ENVIRONMENTAL PRODUCT DECLARATION

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

DURAT composite material
Tonester Ltd

EPD HUB, HUB-0499
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Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Tonester Ltd
Address	Huhdantie 4, FI-21140 Naantali
Contact details	info@durat.com
Website	www.durat.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
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	Mervi Puska and Heikki Karppinen, Tonester Ltd
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. The data of raw materials is based on most accurate estimate and information as possible obtained from the production. The results shall be used with care as the uncertainties of these results are high.

PRODUCT

Product name	DURAT composite material
Additional labels	-
Product reference	D/R/Pxxxx-00/01/02…52
Place of production	Naantali, Finland
Period for data	Calendar Year 2021
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3	< 1 %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of composite
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO2e)	3,39E0
GWP-total, A1-A3 (kgCO2e)	3,35E0
Secondary material, inputs (%)	31.8
Secondary material, outputs (%)	90.0
Total energy use, A1-A3 (kWh)	11.5
Total water use, A1-A3 (m3e)	1,57E-2

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

The manufacturer is a circular economy pioneer from Finland: Great looking surfaces that are reusable, 100 % recyclable and contain up to 30 % recycled materials. The company Tonester Ltd (owns DURAT brand) was founded in 1990. DURAT composite is the result of its founders' aim to reuse waste plastic as a high-quality raw material for design products. The primary objective was to reduce the amount of plastic ending up in landfills. The company is entirely owned by its executive management.

PRODUCT DESCRIPTION

DURAT solid surfaces offer architects, designers, and builders a wide range of opportunities to create a variety of custom-made products (countertops, cupboards etc.). Sinks and bathtubs can also be cast from DURAT material. DURAT technology and the company's agility enable often precise answers to the customers many wishes and special needs. DURAT is an ecological polyester-based material that contains recycled post-industrial plastic. DURAT material is available in hundreds of different options. Uniform seamless surfaces can also be made up to tens of meters in both horizontal, vertical and depth directions.

Typically, DURAT solid surfaces are manufactured in sheets with a thickness of 9 to 18 mm and a size of 800 x 2900 mm. Materials thicker than 18 mm and thinner than 9 mm are also available. The greatest excellence of the DURAT products is its almost endless possibility for different of variations. Thus, its speckled or speckless design can be customized in all different colours on request. The ecological and expressive DURAT withstands everyday use, scratches, and wear. It is also very resistant to stains, chemicals, and heat. This environmental product declaration (EPD) data sheet covers the entire DURAT product range.

Further information can be found at www.durat.com.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	0.0	-
Minerals	33	Germany
Fossil materials	67	Finland and Sweden
Bio-based materials	0.0	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	
Biogenic carbon content in packaging, kg C	0.0136

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of composite
Mass per declared unit	1 kg
Functional unit	-
Reference service life	20 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			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	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.

Production includes the following activities: receiving and storing raw materials, and pre-treatment of raw materials at the production plant. In the beginning, all the different components arrive at the raw material production plant from the suppliers. Some raw materials are pre-treated before the production stage at the production plant. In the casting phase, the components are mixed into a mass, which is casted into shape of sheets (mainly) and sinks (partly). Polyester resin is used as a binder component. The mass includes fire retardant mineral, as well as hardener and color pigments. The cast material is sanded to a uniform thickness, e.g., on a wide belt sanding machine line. The dust is sucked into the dust extraction system. The left over from production can be reused in the production of the product. The sheets or sinks are packed on euro pallets. Polystyrene foam protections are placed between the sheets. The sides of the pallets are supported with a plywood sheet and the cover is also a plywood sheet.

Ancillary materials are consumed in the production, i.e., in the casting of the sheets or sinks and in the cleaning of the equipment as well as in the sanding & finishing of the sheets and sinks. Only very little production waste is generated in the casting of sheets/sinks. Main amount of waste is dust that is formed during the sanding of sheets or sinks. The packaging also uses euro pallets and polystyrene as an auxiliary material.

Impacts: The environmental effects of raw material deliveries (A1) arise when raw materials are taken from nature, transported to industrial units for processing and processed. Emissions also arise from the handling of waste from various production processes. All major upstream processes have been tried to be considered as well as it has been clarified. This phase includes all the raw materials needed to produce the final product, as well as the production of electricity and heat consumed during production.

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.

Impacts caused by the transport of products (A4) are created when the products are delivered from Naantali (Finland) to the customer. The average transport distance from the manufacturing site to the customer is

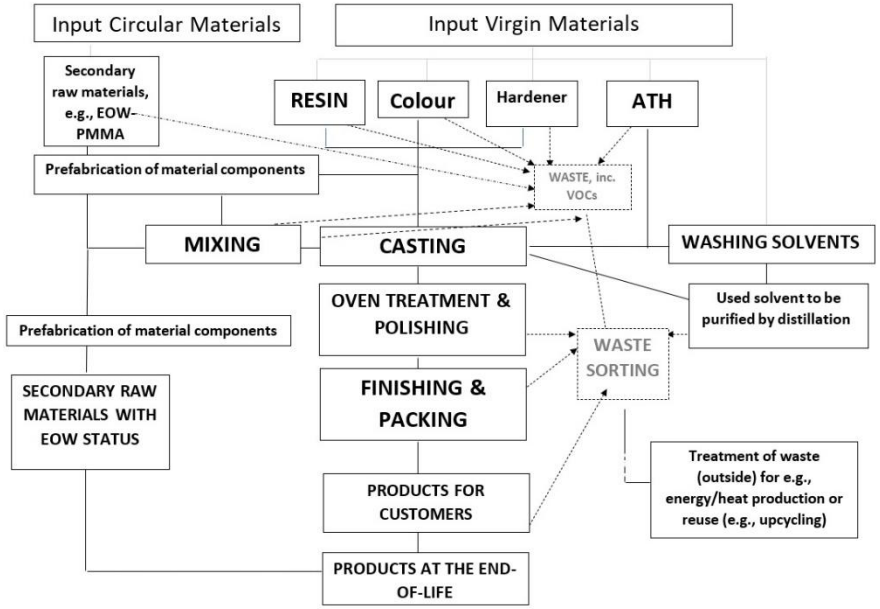
assumed to be 280 km by truck/lorry and 1960 km by sea. Empty returns are not considered, as it is assumed that the transport company uses the return trip to serve the needs of other customers. The transport does not cause loss, because the product is packed correctly. Customers are in different parts of Europe, mainly e.g., in the UK, Finland, Sweden and Italy. Emissions caused by the transporting of the installation waste or loss for re-use (A5) are created when the waste or loss is delivered for disposal, recycling, or further processing.

PRODUCT USE AND MAINTENANCE (B1-B7)

DURAT products have been manufactured since the beginning of the 1990s, and the substantiation for the RLS of 20 years is based on our observations that we have received from customers and the market. The use of DURAT product includes maintenance, which is typically cleaning with tap water and soap (recommended with ecological soap) over a period of 20 years (B2). For cleaning (e.g., from a spray bottle), water is used in such small quantities that it evaporates when it dries, and no wastewater is produced a lot. Polishing oil is also used by some, but it is not considered here. No sealing or additional maintenance is required. In most commonly and nearly always, DURAT products are intact and do not need to be repaired. In very few exceptions, they must be repaired. It is estimated that such cases are < 1% (B3). Material reclamation is less than 1% for sheets (B4). Some customers want to do a little enhancement about once every 10 years (B5). In these procedures, approximately a few grams or less of adhesive is consumed per kg for repair. In this, sandpaper (less than a gram per kg) is consumed and less than 1 kWh of electricity. The amount of waste generated is very minimal, and it can be disposed together with household wastes, e.g., as energy waste. Air, soil, and water impacts during the use phase have not been studied. DURAT products have M1 Emission Classification of building materials.

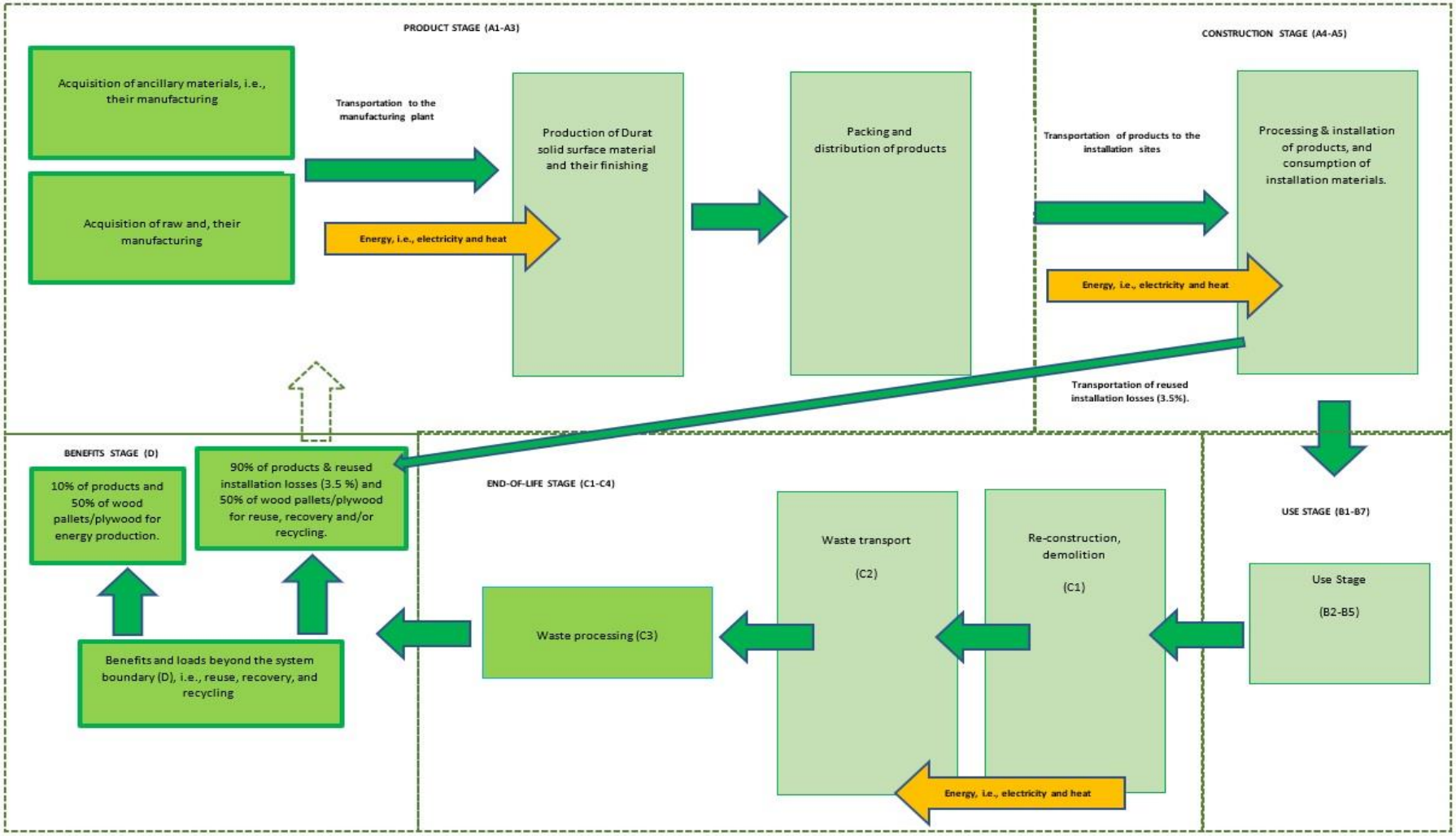
PRODUCT END OF LIFE (C1-C4, D)

The impact of demolition is assumed be a small amount, i.e., approximated less than <0.1 kWh of electricity per kg. Thus, DURAT products are easy to dismantle (C1). The assumption is that 90 % of the products are recycled (C1) and 10% utilized as energy waste. The transport distance to the energy waste treatment facility is assumed to be 40 km. The transport distance to the recycling process is assumed to be 280 km by lorry and 1960 km by container ship (C2). Since, 90% of DURAT products are assumed to be recycled (C3), meaning the DURAT product turns mainly into a raw material (D) at the end-of-life.



PROCESS DIAGRAM: The process diagram describing the manufacturing of DURAT products.

SYSTEM BOUNDARY



SYSTEM DIAGRAM: The system boundaries describing the manufacturing of DURAT products.

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 revenue

AVERAGES AND VARIABILITY

Type of average	Multiple products
Averaging method	Averaged by shares of total mass
Variation in GWP-fossil for A1-A3	< 1 %

DURAT production is divided into the production of sheets & sinks and the production by carpenters. The share of carpenters has been allocated to be for heating 60 % and electricity 15 %. These are not considered in the calculations. Raw materials, wastes, ancillary and packing materials are not allocated, i.e., their share is not much for carpentering.

Even though, DURAT products are manufactured in numerous different colour shades and slightly different looks. Their manufacturing recipes closely resemble each other. Therefore, the determination of average EPD was based on the compositions in the recipes, the recipes were divided into two main groups Type 1 and Type 2. The most significant difference in these two main groups was the quality of the secondary raw material, i.e., Circo component. In 2021, approximately 87% of Type 1 group products were manufactured and approximately 13% of Type 2 products. Representativeness of the average (shown on EPD), it represents all possible DURAT products, and the quality and quantity of both secondary raw material component types are considered in the calculation.

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.

SOME EXAMPLES OF DURAT PRODUCTS: DURAT composite is possible to be utilized in several applications and numerous different colour shades.

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	2,4E0	4,74E-2	1,12E0	3,57E0	2,47E-1	3,79E-1	0E0	1,54E-3	1,62E-2	1,91E-2	4,39E-2	0E0	0E0	1,85E-2	3,99E-2	6,33E-1	0E0	1,96E0
GWP – fossil	kg CO_2e	2,38E0	4,73E-2	1,16E0	3,59E0	2,49E-1	3,25E-1	0E0	1,8E-3	1,62E-2	1,84E-2	4,33E-2	0E0	0E0	1,8E-2	3,99E-2	6,35E-1	0E0	1,95E0
GWP – biogenic	kg CO_2e	1,99E-2	3,24E-5	-3,99E-2	-2E-2	-3,1E-5	5,58E-2	0E0	-3,76E-4	-2,49E-9	6,83E-4	5,97E-4	0E0	0E0	0E0	0E0	0E0	0E0	9,52E-3
GWP – LULUC	kg CO_2e	1,53E-3	1,5E-5	7,94E-4	2,34E-3	1,45E-4	1,78E-4	0E0	1,17E-4	8,95E-6	1,1E-5	3,49E-5	0E0	0E0	1,99E-4	1,84E-5	1,94E-4	0E0	3,39E-4
Ozone depletion pot.	kg $CFC_{-11}e$	3,11E-7	1,1E-8	4,16E-8	3,64E-7	5,1E-8	5,28E-8	0E0	2,45E-10	2,07E-9	2,51E-9	2,57E-8	0E0	0E0	2,5E-9	8,8E-9	2,44E-8	0E0	2,55E-8
Acidification potential	mol H^+e	1,27E-2	2,4E-4	2,8E-3	1,57E-2	7,41E-3	1,51E-3	0E0	1,25E-5	6,25E-5	1,05E-4	1,79E-4	0E0	0E0	7,3E-5	6,38E-4	9,92E-4	0E0	6,77E-3
EP-freshwater[2)]	kg Pe	8,86E-5	3,84E-7	6,1E-5	1,5E-4	1,15E-6	1,01E-5	0E0	2,1E-7	5,11E-7	6,51E-7	1,43E-6	0E0	0E0	8,68E-7	2,64E-7	5,55E-6	0E0	3,64E-5
EP-marine	kg Ne	2E-3	7,13E-5	3,81E-4	2,45E-3	1,85E-3	2,85E-4	0E0	5,64E-6	1,02E-5	1,7E-5	3,47E-5	0E0	0E0	1,23E-5	1,62E-4	2,82E-4	0E0	1,31E-3
EP-terrestrial	mol Ne	2,23E-2	7,88E-4	4,68E-3	2,78E-2	2,06E-2	3,17E-3	0E0	2,74E-5	1,14E-4	1,91E-4	3,68E-4	0E0	0E0	1,54E-4	1,8E-3	3,08E-3	0E0	1,43E-2
POCP ("smog")[3)]	kg NMVOCe	1,33E-2	2,43E-4	8,8E-3	2,24E-2	5,34E-3	1,67E-3	0E0	6,84E-6	8,87E-5	1,1E-4	1E-4	0E0	0E0	3,88E-5	4,87E-4	9,81E-4	0E0	6,58E-3
ADP-minerals & metals[4)]	kg Sbe	3,39E-5	8,36E-7	1,91E-6	3,67E-5	1,94E-6	2,63E-6	0E0	6,61E-8	2,22E-7	2,6E-7	3,76E-7	0E0	0E0	6,1E-8	5,2E-7	4,12E-6	0E0	1,95E-5
ADP-fossil resources	MJ	4,72E1	7,31E-1	1,01E1	5,8E1	3,26E0	9,42E0	0E0	2,78E-2	3,21E-1	3,68E-1	5,88E0	0E0	0E0	5,49E-1	5,74E-1	3,29E0	0E0	6,46E1
Water use[5)]	m^3e depr.	9,44E-1	2,69E-3	1,31E-1	1,08E0	6,96E-3	8,39E-2	0E0	1,98E-3	6,35E-3	7,21E-3	1,45E-2	0E0	0E0	4,64E-3	1,79E-3	7,06E-2	0E0	9,1E-1

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	1,79E0	9,18E-3	1,5E0	3,3E0	2,31E-2	5,72E-1	0E0	6,81E-3	1,01E-2	1,32E-2	3,77E-1	0E0	0E0	1,71E-1	5,99E-3	1,61E-1	0E0	-3,54E-1
Renew. PER as material	MJ	0E0	0E0	5,31E-1	5,31E-1	0E0	-5,11E-1	0E0	0E0	0E0	5,33E-3	4,04E-4	0E0	0E0	0E0	0E0	0E0	0E0	9,1E-3
Total use of renew. PER	MJ	1,79E0	9,18E-3	2,03E0	3,83E0	2,31E-2	6,09E-2	0E0	6,81E-3	1,01E-2	1,85E-2	3,77E-1	0E0	0E0	1,71E-1	5,99E-3	1,61E-1	0E0	-3,45E-1
Non-re. PER as energy	MJ	3,04E1	7,31E-1	1E1	4,12E1	3,26E0	8,49E0	0E0	2,78E-2	1,85E-1	2,32E-1	5,88E0	0E0	0E0	5,49E-1	5,74E-1	3,29E0	0E0	2,11E1
Non-re. PER as material	MJ	1,68E1	0E0	-2,98E0	1,38E1	0E0	6,2E-2	0E0	0E0	1,36E-1	1,36E-1	0E0	0E0	0E0	0E0	0E0	-1,42E1	0E0	-2,54E-1
Total use of non-re. PER	MJ	4,72E1	7,31E-1	7,04E0	5,5E1	3,26E0	8,55E0	0E0	2,78E-2	3,21E-1	3,68E-1	5,88E0	0E0	0E0	5,49E-1	5,74E-1	-1,09E1	0E0	2,09E1
Secondary materials	kg	3,18E-1	0E0	5,15E-5	3,18E-1	0E0	1,75E-2	0E0	1,46E-5	5,1E-5	6,36E-5	2,42E-7	0E0	0E0	0E0	0E0	0E0	0E0	4,54E-3
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0

Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	1,32E-2	1,49E-4	3,2E-3	1,66E-2	3,43E-4	2,32E-3	0E0	1,97E-4	7,97E-5	1,01E-4	1,33E-3	0E0	0E0	1,51E-4	9,53E-5	1,05E-3	0E0	4,94E-3

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	4,69E-1	7,23E-4	3,4E-2	5,04E-1	3,48E-3	3,21E-2	0E0	1,04E-4	8,52E-4	4,09E-3	3,31E-3	0E0	0E0	1,23E-3	5,99E-4	0E0	0E0	7,34E-2
Non-hazardous waste	kg	3,9E0	7,56E-2	2,93E0	6,91E0	8,28E-2	4,83E-1	0E0	2,5E-3	2,28E-2	2,9E-2	6,38E-2	0E0	0E0	3,14E-2	4,2E-2	0E0	0E0	1,57E0
Radioactive waste	kg	9,41E-5	5,01E-6	5,89E-5	1,58E-4	2,28E-5	8,03E-5	0E0	4,92E-8	5,71E-7	6,94E-7	6,99E-5	0E0	0E0	5,76E-6	3,97E-6	0E0	0E0	4,07E-7

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	0E0	0E0	0E0	0E0	0E0	3,45E-2	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	9E-1	0E0	0E0
Materials for recycling	kg	0E0	0E0	7E-4	7E-4	0E0	3,5E-2	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	1,6E-1	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	2,18E0	2,18E0	0E0	8E-1	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	0E0	3,41E0	0E0	0E0

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	2,27E0	4,69E-2	1,15E0	3,47E0	2,47E-1	3,16E-1	0E0	1,76E-3	1,54E-2	1,74E-2	4,23E-2	0E0	0E0	1,77E-2	3,96E-2	6,27E-1	0E0	1,8E0
Ozone depletion Pot.	kg CFC_{-11}e	3,7E-7	8,78E-9	4,78E-8	4,26E-7	4,04E-8	6,98E-8	0E0	3,07E-10	2,49E-9	2,97E-9	3,97E-8	0E0	0E0	3,37E-9	6,99E-9	2,03E-8	0E0	2,24E-8
Acidification	kg SO_2e	1,05E-2	1,29E-4	2,4E-3	1,3E-2	5,88E-3	1,23E-3	0E0	9,85E-6	5,25E-5	8,67E-5	1,48E-4	0E0	0E0	6,01E-5	4,8E-4	6,27E-4	0E0	5,88E-3
Eutrophication	kg PO_4^3e	4,07E-3	2,31E-5	1,94E-3	6,03E-3	6,67E-4	4,44E-4	0E0	5,03E-6	2,04E-5	3,01E-5	5,91E-5	0E0	0E0	2,53E-5	5,76E-5	7,14E-4	0E0	1,54E-3
POCP (“smog”)	kg C_2H_4e	8,38E-4	6,85E-6	9,62E-5	9,41E-4	1,53E-4	6,91E-5	0E0	6,05E-7	5,29E-6	6,73E-6	6,67E-6	0E0	0E0	2,5E-6	1,42E-5	5,71E-5	0E0	5,53E-4
ADP-elements	kg Sbe	3,39E-5	8,36E-7	1,91E-6	3,67E-5	1,94E-6	2,63E-6	0E0	6,61E-8	2,22E-7	2,6E-7	3,76E-7	0E0	0E0	6,1E-8	5,2E-7	4,12E-6	0E0	1,95E-5
ADP-fossil	MJ	4,72E1	7,31E-1	1,01E1	5,8E1	3,26E0	9,42E0	0E0	2,78E-2	3,21E-1	3,68E-1	5,88E0	0E0	0E0	5,49E-1	5,74E-1	3,29E0	0E0	6,46E1

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
16.06.2023

VERIFIED ISO 14025