E-05
Acidification	kg SO_2e	1,90E+01	1,48E+00	1,11E+00	2,16E+01	1,22E+01	2,13E-01	MND	MND	MND	MND	MND	3,92E+01	MND	7,34E-03	3,27E-01	4,61E-01	5,62E-03	-9,16E+00
Eutrophication	kg PO_4^3e	1,18E+01	3,76E-01	8,47E-01	1,30E+01	3,10E+00	5,34E-02	MND	MND	MND	MND	MND	1,73E+01	MND	2,70E-03	8,31E-02	1,79E-01	2,46E-02	-3,44E+00
POCP ("smog")	kg C_2H_4e	2,29E+00	4,94E-02	8,75E-02	2,43E+00	4,12E-01	6,75E-03	MND	MND	MND	MND	MND	1,57E+00	MND	2,40E-04	1,08E-02	1,79E-02	3,29E-04	-1,43E+00
ADP-elements	kg Sbe	7,17E-02	2,11E-03	1,16E-03	7,50E-02	1,95E-02	7,76E-05	MND	MND	MND	MND	MND	1,24E-02	MND	4,06E-06	4,74E-04	6,00E-03	2,04E-06	-4,64E+00
ADP-fossil	MJ	6,16E+04	4,55E+03	9,98E+03	7,61E+04	3,80E+04	3,77E+02	MND	MND	MND	MND	MND	1,24E+05	MND	1,56E+01	9,82E+02	6,13E+02	2,06E+01	-1,88E+04

ENVIRONMENTAL IMPACT DATA COMPARISON - COMPLETE AND COMPONENTS

CORE ENVIRONMENTAL IMPACT INDICATORS − EN 15804+A2, PEF

Loading Dock System Van Wijk Nederland bv	Unit	Swing lip ref case - compleet	Swing lip min case - compleet	Swing lip max case - compleet	Swing lip ref case - dock house	Swing lip min case - dock house	Swing lip max case - dock house	Swing lip ref case - dock leveller	Swing lip min case - dock leveller	Swing lip max case - dock leveller	Swing lip ref case - dock shelter	Swing lip ref case - powerlock
Product weight	**kg**	**2182,51**	**2077,6**	**2618.78**	**739,39**	**711,38**	**796,38**	**665,15**	**588,25**	**1044.43**	**77,29**	**700,68**
Impact category	**Unit**	**A1-A3**	**A1-A3**	**A1-A3**	**A1-A3**	**A1-A3**	**A1-A3**	**A1-A3**	**A1-A3**	**A1-A3**	**A1-A3**	**A1-A3**
GWP – total[1]	kg CO_2e	5,94E+03	5,72E+03	7,06E+03	2,10E+03	2,03E+03	2,24E+03	1,93E+03	1,73E+03	2,91E+03	2,14E+02	1,69E+03
GWP – fossil	kg CO_2e	6,28E+03	6,07E+03	7,40E+03	2,10E+03	2,03E+03	2,24E+03	1,93E+03	1,73E+03	2,90E+03	2,17E+02	2,04E+03
GWP – biogenic	kg CO_2e	-3,47E+02	-3,47E+02	-3,47E+02	3,51E-01	3,51E-01	3,51E-01	3,51E-01	3,51E-01	3,51E-01	-3,66E+00	-3,44E+02
GWP – LULUC	kg CO_2e	5,34E+00	5,20E+00	6,02E+00	1,21E+00	1,17E+00	1,30E+00	1,53E+00	1,41E+00	2,13E+00	7,49E-01	1,84E+00
Ozone depletion pot.	kg CFC_{-11}e	4,34E-04	4,21E-04	5,01E-04	1,27E-04	1,23E-04	1,36E-04	1,20E-04	1,08E-04	1,78E-04	3,46E-05	1,53E-04
Acidification potential	mol H^+e	2,68E+01	2,59E+01	3,17E+01	8,65E+00	8,35E+00	9,27E+00	8,30E+00	7,42E+00	1,26E+01	9,80E-01	8,87E+00
EP-freshwater[2]	kg Pe	2,99E-01	2,90E-01	3,50E-01	9,31E-02	8,99E-02	9,97E-02	9,63E-02	8,73E-02	1,41E-01	1,11E-02	9,89E-02
EP-marine	kg Ne	5,59E+00	5,40E+00	6,59E+00	1,76E+00	1,70E+00	1,89E+00	1,68E+00	1,51E+00	2,55E+00	1,86E-01	1,96E+00
EP-terrestrial	mol Ne	6,44E+01	6,22E+01	7,58E+01	2,02E+01	1,94E+01	2,16E+01	1,96E+01	1,76E+01	2,95E+01	2,00E+00	2,26E+01
POCP ("smog")[3]	kg NMVOCe	2,68E+01	2,59E+01	3,18E+01	8,67E+00	8,36E+00	9,32E+00	8,09E+00	7,21E+00	1,24E+01	7,41E-01	9,30E+00
ADP-minerals & metals[4]	kg Sbe	7,58E-02	7,35E-02	8,87E-02	2,21E-02	2,12E-02	2,37E-02	2,54E-02	2,31E-02	3,66E-02	2,10E-03	2,62E-02
ADP-fossil resources	MJ	7,62E+04	7,37E+04	8,91E+04	2,47E+04	2,39E+04	2,63E+04	2,28E+04	2,06E+04	3,41E+04	3,50E+03	2,51E+04
Water use[5]	m³e depr.	2,98E+03	2,86E+03	3,55E+03	9,78E+02	9,42E+02	1,05E+03	9,20E+02	8,19E+02	1,42E+03	1,50E+02	9,37E+02

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.

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 compliancy 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.

HaiHa Nguyen, as an authorized verifier acting for EPD Hub Limited
12.10.2023