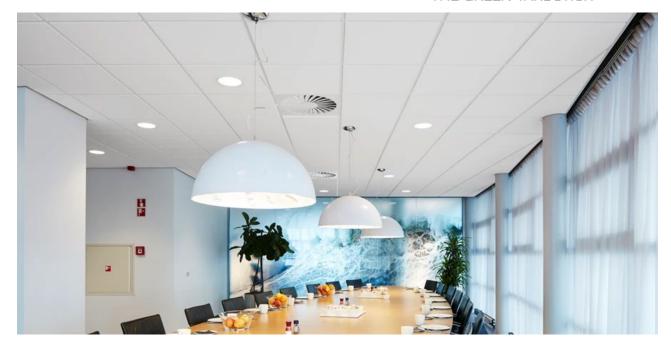




THE GREEN YARDSTICK



ENVIRONMENTAL PRODUCT DECLARATION

In accordance with EN 15804 and ISO 14025

Ecophon Connect[™] T24 Grid System C4



Programme: The International EPD® System, Programme operator: EPD International AB

Version: 1.0

Registration number: S-P-05275

Date of publication (issue): 2021-12-08 Date of revision: 2022-05-11 Date of validity: 2026-12-08

In accordance with ISO 14025, ISO 21930 and EN 15804





Summary Environmental product declaration

Content summary	
Verified by (external third-party verifier)	Martin Erlandsson, IVL Swedish Environmental Research Institute
Programme used	The International EPD System. For more information see www.environdec.com
Registration No	S-P-05275
Owners declaration by	Saint-Gobain Ecophon AB Box 500 265 03 Hyllinge Sweden
Declaration as construction products	The products to be verified herein are grid profiles for ceiling suspension systems. The present environmental product declaration complies with standard ISO 14025 and describes the environmental impact. Its purpose is to promote compatible and sustainable environmental development of related construction methods.
	Reference PCR document: EN 15804 as the core PCR + International EPD System Product Category Rules - PCR for constructions products and construction services. EPD of construction products may not be comparable if they do not comply with EN 15804.
Validity	2026-12-08
Content of the declaration	This is an environmental product declaration containing environmental information of the product in the Ecophon family T24 Grid System C4. The values presented in this EPD are represented for the following products: T24 Main runner C4, T24 Cross tee C4 600/625, T24 Cross tee C4 1200/1250
L. J. L.	Supplemental product information can be found at www.ecophon.com
Issued date	2021-12-08

Product responsible:

Thomas Roul Product Engineering & Development Manager Saint-Gobain Ecophon AB Martin Erlandsson

V Hair CLANGEON

LCA Business Development Manager

Independent third party verifier:

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Product description

Product description and description of use:

This Environmental Product Declaration (EPD) describes the environmental impact of 1 linear meter (1 lm) of installed steel profile with the intended use to suspend acoustic ceiling tiles.

The production site of Saint-Gobain Ecophon (Sweden) manufactures ceiling grid systems in different sizes. Cold rolled steel is shaped into a "body" through a process called roll forming. Multiple holes are then punched in the body to allow installation. Lastly, a cap of steel ("capping") is added on the body to make the grid visually appealing. The capping is added to the body. The finished grids are then packed in cardboard boxes. The grids provide excellent mechanical characteristics to suspend acoustic ceiling tiles, which contribute to a better health by their sound absorption capabilities. There is no maintenance needed for the grids except for normal room surface cleaning and there is no ageing, hence the grid system can last for the building lifetime.

Description of the main product and materials for 1 lm of product:

Parameter	Value
Product height	32-38 mm
Product width	24 mm
Hot-dip galvanized steel	>99.7wt.%

Total weights										
T24 Main T24 Cross tee T24 Cross te										
Product	runner C4	C4 600/625	C4 1200/1250							
Total weight [kg]	0,40	0,38	0,38							

All raw materials contributing more than 5% to any environmental impact are listed in the table above. The panels are free from substances of very high concern (SVHC). The product contains no substances from the REACH Candidate list (of 01.11.2021).

If in the future product changes that generate an increased impact larger than 10% occur, the EPD will be updated and reverified.

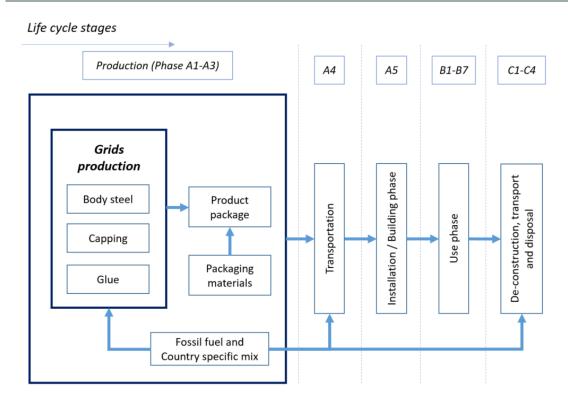
LCA calculation information

Declared unit	1 lm of installed steel profile
System boundaries	Cradle to grave: Mandatory stages = A1-3, A4-5, B1-7, C1-4 and optional stage = D This EPD covers the environmental impact of only the ceiling profiles.
Reference Service Life (RSL)	50 years
Cut-off rules	The use of cut-off criterion on mass inputs and primary energy at the unit process level (1%) and at the information module level (5%). Flows related to human activities such as employee transport are excluded. Biogenic carbon has not been included in calculations. The construction of plants, production of machines and transportation systems are excluded since the related flows are supposed to be negligible compared to the production of the building product when compared at these systems lifetime level.
Allocations	Allocation criteria are based on mass.
Geographical coverage and time period	For A1-A3: Global For A4 : European covering (2019)

According to EN 15804, EPD of construction products might not be comparable if they do not comply with this standard. According to ISO 21930, EPD's might not be comparable if they are from different EPD administrating schemes.

Life Cycle stages

Flow diagram of the Life Cycle



Product stage, A1-A3

Description of the stage:

The product stage is divided into 3 modules: A1 "Raw material and supply", A2 "Transport to the manufacturer" and A3 "Manufacturer". The aggregation of the modules A1, A2 and A3 is a possibility considered by the EN 15 804 standard. This rule is applied in this EPD.

A1 Raw material supply

This module takes into account the extraction and processing of all raw materials and energy which occur upstream to the studied manufacturing process. Specifically, the steel material supply covers production of the cold rolled steel and eventual coating. Packaging and glue production is also included here. All electricity is taken account for in (GOs) or at least country specific mix.

A2 Transport to the manufacturer

The raw materials are transported to the manufacturing site. In our case, the modelling includes: road, boat or train transportations (average values) of each raw material.

A3 Manufacturing

Cold rolled steel is transformed by deforming, shaping and cutting the raw material into the final dimensions. Manufacturing covers all processes linked to production, which comprises various related operations besides on-site activities such as perforation, pinching, packaging and internal transportation.

The environmental profile of these energy carriers is modelled for local conditions. Packaging-related flows in the production process and all up-stream packaging are included in the manufacturing module, i.e. wooden pallets and cardboard. Apart from production of packaging material, the supply and transport of packaging material are also considered in the LCA model. They are reported and allocated to the module where the packaging is applied. Data on packaging waste created during this step is then generated. It is assumed that packaging waste generated in the course of production and up-stream

processes is 100% collected and either recycled or incinerated with energy recovery, related to material and quality, in ratios according to the local material handling companies.

Construction process stage, A4-A5

Description of the stage:

The construction process is divided into 2 modules: A4 "Transport to the building site" and A5 "Installation in the building.

Description of scenarios and additional technical information:

A4 Transport to the building site

This module includes transport from the production gate to the building site. Transport is calculated on the basis of a scenario with the parameters described in the following table.

Parameter	Value
Fuel type, consumption of fuel and vehicle or vehicle type used for transport	Average truck trailer with a 24t payload, diesel consumption 31.7 litres for 100 km
Distance	475 km (based on transports in 2019)
Capacity utilisation (including empty returns)	90% of the capacity in volume 100% of empty returns
Bulk density of transported products (if available)	0,25 - 0,4 kg/m
Volume capacity utilisation factor (if available)	0.45

The transport distance has been calculated from a European average transport for Ecophon in 2019 from the parameters in the table above.

A5:1 Installation in the building

This module includes waste of products during the implementation, i.e. the additional production processes to compensate the loss and the waste processing which occur in this stage.

Scenarios used for product waste quantity and waste processing are:

Parameter	Value
Waste of materials on the building site before waste processing, generated by the product's installation	5%
Output materials (specified by type) as results of waste processing at the building site e.g. of collection for recycling,	Packaging waste is 100 % collected and modelled as material for recycling
for energy recovering, disposal	Grid waste is recycled.

A5:2 Energy usage

As a general figure the time to install 1 m^2 ceiling is considered to be 20 minutes. During this time the installer is considered to use handheld appliances for about 5% of this time which in this case results in 1 minute. A handheld device such as a cordless screwdriver is considered to have a power of 0.7 kilowatt. Therefore, in one minute it will consume a total energy of $0.7 \text{ ^*}60 = 4.2 \text{ kilojoule} = 0.0042 \text{ MJ}$, per m^2 ceiling. In this context it is a negligible contribution and will not be part of the LCA calculation (lower than 0.1% of the total energy consumption).

Use stage (excluding potential savings), B1-B7

Description of the stage:

The use stage is divided into 7 modules, B1 "Use", B2 "Maintenance", B3 "Repair", B4 "Replacement", B5 "Refurbishment", B6 "Operational energy use", B7 "Operational water use"

Description of scenarios and additional technical information:

Once installation is complete, no actions or technical operations are required during the use stages until the end of life stage. Therefore, grids have no impact on this stage.

End-of-life stage C1-C4

Description of the stage:

The end-of life stage is divided into 4 modules; C1 "De-construction, demolition", C2 "Transport to waste processing", C3 "Waste processing for reuse, recovery and/or recycling", C4 "Disposal".

Description of scenarios and additional technical information:

C1, De-construction, demolition

The dismantling of the grid system is assumed to be very small and can therefore be neglected.

C2, Transport to waste processing

The model for transportation (see A4, Transportation to the building site) is applied.

C3, Waste processing for reuse, recovery and/or recycling;

Minimal processing before recycling.

C4, Disposal;

The product is assumed to be 100% recycled.

Parameter	Value/description
Collection process specified by type	0,25 - 0,4 kg of steel grid
Recovery system specified by type	Grid collected as sorted metal
Disposal specified by type	0,25 - 0,4 kg of grid to recycling
Assumptions for scenario development (e.g. transportation)	Average truck trailer with a 24t payload, diesel consumption 31.7 litres for 100 km 50 km (distance to recycling)

Reuse/recovery/recycling potential, D

Not declared.

LCA results

LCA model, aggregation of data and environmental impact are calculated through the GaBi Professional software. Secondary data is mainly taken from Ecoinvent 3.7 with some GaBi datasets.

Raw materials and energy consumption, as well as transport distances have been taken directly from the manufacturing plants of Saint-Gobain Ecophon in 2019.

Modules declared and geographical scope are stated in the following table.

	Product phase		ıase	Construction process phase		Use phase			Eı	nd of li	fe phas	ie	Resou rce recov ery phase				
	Raw material and supply	Transport to the manufacturer	Manufacturing	Transport to the building site	Installation in the building	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport to waste processing	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	Αl	A2	А3	A4	A5	В1	В2	ВЗ	В4	B5	В6	B7	Cl	C2	C3	C4	D
Modules declared	Х	Х	Χ	Х	Χ	×	Χ	Χ	Χ	Х	Χ	Х	Χ	Х	Х	Х	MND
Geography	GLO	GLO	SE	EU	EU								EU	EU	EU	EU	-
Specific data	ecific data <10%						I	-									
Variation sites		N/A								-							-

Summary of the LCA results are detailed in the tables below.

All results in the EPD are written in logarithmic base of ten. Reading example: $5.2E \cdot 03 = 5.2 \cdot 10^3 = 0,0052$.

MND (module not declared), is equal to MNA (module not assessed).

			4		a d
н	nvir	٦nm	anta	Lim	pact.
_	11 4 11 7	/	CIILA		Dact.

		E nviro	nmental impacts		
Paran	neters	Liviro	T24 Main runner C4	T24 Cross tee C4 600/625	T24 Cross tee C4 1200/1250
		A1-A3	1.32E+00	1.29E+00	1.15E+00
		A4 A5	1.56E-02	1.45E-02	1.46E-02
		B 1-B7	6,76E-02 0,00E+00	6,50E-02 0,00E+00	5,83E-02 0,00E+00
		C1	0,00E+00	0,00E+00	0,00E+00
9		C2	1,64E-03	1,53E-03	1,54E-03
_		C3	0,00E +00	0,00E +00	0,00E+00
	Global Warming Potential	C4 D	0,00E+00	0,00E +00	0,00E+00
	(GWP) - kg CO ₂ equiv/FU	Total A-C	MND 1,40E+00	MND 1,37E+00	MND 1,22E+00
				ming potential of ution to global w	
				on of one unit of	
				e reference gas, s assigned a valı	
				o assigned a vale	
		A1-A3	5,56E-09	4,80E-09	3,45E-09
		A4	3,54E-18	3,30E-18	3,33E-18
		A.5 B 1-B7	2,80E-10 0,00E+00	2,40E-10 0,00E+00	1,72E - 10 0,00E +00
≈ (C1	0,00E+00	0,00E+00	0,00E+00
3		C2	3,73E-19	3,47E-19	3,50E-19
	0 0 (000)	C3	0,00E+00	0,00E +00	0,00E+00
	Ozone Depletion (ODP) kg CFC 11 equiv/FU	C4	0,00E +00	0,00E +00	0,00E+00
		D	MND	MND	MND
		Total A-C	5,84E-09 Destruction of the s	5,04E-09 stratospheric ozone	3,62E-09 layer which shield:
			the earth from ul	traviolet radiation ha	rmful to life. This
			chlorine and/	e is caused by the b or bromine containin	g compounds
			(chlorofluorocarbon	s or halogens), whic stosphere and then c	h break down whe
				ozona molaculas	
		A1-A3 A4	3,07E-03	2,95E-03	2,65E-03
		A4 A5	2,11E-05 1.56E-04	1,96E-05 1.49E-04	1,98E-05 1,34E-04
		B 1-B7	0,00E+00	0,00E+00	0,00E+00
		C1	0,00E+00	0,00E+00	0,00E+00
5	Acidification potential (AP)	C2	2,22E-06	2,07E-06	2,08E-06
		C3	0,00E +00	0,00E +00	0,00E+00
	kg SO₂ equiv/FU	C4 D	0,00E+00	0,00E +00	0,00E+00
		Total A-C	MND 3,25E-03	MND 3,12E-03	MND 2,81E-03
	TOWN A-C		have negative im		
				d the man-made e	
			buildings. The mai substances are a	in sources for emis griculture and foss	
				y production, heat	
		A1-A3	5,25E-04	5,15E-04	4,39E-04
		A4	4,45E-06	4,15E-06	4,18E-06
		A.5	2,67E-05	2,61E-05	2,22E-05
		B 1-B7 C1	0,00E+00	0,00E+00	0,00E+00
		C2	0,00E+00 4,69E-07	0,00E+00 4,36E-07	0,00E+00 4,40E-07
	Eutrophication potential	C3	0,00E+00	0,00E+00	0,00E+00
	(EP) kg (PO ₄) ³ - equiv/FU	C4	0,00E +00	0,00E +00	0,00E+00
		D	MND	MND	MND
		Total A-C	5,56E-04	5,46E-04	4,66E-04
				hment of waters	
				nutrients, and th	
		A1-A3 A4	4,84E-04	4,64E-04	4,16E-04
		A.5	-6,30E-06 2.39F-05	-5,86E-06 2,28E-05	-5,92E-06 2,04E-05
<u>.</u>		B 1-B7	0,00E+00	0,00E+00	0,00E+00
8		C1	0,00E+00	0,00E +00	0,00E+00
	Photochemical ozone	C2	-6,63E-07	-6,17E-07	-6,23E-07
	creation (POPC) kg Ethene	C3	0,00E+00	0,00E +00	0,00E+00
	equiv/FU	C4 D	0,00E +00 MND	0,00E +00 MND	0,00E+00 MND
		Total A-C	5,01E-04	4,81E-04	4,30E-04
			Chemical reactions	brought about by	the light energy
			the sun. The hydrocarbons in th	reaction of nitroge	n oxides with
				ie presence or sun le of a photochemi	
		A1-A3	6.07E-06	5.85E-06	5.36E-06
		A4	5.73E-10	5.33E-10	5.38E-10
ð.,		A.5 B 1-B7	3,06E-07	2,92E-07	2,68E-07
	Abiotic depletion potential	B 1-B7 C1	0,00E +00 0,00E +00	0,00E +00 0,00E +00	0,00E +00 0,00E +00
	for non-fossil resources (ADP-elements) - kg Sb	C2	6,03E-11	5,61E-11	5,67E-11
	equiv/FU	C3	0,00E+00	0,00E +00	0,00E+00
		C4	0,00E +00	0,00E+00	0,00E+00
		D	MND	MND	MND
		Total A-C A1-A3	6,38E-06	6,15E-06	5,63E-06
		A1-A3	1,34E+01 2.14E-01	1,28E+01 1,99E-01	1,16E+01 2,01E-01
		A.5	6,87E-01	6,54E-01	5,93E-01
à,		B 1-B7	0,00E+00	0,00E+00	0,00E+00
ال		C1	0,00E+00	0,00E+00	0,00E+00
	Abiotic depletion potential	C2	2,25E-02	2,10E-02	2,12E-02
	for fossil resources (ADP- fossil fuels) - MJ/FU	C3	0,00E +00	0,00E +00	0,00E+00
		C4 D	0,00E+00	0,00E +00	0,00E+00
		D Total A-C	MND 1,43E+01	MND 1,36E+01	MND 1,24E+01
				of non-renewab ring their availab	
			c.eby lowe	generations.	/ 101018
			thereby lowe		ility for future

		Enviro	nmental impacts		
Paran	neters		T24 Main runner C4	T24 Cross tee C4 600/625	T24 Cross tee C4 1200/1250
		A1-A3 A4	9.64E-01 5.22E-03	9.42E-01 4.86E-03	8.82E-01 4.90E-03
		A.5	4,88E-02	4,74E-02	4,44E-02
	Use of renewable primary energy excluding renewable	B1-B7 C1	0,00E +00 0,00E +00	0,00E +00 0,00E +00	0,00E+00 0,00E+00
	primary energy resources used as raw materials	C2	5,49E-04	5,11E-04	5,16E-04
	- MJ /FU	C3 C4	0,00E +00 0.00E +00	0,00E+00 0,00E+00	0,00E+00 0,00E+00
		D	MND	MND	MND
		Total A-C	1,02E+00	9,95E-01	9,32E-01
		A1-A3 A4	0,00E +00 0.00E +00	0,00E +00 0.00E +00	0,00E+00 0.00E+00
		A.5	0,00E+00	0,00E+00	0,00E +00
	Use of renewable primary energy used as rawmaterials	B1-B7 C1	0,00E+00 0,00E+00	0,00E+00 0,00E+00	0,00E+00 0,00E+00
	- MJ /FU	C2	0,00E +00	0,00E +00	0,00E+00
		C3 C4	0,00E+00	0,00E +00 0.00E +00	0,00E+00 0.00E+00
		D	0,00E +00 MND	MND	MND
		Total A-C	0,00E+00	0,00E+00	0,00E+00
		A1-A3 A4	9,64E-01 5.22E-03	9,42E-01 4.86E-03	8,82E-01 4,90E-03
		A.5	4,88E-02	4,74E-02	4,44E-02
reso	se of renewable primary energy ources (primary energy and	B1-B7 C1	0,00E +00 0,00E +00	0,00E +00 0,00E +00	0,00E+00 0,00E+00
primar	y energy resources used as raw materials)	C2	5,49E-04	5,11E-04	5,16E-04
	- MJ /FU	C3 C4	0,00E+00	0,00E+00	0,00E +00
		D D	0,00E+00 MND	0,00E +00 MND	0,00E+00 MND
		Total A-C	1,02E+00	9,95E-01	9,32E-01
			T24 Main runner C4	T24 Cross tee C4 600/625	T24 Cross tee C4 1200/1250
		A1-A3 A4	1,42E+01 2.16E-01	1,36E+01 2.01E-01	1,23E+01 2.03E-01
	U of	A.5	7,28E-01	6,93E-01	6,28E-01
U	Use of non-renewable primary energy excluding	B1-B7 C1	0,00E +00 0.00E +00	0,00E +00 0.00E +00	0,00E +00 0.00E +00
	non-renewable primary energy resources used as raw	C2	2,28E-02	2,12E-02	2,14E-02
	materials - MJ /FU	C3 C4	0,00E +00 0,00E +00	0,00E+00 0,00E+00	0,00E +00 0,00E +00
		D	MND	MND	MND
		Total A-C	1,52E+01 0.00E+00	1,45E+01 0,00F+00	1,32E+01 0.00E+00
		A4	0,00E+00	0,00E+00	0,00E+00
	Use of non-renewable	A5 B1-B7	0,00E+00	0,00E +00	0,00E+00
U	primary energy used as raw	C1	0,00E +00 0,00E +00	0,00E +00 0,00E +00	0,00E+00 0,00E+00
	materials - MJ /FU	C2	0,00E+00	0,00E+00	0,00E+00
		C3 C4	0,00E +00 0.00E +00	0,00E +00 0,00E +00	0,00E+00 0.00E+00
		D	MND	MND	MND
		Total A-C A1-A3	0,00E+00 1.42F+01	0,00E+00 1.36E+01	0,00E+00 1.23E+01
		A4	2,16E-01	2,01E-01	2,03E-01
Total	use of non-renewable primary	A.5 B.1-B.7	7,28E-01 0,00F+00	6,93E-01 0.00F+00	6,28E-01 0,00F+00
energy	resources (primary energy and y energy resources used as raw	C1	0,00E +00	0,00E +00	0,00E +00
primar	materials) - MJ /FU	C2	2,28E-02	2,12E-02	2,14E-02
		C3 C4	0,00E +00 0,00E +00	0,00E +00 0,00E +00	0,00E+00 0,00E+00
		D	MND	MND	MND
		Total A-C	1,52E+01	1,45E+01 T24 Cross tee C4	1,32E+01 T24 Cross tee C4 1700/1750
		A1-A3	0,00E +00	0.00E +00	0,00E +00
		A4	0,00E +00	0,00E+00	0,00E+00
(29)		A5 B1-B7	0,00E +00 0.00E +00	0,00E +00 0,00E +00	0,00E +00 0,00E +00
	Use of secondary material Kg/FU	C1	0,00E+00	0,00E+00	0,00E+00
		C2 C3	0,00E +00 0.00E +00	0,00E+00 0,00E+00	0,00E+00
		C3	0,00E +00 0,00E +00	0,00E+00 0,00E+00	0,00E +00 0,00E +00
		D Total A-C	MND	MND	MND
		ı atal A-C	0,00E +00	0,00E +00 T 24 Cross tee C4	0,00E+00 T24 Cross tee C4
		A1-A3	0,00E +00	600/625 O,00E +00	1200/1250 0,00E +00
%		A4	0,00E +00	0,00E +00	0,00E+00
	Use of renewable secondary fuels	A5 B1-B7	0,00E +00 0.00E +00	0,00E +00 0.00E +00	0,00E+00 0.00E+00
	MJ /FU	C1	0,00E+00	0,00E +00	0,00E+00
		C2 C3	0,00E +00 0,00E +00	0,00E+00 0,00E+00	0,00E +00 0,00E +00
		C4	0,00E+00 0,00E+00	0,00E+00 0,00E+00	0,00E+00
		D Total A-C	MND	MND	MND
		ı atal A-C	0,00E+00	0,00E+00 T24 Cross tee C4 600/625	0,00E+00 T 24 Cross tee C4 1200/1250
		A1-A3	0,00E+00	0,00E +00	1200/1250 O,00E +00
%		A4	0,00E+00	0,00E+00	0,00E+00
	Use of non-renewable	A.5 B 1-B 7	0,00E +00 0,00E +00	0,00E +00 0,00E +00	0,00E +00 0,00E +00
	secondary fuels - MJ /FU	C1	0,00E+00	0,00E+00	0,00E +00
		C2	0,00E+00	0,00E+00	0,00E+00
		C3	0,00E +00 0,00E +00	0,00E +00 0,00E +00	0,00E +00 0,00E +00
		D	MND	MND	MND
		Total A-C	0,00E+00	0,00E+00	0,00E+00 T24 Cross tee C4
		41.40	T 24 Main runner C4	T 24 Cross tee C4 600/625	1200/1250
		A1-A3	8,79E-03 1,32E-06	8,29E-03 1,23E-06	7,58E-03 1,24E-06
(2)	Har of and C. I	A.5	4,42E-04	4,15E-04	3,79E-04
9	Use of net fresh water m ³ /FU	B1-B7 C1	0,00E+00 0,00E+00	0,00E +00 0,00E +00	0,00E +00 0,00E +00
		C2	1,39E-07	1,30E-07	1,31E-07
		C3 C4	0,00E+00	0,00E+00	0,00E +00
		C4 D	0,00E +00 MND	0,00E+00 MND	0,00E +00 MND
		Total A-C	9,23E-03	8,71E-03	7,96E-03

	E nviro	nmental impacts		
Parameters		T 24 Main runner C4	T 24 Crass too C 4 600/625	T 24 Cross tee C4 1200/1250
	A1-A3	9.60E-09	9.29E-09	8.55E-09
	A4	2,30E-12	2,15E-12	2,16E-12
-	A.5	4,83E-10	4,64E - 10	4,27E - 10
Mazardous waste	B1-B7	0,00E+00	0,00E +00	0,00E +00
dis pos ed	C1	0,00E+00	0,00E +00	0,00E +00
kg /FU	C2	2,43E-13	2,26E - 13	2,28E-13
	C3	0,00E+00	0,00E +00	0,00E +00
	C4	0,00E+00	0,00E +00	0,00E +00
	D	MND	MND	MND
	Total A-C	1,01E-08	9,75E-09	8,98E-09
		T 24 Main runner C4	T 24 Cross tee C 4 600/625	T 24 Cross tee C4 1200/1250
	A1-A3	1,06E-01	1,13E-01	7,58E-02
	A4	5,81E-06	5,41E-06	5,46E-06
	A.5	5,34E-03	5,63E-03	3,79E-03
Non-hazardous	B1-B7	0,00E+00	0,00E +00	0,00E +00
waste	C1	0,00E+00	0,00E +00	0,00E +00
dis posed - kg /FU	C2	6,12E-07	5,70E-07	5,75E-07
	C3	0,00E+00	0,00E +00	0,00E +00
	C4	0,00E+00	0,00E +00	0,00E +00
	D	MND	MND	MND
	Total A-C	1,12E-01	1,18E-01	7,96E-02
		T 24 Main runner C4	T 24 Cross toe C4 600/625	T 24 Cross tee C4 1200/1250
	A1-A3	9,57E-07	9,30E-07	8,65E-07
	A4	2,54E-07	2,36E-07	2,38E-07
Radioactive waste	A.5	6,60E-08	6,34E-08	5,90E-08
disposed	B1-B7	0,00E +00	0,00E +00	0,00E +00
kg /FU	C1	0,00E +00	0,00E +00	0,00E +00
	C2	2,67E-08	2,48E-08	2,51E-08
	C3	0,00E+00	0,00E+00	0,00E +00
	C4	0,00E+00	0,00E+00	0,00E +00
	D	MND	MND	MND

Output flow

Environmental impacts							
Paran	neters		T 24 Main runner C4	T 24 Cross too C 4	T 24 Cross tee C 4		
	Components for re-use kg/FU	A1-A3		600/625	1200/1250		
		A1-A3					
		A5					
		B1-B7	•				
(
		C1	•				
		C2					
		C3					
		C4					
		D	MND	MND	MND		
		Total A-C					
	Materials for recycling kg/FU		T 24 Main runner C4	T 24 Cross tee C 4 600/625	T 24 Cross tee C 4 1200/1250		
		A1-A3	0,00E +00	0,00E+00	0,00E+00		
		A4	0,00E +00	0,00E+00	0,00E+00		
(a)		A5	7,93E-02	7,64E-02	5,92E-02		
		B1-B7	0,00E+00	0,00E+00	0,00E+00		
		C1	0,00E+00	0,00E+00	0,00E+00		
		C2	0.00E+00	0,00E+00	0.00E+00		
		C3	0.00E+00	0.00E+00	0.00E+00		
		C4	4.07E-01	3.78E-01	3.82E-01		
		D	MND	MND	MND		
		Total A-C	4.86E-01	4.54E-01	4.41E-01		
			T 24 Main runner C4	T24 Cross tee C4 600/625	T 24 Cross tee C 4 1200/1250		
		A1-A3			-		
		A1-A3 A4		-	-		
					-		
6		A4					
	Materials for energy	A4 A5		-	-		
	Materials for energy reovery - kg/FU	A4 A5 B1-B7	: : :				
6		A4 A5 B1-B7 C1	-				
6		A4 A5 B1-B7 C1 C2	-				
 ★		A4 A5 B1-B7 C1 C2 C3					
•		A4 A5 B1-B7 C1 C2 C3 C4					
•		A4 A5 B1-B7 C1 C2 C3 C4 D	- - - - - MND				
•		A4 A5 B1-B7 C1 C2 C3 C4 D	MND	- MND - T24 Cross tee C4			
6		A4 A5 B1-B7 C1 C2 C3 C4 D Total A-C	MND	- MND - 124 Cross tee C4 600/625	MND 128 Crust tee C4 1200/1250		
6		A4 A5 B1-B7 C1 C2 C3 C4 D Total A-C	MND - T24 Mcin runner C4 0,00E +00	- MND - T24 Cross tee C4 600/625 0,00E +00	MND T24 Cross tee C4 1200/1250 0,00E+00		
		A4 A5 B1-B7 C1 C2 C3 C4 D Total A-C	MND - T 24 Moin runner C4 O,00E +00 O,00E +00	MND - 124 Cross to C4 600/625 0,00E+00 0,00E+00	MND - 124 Creas fee C4 1200/1230 0,00E +00 0,00E +00		
		A4 A5 B1-B7 C1 C2 C3 C4 D Total A-C A1-A3 A4 A5	MND	- MND - T24 cross too C4 600,625 0,00E +00 0,00E +00 0,00E +00	MND T36 Cress tee C4 1200/1250 0,00E +00 0,00E +00 0,00E +00		
6	reovery - kg/FU	A4 A5 B1-B7 C1 C2 C3 C4 D Total A-C A1-A3 A4 A5 B1-B7	MND 124 Milan runner C4 0,00E +00 0,00E +00 0,00E +00 0,00E +00	MND	MND T36 Crass test C4 1200/7250 0,00E +00 0,00E +00 0,00E +00 0,00E +00		
6	reovery - kg/FU	A4 A5 B1-B7 C1 C2 C3 C4 D Total A-C A1-A3 A4 A5 B1-B7 C1			MND T36 Cress tee C4 1200/250 0,00E +00 0,00E +00 0,00E +00 0,00E +00 0,00E +00		
	reovery - kg/FU	A4 A5 B1-B7 C1 C2 C3 C4 D Total A-C A1-A3 A4 A5 B1-B7 C1 C2		MND 124 Cross teo C4 600,623 0,00E +00 0,00E +00	MND T34 Cress tee C4 1300/230 0,00E +00		
⊙	reovery - kg/FU	A4 A5 B1-B7 C1 C2 C3 C4 D Total A-C A1-A3 A4 A5 B1-B7 C1 C2 C3			MND T36 Cress tee C4 1200/250 0,00E +00 0,00E +00 0,00E +00 0,00E +00 0,00E +00		
6	reovery - kg/FU	A4 A5 B1-B7 C1 C2 C3 C4 D Total A-C A1-A3 A4 A5 B1-B7 C1 C2 C3 C4	MND	MND T34 Cross text C4 600,025 0,00E +00	MND Tal Creat tea Cd. 1300/250 0,00E +00		

Summary

Aggregation of results from A1 to C4 in selected impact categories.

	T 24 M ain runner C 4	T 24 C ross tee C 4 600/625	T 24 C ross tee C 4 1200/1250
Global warming kg CO ₂ equiv/FU	1,40	1,37	1,22
Non-renewable resources consumption [1] MJ/FU	14,3	13,6	12,4
Energy consumption [2] MJ/FU	16,2	15,5	14,1
Water consumption [3] m³/FU	0,009	0,009	0,008
Waste production [4]	0,11	0,12	0,08

^[1] This indicator corresponds to the abiotic depletion potential of fossil resources.

^[2] This indicator corresponds to the total use of primary energy.

^[3] This indicator corresponds to the use of net fresh water.

^[4] This indicator corresponds to the sum of hazardous, non-hazardous and radioactive waste disposed.

Reference list

Reach: EU REACH Regulation (EC) No 1907/2006

LCA report: Project report on Ecophon Grids LCA 2021-12-06

EN 15804:2012+A1:2013: Sustainability of construction works - Environmental product declarations

PCR 2012:01 Construction products and construction services (version 2.33 dated 2020-09-18)

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