ENVIRONMENTAL PRODUCT DECLARATION

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

Dolphin Alavo
Dolphin Solutions Ltd

EPD HUB, HUB-1017
Publishing on 12.01.2024, last updated on 12.01.2024, valid until 12.01.2029.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Dolphin Solutions Ltd
Address	Southpoint, Compass Park, Junction Road, Bodiam, East Sussex. U.K. TN32 5BS
Contact details	info@dolphinsolutions.co.uk
Website	www.dolphinsolutions.co.uk

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
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Joe Johnson, Dolphin Solutions Ltd
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	Elisabet Amat, 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	Dolphin Alavo
Place of production	East Sussex, United Kingdom
Period for data	08/2022-08/2023
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3	-23.5,+12.5%

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of Dolphin Alavo
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO2e)	4,32E+00
GWP-total, A1-A3 (kgCO2e)	3,53E+00
Secondary material, inputs (%)	11.7
Secondary material, outputs (%)	34.5
Total energy use, A1-A3 (kWh)	18.8
Total water use, A1-A3 (m3e)	6,58E-01

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Founded on the core values of care, quality, integrity, and enthusiasm, Dolphin takes pride in having helped to revolutionise commercial washrooms since 1999. With innovative and creative solutions, Dolphin have addressed the needs of clients across the globe.

For nearly 30 years, Dolphin has worked closely with architects, contractors, and developers to create beautiful, high-performance, and sustainable commercial washrooms featuring state-of-the-art technology.

Dolphin remains relentless in its aim to redefine washroom innovation incorporating beauty, timeless design, and functionality with high regard for user experience and focuses on a sustainable cradle-to-cradle commitment.

PRODUCT DESCRIPTION

The Dolphin Alavo mirror system is a fully customisable modular behind-mirror washwall system, complete with infrared sensor taps (cabinet integrated, panel mounted or basin mounted), foam soap systems with concealed cartridges (incorporating a patented system for improved soap flow), paper towel dispensers all in one wash station. A variety of integrated LED lighting options for location of dispensing operations and for decorative purposes are available.

The provision of high speed, low energy hand dryers, which may form part of the Alavo system, has not been included in this EPD. A separate hand dryer EPD is available upon request.

Mixing valve connection data:		
Operating Range	High Pressure	Low Pressure
Maximum static pressure - bar	10	10
Hot & cold flow pressure - bar	1.0 to 5	0.2 to 1
Hot supply temperature - °C	52 to 65	52 to 65
Cold supply temperature - °C	5 to 20	5 to 20

A 220-240v electrical connection is required.

Full installation instructions are provided in the Operating and maintenance manual issued with each delivery.

See Catalogue details at: www.dolphinsolutions.co.uk/about/alavo/

Further information can be found at: www.dolphinsolutions.co.uk.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	24.97	UK / Asia
Minerals	22.55	UK
Fossil materials	3.7	Europe / Asia
Bio-based materials	48.78	UK

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

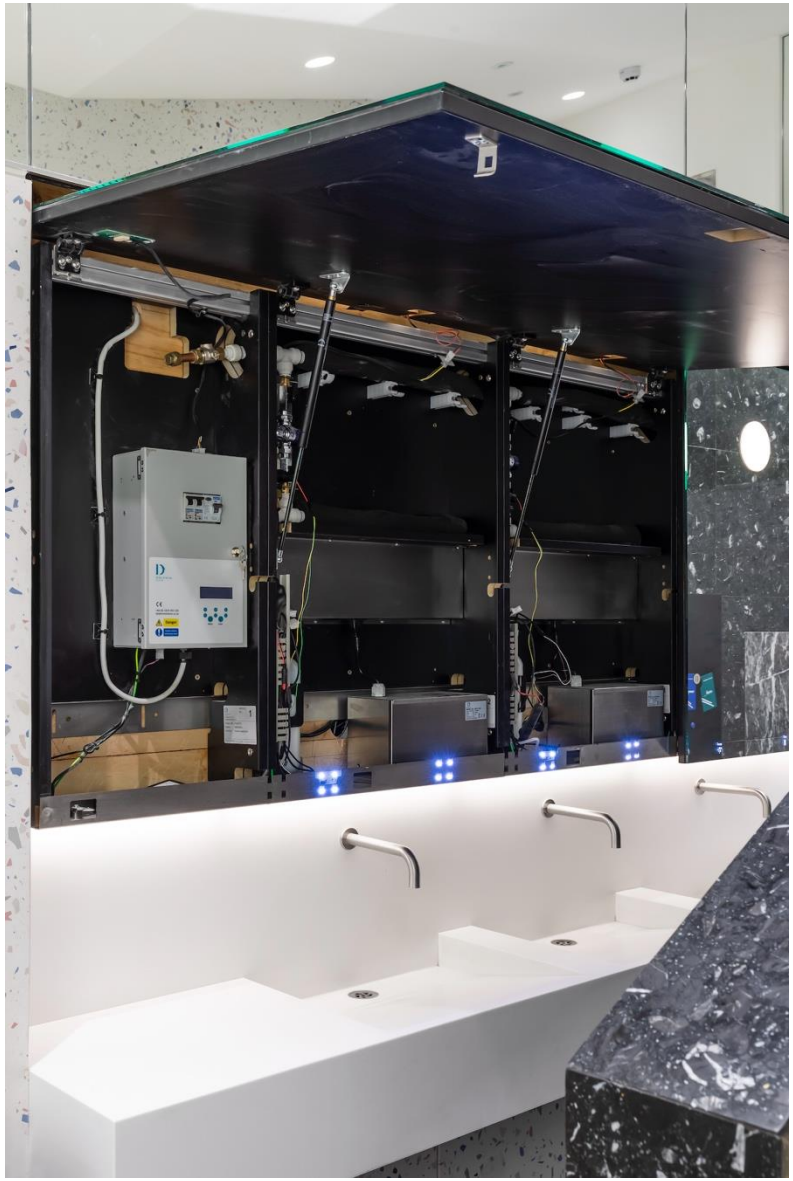
Biogenic carbon content in product, kg C	0.17
Biogenic carbon content in packaging, kg C	0.04

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of Dolphin Alavo
Mass per declared unit	1 kg

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	MND	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	Deconstruction / demolition	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 manufacturing process takes place at the Dolphin Solutions production and distribution facility located at Southpoint, Compass Park, Junction Rd. Bodiam. UK. TN32 5BS

A1 - EXTRACTION AND PROCESSING OF RAW MATERIALS

Dolphin uses prefabricated high grade stainless steel and brass components supplied by manufacturing partners to ensure that the products are built to last.
Prefabricated polymer and electronic components are also sourced from approved suppliers located mostly from within the UK.
Pre-formed MDF panels for Alavo cabinet construction are sourced from a UK based FSC certificated supplier.
The materials that are used to pack all incoming components are wooden pallets and LDPE wrap.

A2 - TRANSPORT TO THE SOUTHPOINT PRODUCTION SITE IN THE UK

The production components are transported to the manufacturing site at Southpoint from the suppliers.
All the domestically and near continent supplied items are transported by road in trucks with very small amounts of intercontinental flight transportation where necessary.

A3 - MANUFACTURING PROCESSES

The manufacturing operation consists of the assembly of bespoke Alavo washwall cabinets utilising handheld manual and battery powered electric tools.

The assembly of the cabinets and fitting of the included specified units comprising 304L or 316L stainless steel dispensers, PE/PP plumbing components, power connections and electronic control and lighting units items generates no waste other than the packaging that the components arrive in.

All items are hand built on assembly benches by a team of technicians utilising handheld battery operated, manual tools and electronic test rigs.

A thorough electrical testing regime is integrated into the assembly process.

Production is based on LEAN techniques, where stocks are minimized and products are put into production as soon as they are ordered.

The disposal of the wood and LDPE packaging of raw materials is achieved by sorting, compacting, baling and palletising the waste which is then stored on site until a full truck quantity is achieved. It is then collected and removed by an approved waste transfer/recycling contractor.

Transportation to the recycling center is covered by a European average EURO 3 16 t diesel lorry.

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.

A4 - TRANSPORTATION FROM DOLPHIN SOUTHPOINT PRODUCTION SITE IN BODIAM TO CUSTOMERS

Distribution to customers installation sites within the UK is achieved using approved pallet carriers from Southpoint using trucks (16-32t) for delivery to the customer. These are primarily Euro 3 diesel vehicles travelling on average 100km.

Transportation to Continental customers is generally by 32t + Euro 3 diesel vehicles travelling an average of 1800km.

A5 - INSTALLATION

Installation is achieved by a team of two site installation operatives and does not require any relevant energy consumption or use of materials, due to manual installation of the prefabricated units by the clients own technicians utilising handheld battery tools.

Apart from the waste of packaging for the final product (plastic wrap and timber) , no additional material flows are generated during installation. Pallets are transported to the nearest recycling site.

The packaging that is either recycled, transported to the landfill or incinerated has the potential benefits reported in module D.
It is determined that waste packaging materials are transported an average 20 km to the waste treatment center by 16t EURO 3 lorry with a diesel engine.

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)

End of life stage (C1-C4). - The EOL stage comprises the deconstruction / demolition, transport, waste management, and disposal processes to manage the product as waste after the service life of the product. The generated waste in modules C1-C4 is included up to the end-of-waste state/final disposal, with the potential net benefits reported in module D.

C1 - DECONSTRUCTION

The Alavo cabinet deconstruction / demolition energy consumption is 0,0 MJ.

C2 - TRANSPORT

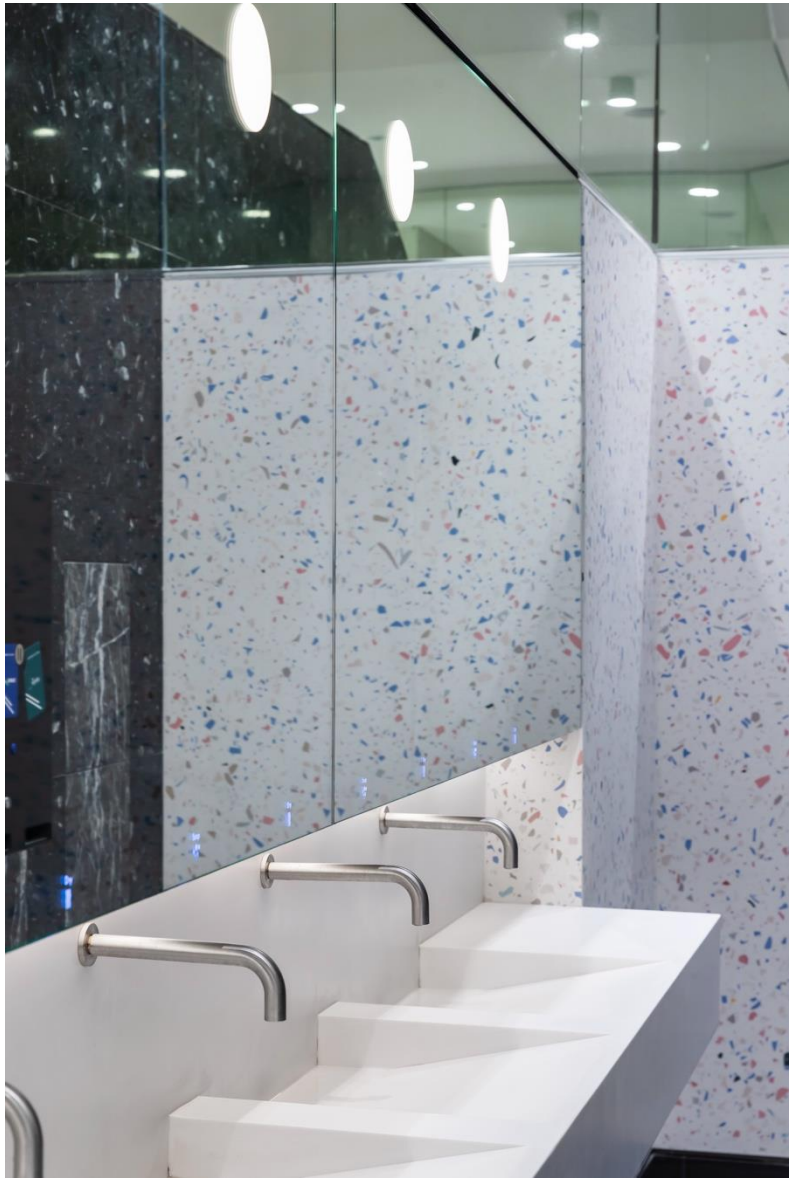
It is determined that EOL materials for disposal/demolition are transported an average 100 km to a recycling centre, 100 km to an incineration station, and 50 km to landfill. Transportation is covered by a European average EURO 3 16-32 mt lorry with a diesel engine. The proportions of each are reported in C3.

C3 & C4 - WASTE DISPOSAL

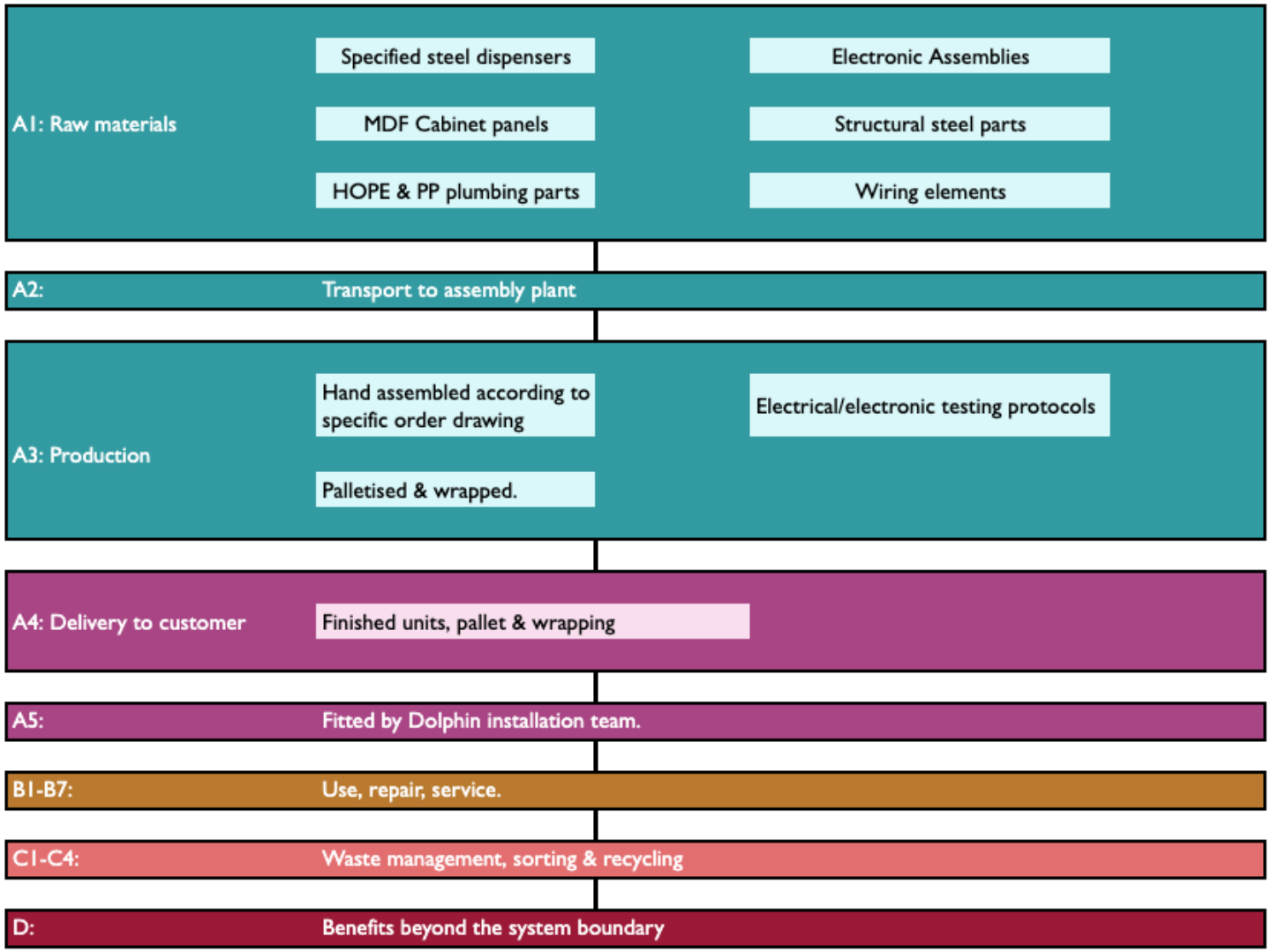
The end-of-life stage represents the waste scenario after the use stage. In C3, electronic components are assumed to be WEEE shredded first. 60% of copper and brass, and 80% of steel and stainless steel is assumed to be recycled, and 50% of plastics and rubber is incinerated with >60% energy efficiency (from EN 50693, Table G.4). The remaining percentages are assumed to be landfilled in C4.

D - BEYOND THE SYSTEM BOUNDARY

Module D includes reuse, recovery, and/or recycling potential, expressed as net impact and benefits, due to reuse, recycling, and incineration of materials with energy recovery in modules A5 and C3. 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 (D). The benefits and loads of incineration and recycling are included in this module.



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	Multiple products
Averaging method	Representative product
Variation in GWP-fossil for A1-A3	-23.5,+12.5%

The range of Alavo washwall units covered by this EPD is broad due to the bespoke nature and design variations of the product. The base unit is represented by a typical 3 user system.

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 v3.8 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	3,61E+00	3,34E-02	-1,14E-01	3,53E+00	1,13E-01	1,63E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,80E-03	3,84E-01	3,33E-01	-1,28E+00
GWP – fossil	kg CO_2e	4,25E+00	3,34E-02	3,63E-02	4,32E+00	1,13E-01	1,28E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,79E-03	5,83E-02	6,57E-03	-1,28E+00
GWP – biogenic	kg CO_2e	-6,52E-01	0,00E+00	-1,50E-01	-8,02E-01	0,00E+00	1,50E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	3,26E-01	3,26E-01	-9,56E-06
GWP – LULUC	kg CO_2e	1,20E-02	1,13E-05	1,42E-04	1,22E-02	1,18E-05	1,09E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,77E-06	1,01E-05	4,53E-06	-6,55E-04
Ozone depletion pot.	kg CFC_{-11}e	3,43E-07	7,67E-09	4,06E-09	3,55E-07	2,59E-08	2,53E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,10E-09	1,00E-09	1,30E-09	-4,67E-08
Acidification potential	mol H^+e	3,75E-02	1,45E-04	2,00E-04	3,79E-02	5,76E-04	2,14E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,03E-05	1,11E-04	3,72E-05	-1,26E-02
EP-freshwater[2)]	kg Pe	5,82E-04	2,52E-07	2,00E-06	5,85E-04	2,78E-07	3,20E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,92E-08	3,73E-07	8,17E-08	-8,17E-05
EP-marine	kg Ne	5,64E-03	4,41E-05	5,21E-05	5,73E-03	2,07E-04	9,57E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,03E-06	3,63E-05	2,06E-05	-1,46E-03
EP-terrestrial	mol Ne	6,76E-02	4,86E-04	5,73E-04	6,86E-02	2,27E-03	1,02E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,66E-05	3,94E-04	1,36E-04	-1,79E-02
POCP ("smog")[3)]	kg NMVOCe	1,77E-02	1,51E-04	2,22E-04	1,81E-02	5,99E-04	2,57E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,13E-05	1,01E-04	4,55E-05	-5,03E-03
ADP-minerals & metals[4)]	kg Sbe	1,09E-03	7,15E-08	2,81E-07	1,09E-03	6,38E-08	6,65E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,12E-08	5,90E-07	1,42E-08	-8,22E-05
ADP-fossil resources	MJ	5,45E+01	4,97E-01	7,77E-01	5,58E+01	1,58E+00	2,91E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,20E-02	1,20E-01	1,00E-01	-1,33E+01
Water use[5)]	m^3e depr.	2,19E+00	2,09E-03	2,95E-02	2,22E+00	3,04E-03	7,37E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,22E-04	2,03E-02	5,93E-04	-2,45E-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.

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	1,09E+01	5,24E-03	9,19E-01	1,19E+01	6,87E-03	1,68E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,11E-04	1,39E-02	1,93E-03	-2,16E+00
Renew. PER as material	MJ	5,72E+00	0,00E+00	1,31E+00	7,03E+00	0,00E+00	-1,31E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-	-	0,00E+00
Total use of renew. PER	MJ	1,67E+01	5,24E-03	2,23E+00	1,89E+01	6,87E-03	-1,31E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,11E-04	-	-	-2,16E+00
Non-re. PER as energy	MJ	5,44E+01	4,97E-01	5,44E-01	5,54E+01	1,58E+00	2,91E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,20E-02	1,20E-01	1,00E-01	-1,33E+01
Non-re. PER as material	MJ	3,50E-01	0,00E+00	2,33E-01	5,83E-01	0,00E+00	-2,33E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-1,75E-01	-1,75E-01	0,00E+00
Total use of non-re. PER	MJ	5,47E+01	4,97E-01	7,77E-01	5,60E+01	1,58E+00	-2,04E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,20E-02	-5,48E-02	-7,45E-02	-1,33E+01
Secondary materials	kg	1,17E-01	1,28E-04	4,93E-03	1,23E-01	1,34E-04	3,69E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,00E-05	1,59E-04	3,35E-05	1,23E-02
Renew. secondary fuels	MJ	3,51E-01	1,30E-06	4,45E-02	3,96E-01	1,51E-06	1,08E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,02E-07	4,63E-06	1,17E-06	-9,00E-05
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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	6,58E-01	6,04E-05	7,01E-04	6,58E-01	8,31E-05	-1,89E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,33E-06	1,36E-04	1,07E-04	-8,37E-03

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	1,33E+00	6,14E-04	2,48E-03	1,33E+00	7,38E-04	2,42E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,55E-05	8,68E-04	1,62E-02	-7,30E-01
Non-hazardous waste	kg	1,15E+01	1,01E-02	5,13E-02	1,16E+01	1,09E-02	1,08E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,57E-03	2,87E-01	3,98E-01	-3,87E+00
Radioactive waste	kg	1,80E-04	3,35E-06	2,39E-06	1,86E-04	1,13E-05	1,11E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,82E-07	4,33E-07	0,00E+00	-3,47E-05

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	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	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	3,45E-01	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	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	1,13E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	2,31E+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	4,17E+00	3,31E-02	3,54E-02	4,24E+00	1,13E-01	1,27E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,74E-03	5,83E-02	2,18E-02	-1,23E+00
Ozone depletion Pot.	kg CFC_{-11}e	3,24E-07	6,07E-09	3,41E-09	3,34E-07	2,04E-08	2,11E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,73E-10	8,41E-10	1,03E-09	-4,03E-08
Acidification	kg SO_2e	3,08E-02	1,12E-04	1,56E-04	3,11E-02	4,33E-04	1,53E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,58E-05	8,47E-05	2,83E-05	-1,07E-02
Eutrophication	kg PO_4^3e	1,69E-02	2,50E-05	7,77E-05	1,71E-02	8,56E-05	1,53E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,59E-06	5,83E-05	8,07E-04	-3,08E-03
POCP (“smog”)	kg C_2H_4e	1,51E-03	4,13E-06	2,06E-05	1,53E-03	9,80E-06	5,06E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,16E-07	3,36E-06	4,89E-06	-5,05E-04
ADP-elements	kg Sbe	1,09E-03	6,93E-08	2,76E-07	1,09E-03	6,19E-08	6,04E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,09E-08	5,87E-07	1,37E-08	-8,21E-05
ADP-fossil	MJ	5,60E+01	4,97E-01	7,77E-01	5,73E+01	1,58E+00	2,91E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,20E-02	1,20E-01	1,00E-01	-1,33E+01

ENVIRONMENTAL IMPACTS – GWP-GHG – THE INTERNATIONAL EPD SYSTEM

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	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013). In addition, the characterisation factors for the flows - CH4 fossil, CH4 biogenic and Dinitrogen monoxide - were updated in line with the guidance of IES PCR 1.2.5 Annex 1. 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.

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.

Elisabet Amat, as an authorized verifier acting for EPD Hub Limited
12.01.2024

APPENDIX 1: DOLPHIN SOLUTIONS ALAVO WASHWALL SYSTEM: AVAILABLE VARIATIONS

This EPD reflects an Alavo washwall system with three wash positions, full LED lighting options, integral taps, soap dispensers and the inclusion of paper towel dispensers as opposed to high-speed low energy hot air hand dryers.

The latter have been omitted as EPD's already exist for them as individual units and are available on request.

This EPD is designed to represent a typical order. However, every Alavo order can be considered a bespoke project with many variables to suit the space available, the degree of sophistication required and the desired aesthetic.

The following variations can be considered:

- Recess, corner or flat wall installations.
- Number of wash locations required. 1 to 8 available.
- Cabinet height & width.
- Type of tap mount: Integral, panel or counter mounted.
- With or without soap dispensers.
- Dryers only, paper towels only or both.
- With or without LED refill indicators.
- With or without LED decorative lighting.