

Environmental Product Declaration

In accordance with ISO 14025 and EN 15804 +A2



The Norwegian
EPD Foundation

Owner of the declaration:
Consolis Baltics

Program holder and publisher:
The Norwegian EPD foundation

Declaration number:
NEPD-3377-2001-EN

Registration Number:
NEPD-3377-2001-EN

Issue date: 16.03.2022
Valid to: 16.03.2027

**Pre-stressed Hollow Core
Slabs**

One Tonne average pre-stressed
hollow core slab

Manufacturer
Consolis Baltics



General information

Product:

Pre-stressed Hollow Core Slabs

Program Operator:

The Norwegian EPD Foundation
Post Box 5250 Majorstuen, 0303 Oslo, Norway
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Declaration Number:

NEPD-3377-2001-EN

This declaration is based on Product Category Rules:

NPCR 020 Part B for concrete and concrete elements v2.0

Statements:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer, life cycle assessment data and evidences.

Declared unit:

1 tonne

Functional unit:

One tonne average Pre-stressed Hollow Core Slab. The product is an average based on yearly production of the production locations which are part of Consolis Baltic. Materials used for assembly are not included in this LCA.

Verification:

Independent verification of the declaration and data, according to ISO14025:2010

internal

external



Elisabet Amat

Independent verifier approved by EPD Norway

Owner of the declaration:

Consolis Baltics
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Manufacturer:

Consolis Baltics
Tammi tee 51
76915 Harju maakond, Vatsla (EE)
Phone: +372 6712 500
e-mail: infobaltics@consolis.com

Place of production:

Trakai factory, Trakai, Lithuania (UAB Betonika)
Harku factory, Vatsla, Estonia (OÜ E-Betoonement)
Salaspils factory, Salaspils, Latvia (Consolis Latvija SIA)
Tamsalu factory, Lääne-Viru, Estonia(OÜ E-Betoonement)
Rumbula factory, Stopiņu novads, Latvia (Consolis Latvija SIA)

Management system:

ISO 14001:2015

Organisation no:

EE100432112

Issue date:

16.03.2022

Valid to:

16.03.2027

Year of study:

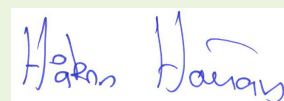
2020

Comparability:

EPDs from other programmes than EPD Norge may not be comparable.

The EPD has been worked out by:

Gert Jan van Beijnum[NIBE bv]



Approved (Manager of EPD Norway)

Product

Product description:

Pre-stressed Hollow core slabs with concrete compressive strength class at least C45/55. Hollow core elements are used in floors and roofs and similar applications in residential, commercial and other buildings. The precast concrete slab has tubular voids extending the full length of the slab. This makes the slab much lighter than a massive solid concrete floor slab of equal thickness or strength. The reduced weight also lowers material and transportation costs. The slabs come in standard widths of 1200 mm, but can be catted in specified width according to specifications.

The EPD can be used for the following hole cover elements with theoretical reinforcement amount as specified:

HCE 200, HCE 220, HCE 250, HCE 265, HCE 300, HCE 320, HCE 400, HCE 500.

The results declared in this LCA are applicable for the most common composition, as described in the functional unit, produced by Consolis Baltics for the Baltic states and Nordics market.



Product specification:

The average Pre-stressed Hollow Core Slabs produced by Consolis Baltic consists of the following raw materials:

Materials	KG	%
Cement CEMI 42,5 R	70	7%
Cement CEMI 52,5 R	56	6%
Gravel	40	4%
Gravel rubble	55	6%

Sand	331	33%
Lime stone	370	37%
Filler	9	1%
Additives	1	0%
Water	55	6%
Prestressed steel	12	1%
Reinforcement bar	0,001	0%

Technical data:

- Length – up to 19 m
- Width – up to 1,2 m
- Thickness – up to 0,5 m
- Density concrete 2400 kg/m³
- Weight up to 15 T
- Fire resistance up to R120

The concrete is produced in accordance with EN 206 and complimentary national requirements: SS 137003, NS-EN 206 + NA, SFS 7022, DS/EN 206 DK NA. The elements are manufactured in accordance with EN 1168 and EN 13369.

Market:

Nordic countries and Baltic states

Reference service life, product:

For construction elements the product reference service life is equal to the service life time of the building. Therefore the RSL of the product is set to the reference study period of 60 years for the building.

Reference service life, building:

The service life time of the building is 60 years

LCA: Calculation rules

Declared unit:

Tonne

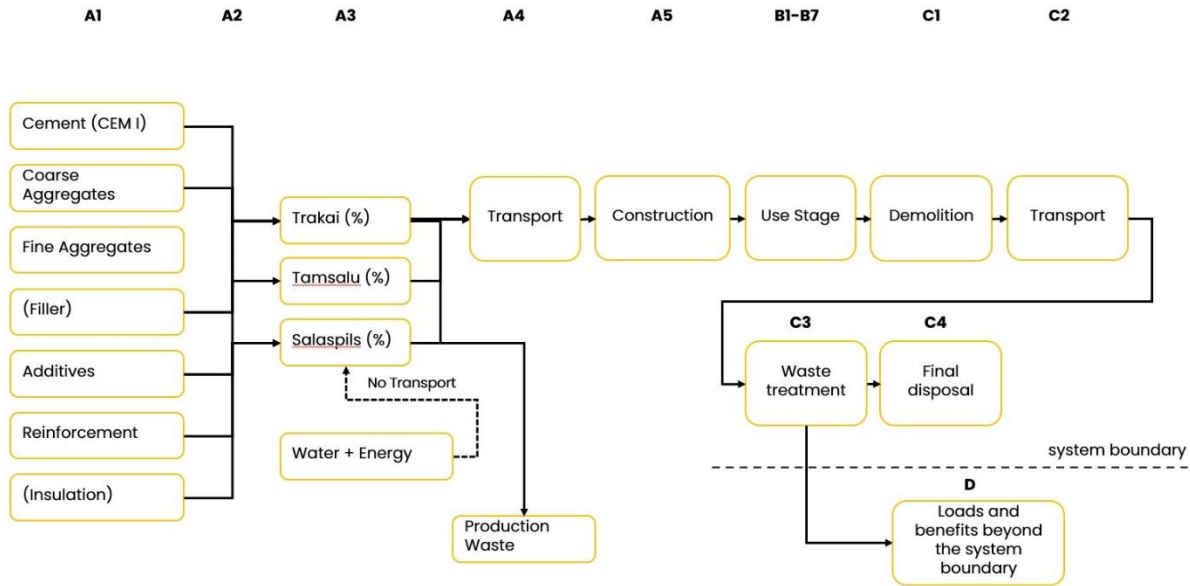
Data quality:

Data for the recipes, energy use and waste are based on the production year 2020. Background data is based on EPDs and EcoInvent 3.6. Foreground data is <2 years and background data <10 years. The data quality is considered to be good.

Allocation:

The allocation is made in accordance with the provisions of EN 15804. Incoming energy and production waste of concrete and reinforcement is allocated equally among all products through mass allocation.

System boundary:



LCA is performed as a “Cradle-to-grave” type of EPD. All major materials, production energy use and waste are included for phases A1, A2, A3, A4, A5, C1, C2, C4. Use stage B1-B7 are considered but not relevant for this type of product. All life cycle impacts are included, see flowchart above.

Cut-off criteria:

All major raw materials and all the essential energy is included. The production process for raw materials and energy flows that have very small amounts (<1%) are not included. This cut-off rule does not apply for hazardous materials and substances. Materials used for assembly are not included in this LCA.

LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

Transport from production place to assembly/user (A4)

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance KM	Fuel/Energy consumption	value (l/t)
Scenario 1: Local market					

Truck	50	Truck >32t, EURO 5	1	0.0158 kg diesel/TKM	0.0189
Scenario 2: Sweden, Stockholm					
Truck	50	Truck >32t, EURO 5	279	0.0155 kg diesel/TKM	5.67
Boat	Not available	Ferry	279	0,001224kg HFO / TKM	0.37

Transportation from one of the production sites of Consolis Baltic in Estonia, Latvia and Lithuania to a customer at the local market or Sweden.

Assembly (A5)

	Unit	Value
Electricity consumption	kWh	2.76
Material loss	Kg	0
Output materials from waste treatment	Kg	0

Materials used for assembly are not included in this LCA.

Use (B1)

No significant environment impact in the use stage modules, because there is no (significant) emissions to air, soil or water.

Maintenance (B2)/Repair (B3)

No significant environment impact in the use stage modules, because no (planned) maintenance or repair needed in the use stage.

Replacement (B4)/Refurbishment (B5)

Replacement and refurbishment are not relevant.

Operational energy (B6) and water consumption (B7)

Modules B6-B7 are not relevant according to NPCR020 and are not included.

End of Life (C1, C3, C4)

	Unit	Value
Hazardous waste disposed	Kg	0
Collected as mixed construction waste	Kg	1000
Reuse	Kg	0
Recycling	Kg	989.5
Energy recovery	Kg	0
To landfill	Kg	10.5

Energy use for demolition is based IVL report NR U 5176 (Erlandsson & Petersson 2015). In this study, a general value of 10kWh/ton is given for the demolition of a concrete frame.

The end-of-waste point for concrete is assumed to be clean granulate ready for use in another productsystem. Energy use of 2kWh/ton is used for the demolition of a concrete frame (IVL report NR U 5176, Erlandsson & Petersson 2015).

For concrete an end of life scenario of 99% recycling (C3) and 1% landfill (C4) is assumed. For reinforcing steel a end-of-life scenario of 95% recycling (C3) and 5% (C4) landfill is taken into account.

Transport to waste processing (C2)

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance KM	Fuel/Energy consumption	value (l/t)
Truck	46	Lorry, unspecified	35	0.01917 kg Diesel / TKM	0.7988

Benefits and loads beyond the system boundaries (D)

	Unit	Value
Concrete primary equivalent: gravel, round	kg	-977.72 (benefit)
Reinforcement primary equivalent: World Steel method (Steel production, electric, low-alloyed - Steel production, converter, unalloyed)	kg	-8.85 (benefit)

LCA: Results

System boundaries (X=included, MND= module not declared, MNR=module not relevant)

Product stage			Assembly stage		Use stage							End of life stage				Benefits & loads beyond system boundary
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
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	MNR	MNR	MNR	MNR	X	X	X	X	X

Core environmental impact indicators

Indicator	Unit	A1	A2	A3	A1-A3	A4/s1	A4/s2	A5	B1-B7	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,41E+02	8,46E+00	1,65E+01	1,66E+02	7,34E-02	5,26E+01	1,21E+00	MNR	3,30E+00	3,18E+00	6,45E-01	5,54E-02	-1,66E+01
GWP-fossil	kg CO2 eq.	1,39E+02	8,45E+00	1,59E+01	1,64E+02	7,33E-02	5,26E+01	1,17E+00	MNR	3,30E+00	3,18E+00	6,45E-01	5,53E-02	-1,67E+01
GWP-biogenic	kg CO2 eq.	1,32E+00	6,05E-03	6,02E-01	1,93E+00	5,05E-05	8,56E-03	3,55E-02	MNR	9,17E-04	2,31E-03	1,79E-04	1,10E-04	1,12E-01
GWP-LULUC	kg CO2 eq.	1,31E-01	2,56E-03	2,47E-02	1,58E-01	1,96E-05	2,47E-02	2,72E-03	MNR	2,60E-04	9,29E-04	5,08E-05	1,54E-05	4,91E-03
ODP	kg CFC11 eq.	4,97E-06	2,00E-06	1,69E-06	8,66E-06	1,72E-08	1,13E-05	9,91E-08	MNR	7,12E-07	7,48E-07	1,39E-07	2,28E-08	-7,17E-07
AP	mol H ⁺ eq.	3,59E-01	3,94E-02	7,08E-02	4,69E-01	3,02E-04	1,08E+00	6,83E-03	MNR	3,45E-02	1,34E-02	6,74E-03	5,25E-04	-7,83E-02
EP-freshwater	kg P eq.	7,87E-03	6,47E-05	5,06E-04	8,44E-03	5,14E-07	2,71E-04	1,25E-04	MNR	1,20E-05	2,43E-05	2,35E-06	6,20E-07	-5,97E-04
EP-marine	kg N eq.	8,74E-02	1,17E-02	2,04E-02	1,19E-01	9,13E-05	2,75E-01	8,67E-04	MNR	1,52E-02	4,02E-03	2,98E-03	1,80E-04	-1,75E-02
EP-terrestrial	mol N eq.	1,01E+00	1,30E-01	2,40E-01	1,38E+00	1,01E-03	3,05E+00	1,07E-02	MNR	1,67E-01	4,45E-02	3,27E-02	1,99E-03	-2,04E-01
POCP	kg NMVOC eq.	3,20E-01	4,08E-02	6,34E-02	4,24E-01	3,21E-04	8,06E-01	2,71E-03	MNR	4,59E-02	1,43E-02	8,98E-03	5,78E-04	-9,89E-02
ADP-M&M	kg Sb eq.	1,19E-03	1,45E-04	1,24E-04	1,46E-03	1,13E-06	5,45E-04	8,58E-06	MNR	5,06E-06	5,43E-05	9,89E-07	5,06E-07	-2,13E-04
ADP-fossil	MJ	8,18E+02	1,32E+02	1,66E+02	1,12E+03	1,13E+00	7,30E+02	2,42E+01	MNR	4,54E+01	4,95E+01	8,87E+00	1,55E+00	-1,39E+02
WDP	m ³	1,44E+03	4,28E-01	6,67E+01	1,50E+03	3,35E-03	1,52E+00	2,70E-01	MNR	6,08E-02	1,61E-01	1,19E-02	6,93E-02	-6,13E+01

GWP-total: Global Warming Potential; **GWP-fossil:** Global Warming Potential fossil fuels; **GWP-biogenic:** Global Warming Potential biogenic; **GWP-LULUC:** Global Warming Potential land use and land use change; **ODP:** Depletion potential of the stratospheric ozone layer; **AP:** Acidification potential, Accumulated Exceedance; **EP-freshwater:** Eutrophication potential, fraction of nutrients reaching freshwater end compartment; See “additional Norwegian requirements” for indicator given as PO4 eq. **EP-marine:** Eutrophication potential, fraction of nutrients reaching freshwater end compartment; **EP-terrestrial:** Eutrophication potential, Accumulated Exceedance; **POCP:** Formation potential of tropospheric ozone; **ADP-M&M:** Abiotic depletion potential for non-fossil resources (minerals and metals); **ADP-fossil:** Abiotic depletion potential for fossil resources; **WDP:** Water deprivation potential, deprivation weighted water consumption

Additional environmental impact indicators

Indicator	Unit	A1	A2	A3	A1-A3	A4/s1	A4/s2	A5	B1-B7	C1	C2	C3	C4	D
PM	Disease incidence	3,95E-06	7,60E-07	1,31E-06	6,02E-06	6,11E-09	2,76E-06	1,79E-08	MNR	9,14E-07	2,88E-07	1,79E-07	1,02E-08	-1,24E-06
IRP	kBq U235 eq.	2,81E+00	5,78E-01	6,60E-01	4,05E+00	4,93E-03	3,16E+00	2,12E-01	MNR	1,95E-01	2,16E-01	3,80E-02	6,34E-03	9,05E-03
ETP-fw	CTUe	2,37E+03	1,05E+02	2,96E+02	2,77E+03	8,71E-01	5,09E+02	1,66E+01	MNR	2,74E+01	3,94E+01	5,35E+00	1,00E+00	-5,05E+02
HTP-c	CTUh	1,63E-07	2,64E-09	1,62E-08	1,82E-07	2,08E-11	2,22E-08	4,28E-10	MNR	9,56E-10	9,71E-10	1,87E-10	2,32E-11	-4,68E-09
HTP-nc	CTUh	2,00E-06	1,19E-07	4,19E-07	2,53E-06	9,58E-10	4,81E-07	1,46E-08	MNR	2,35E-08	4,48E-08	4,59E-09	7,12E-10	2,36E-06
SQP	Dimensionless	2,41E+02	1,50E+02	4,72E+02	8,62E+02	1,19E+00	4,11E+02	5,90E+00	MNR	5,79E+00	5,67E+01	1,13E+00	3,24E+00	-8,55E+01

PM: Particulate matter emissions; **IRP:** Ionising radiation, human health; **ETP-fw:** Ecotoxicity (freshwater); **ETP-c:** Human toxicity, cancer effects; **HTP-nc:** Human toxicity, non-cancer effects; **SQP:** Land use related impacts / soil quality

Classification of disclaimers to the declaration of core and additional environmental impact indicators

ILCD classification	Indicator	Disclaimer
ILCD type / level 1	Global warming potential (GWP)	None
	Depletion potential of the stratospheric ozone layer (ODP)	None
	Potential incidence of disease due to PM emissions (PM)	None
	Acidification potential, Accumulated Exceedance (AP)	None
ILCD type / level 2	Eutrophication potential, Fraction of nutrients reaching freshwater end compartment (EP-freshwater)	None
	Eutrophication potential, Fraction of nutrients reaching marine end compartment (EP-marine)	None
	Eutrophication potential, Accumulated Exceedance (EP-terrestrial)	None
	Formation potential of tropospheric ozone (POCP)	None
	Potential Human exposure efficiency relative to U235 (IRP)	1
	Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)	2

ILCD type / level 3	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	2
	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	2
	Potential Comparative Toxic Unit for humans (HTP-c)	2
	Potential Comparative Toxic Unit for humans (HTP-nc)	2
	Potential Soil quality index (SQP)	2
<p>Disclaimer 1 – This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.</p> <p>Disclaimer 2 – The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator</p>		

Resource use

Parameter	Unit	A1	A2	A3	A1-A3	A4/s1	A4/s2	A5	B1-B7	C1	C2	C3	C4	D
RPEE	MJ	5,17E+01	1,66E+00	1,18E+02	1,71E+02	1,32E-02	6,43E+00	4,68E+00	MNR	2,46E-01	6,23E-01	4,80E-02	1,25E-02	-9,87E-01
RPEM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
TPE	MJ	5,17E+01	1,66E+00	1,18E+02	1,71E+02	1,32E-02	6,43E+00	4,68E+00	MNR	2,46E-01	6,23E-01	4,80E-02	1,25E-02	-9,87E-01
NRPE	MJ	8,57E+02	1,40E+02	1,78E+02	1,18E+03	1,20E+00	7,75E+02	2,54E+01	MNR	4,82E+01	5,25E+01	9,42E+00	1,64E+00	-1,46E+02
NRPM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
TRPE	MJ	8,57E+02	1,40E+02	1,78E+02	1,18E+03	1,20E+00	7,75E+02	2,54E+01	MNR	4,82E+01	5,25E+01	9,42E+00	1,64E+00	-1,46E+02
SM	kg	1,22E+00	0,00E+00	1,27E-01	1,35E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	2,81E-02	0,00E+00	1,36E-03	2,94E-02	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
W	m ³	1,28E+00	1,50E-02	1,80E-02	1,31E+00	1,18E-04	5,44E-02	2,05E-02	MNR	2,34E-03	5,64E-03	4,57E-04	1,65E-03	-1,42E+00

RPEE Renewable primary energy resources used as energy carrier; RPEM Renewable primary energy resources used as raw materials; TPE Total use of renewable primary energy resources; NRPE Non renewable primary energy resources used as energy carrier; NRPM Non renewable primary energy resources used as materials; TRPE Total use of non renewable primary energy resources; SM Use of secondary materials; RSF Use of renewable secondary fuels; NRSF Use of non renewable secondary fuels; W Use of net fresh water

End of life - Waste

Parameter	Unit	A1	A2	A3	A1-A3	A4/s1	A4/s2	A5	B1-B7	C1	C2	C3	C4	D
HW	KG	1,22E+00	3,19E-04	5,93E-02	1,28E+00	2,76E-06	1,19E-03	1,61E-05	MNR	1,24E-04	1,20E-04	2,42E-05	2,31E-06	-1,62E-03
NHW	KG	3,00E+01	1,14E+01	3,66E+00	4,51E+01	8,94E-02	2,78E+01	8,18E-02	MNR	5,37E-02	4,30E+00	1,05E-02	1,05E+01	-1,79E+00
RW	KG	2,64E-03	9,04E-04	6,62E-04	4,21E-03	7,74E-06	5,06E-03	1,73E-04	MNR	3,15E-04	3,38E-04	6,16E-05	1,01E-05	-1,49E-04

HW Hazardous waste disposed; NHW Non hazardous waste disposed; RW Radioactive waste disposed

End of life – output flow

Parameter	Unit	A1	A2	A3	A1-A3	A4	A4/s2	A5	B1-B7	C1	C2	C3	C4	D
CR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MR	kg	1,45E-04	0,00E+00	6,16E+01	6,16E+01	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	9,90E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ETE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

CR Components for reuse; MR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exported thermal energy

Reading example: 9,0 E-03 = 9,0*10⁻³ = 0,009

Information describing the biogenic carbon content at the factory gate

Biogenic carbon content	Unit	Value
Biogenic carbon content in product	kg C	0
Biogenic carbon content in the accompanying packaging	kg C	0

Additional Norwegian requirements

Greenhouse gas emission from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

National electricity grid	Unit	Value
Estonia, renewable source (Eurostat 2019)	kg CO ₂ -eq/kWh	1.77E-01
Latvia	kg CO ₂ -eq/kWh	5.62E-01
Lithuania	kg CO ₂ -eq/kWh	3.89E-01
Photovoltaic, slanted roof installation, Multi SI	kg CO ₂ -eq/kWh	7.70E-02

Additional environmental impact indicators required in NPCR Part A for construction products

In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator for GWP has been sub-divided into the following:

GWP-IOBC Climate impacts calculated according to the principle of instantaneous oxidation

GWP-BC Climate impacts from the net uptake and emission of biogenic carbon from each module.

In addition, EP-freshwater shall also declared as PO4 eq.

Indicator	Unit	A1	A2	A3	A1-A3	A4/s1	A4/s2	A5	B1-B7	C1	C2	C3	C4	D
EP-freshwater*	kg PO4 eq.	7,87E-03	6,47E-05	5,06E-04	8,44E-03	5,14E-07	2,71E-04	1,25E-04	MNR	1,20E-05	2,43E-05	2,35E-06	6,20E-07	-5,97E-04
GWP-IOBC	kg CO2 eq.	1,31E-01	2,56E-03	2,47E-02	1,58E-01	1,96E-05	2,47E-02	2,72E-03	MNR	2,60E-04	9,29E-04	5,08E-05	1,54E-05	4,91E-03
GWP-BC	kg CO2 eq.	1,32E+00	6,05E-03	6,02E-01	1,93E+00	5,05E-05	8,56E-03	3,55E-02	MNR	9,17E-04	2,31E-03	1,79E-04	1,10E-04	1,12E-01
GWP	kg CO2 eq.	1,39E+02	8,45E+00	1,59E+01	1,64E+02	7,33E-02	5,26E+01	1,17E+00	MNR	3,30E+00	3,18E+00	6,45E-01	5,53E-02	-1,67E+01

EP-freshwater* Eutrophication potential, fraction of nutrients reaching freshwater end compartment. Declared as PO4 eq. **GWP-IOBC** Global warming potential calculated according to the principle of instantaneous oxidation. **GWP-BC** Global warming potential from net uptake and emissions of biogenic carbon from the materials in each module. **GWP** Global warming potential

Hazardous substances

The declaration is based upon reference to threshold values and/or test results and/or material safety data sheets provided to EPD verifiers. Documentation available upon request to EPD owner.

The product contains no substances given by the REACH Candidate list or the Norwegian priority list. The product is classified as hazardous waste (Avfallsforskriften, Annex III), see table.

Indoor environment

The product meets the requirements for low emissions.





Not relevant

Carbon footprint

Carbon footprint has not been worked out for the product.

Bibliography

ISO 14025:2010	Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ISO 14044:2006	Environmental management - Life cycle assessment - Requirements and guidelines
EN 15804:2012+A2:2019	Sustainability of construction works - Environmental product declaration - Core rules for the product category of construction products
ISO 21930:2007	Sustainability in building construction - Environmental declaration of building products
NCPR 020	NPCR 020 version 2.0 (20.09.2021), PCR - Part B for Concrete and concrete elements
NR U 5176	Klimatpåverkan för byggnader med olika energiprestanda, IVL Svenska Miljöinstitutet (Erlandsson and Pettersson, 2015)

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